



# **QUARTERLY AQUATIC ANIMAL DISEASE REPORT (Asia and Pacific Region)**

**July-September 2009**

Published by the

**Network of Aquaculture Centres  
in Asia-Pacific**

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Organization of the United Nations**

Viale delle Terme di Caracalla  
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January 2010



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## Foreword

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### SPS Measures and OIE Standards

In this foreword, an attempt is made to re-emphasize the importance of understanding the SPS agreement and the OIE Aquatic Animal Health Standards so that trade in live aquatic animals and their products can progress responsibly and thereby minimize the risk of introduction and spread of dangerous aquatic animal pathogens.

“Sanitary and phytosanitary measures”: any measures applied: (i) to protect human or animal life from risks arising from additives, contaminants, toxins or disease-causing organisms in their food (ii) to protect human life from plant- or animal-carried diseases and (iii) to protect animal or plant life from pests, diseases, or disease-causing organisms. The basic aim of SPS Agreement is to maintain the sovereign right of any government to provide the level of health protection it deems appropriate, but to ensure that these sovereign rights are not misused for protectionist purposes and do not result in unnecessary barriers to international trade. SPS measures are to be based on the assessment of risks to humans, animals or plants, using internationally accepted risk assessment techniques and taking into account the available scientific evidence. SPS measures should minimize negative trade effects and arbitrary and unjustified measures should not be considered

The SPS Agreement encourages governments to establish national SPS measures consistent with international standards, guidelines and recommendations. The WTO itself does not develop such standards. However, most of the WTO’s member governments participate in the development of these standards in other international bodies. For animal health (including aquatic animal), this international body is the OIE. Members are encouraged to use international standards, guidelines and recommendations where they exist. However, members may use measures which result in higher standards if there is scientific justification. They can set higher standards based on appropriate assessment of risks so long as the approach is consistent, not arbitrary and based on scientific risk analysis.

The OIE aquatic standards refer to the *Aquatic Animal Health Code* and the *Manual of Diagnostic Tests for Aquatic Animals*. The OIE develops normative documents relating to rules that OIE Member Countries can use to protect themselves from diseases without setting up unjustified sanitary barriers. The OIE aquatic standards (the *Aquatic Animal Health Code* and the *Manual of Diagnostic Tests for Aquatic Animals*) are prepared by the Aquatic Animals Commission with the assistance of internationally renowned experts, individually, or through *ad hoc* groups.

The aim of OIE Aquatic Code is to assure the sanitary safety of international trade in aquatic animals (fish, molluscs and crustaceans) and their products. The Code provides details of all health measures to be used by the veterinary or other competent authorities of importing and exporting countries. In the Aquatic Code, reference is made only to the aquatic animal health situation in the exporting country, assuming that either the disease is not present in the importing country or is the subject of a control or eradication programme. Therefore, when determining its

import measures, an importing country should do so in a way that is consistent with the principle of national treatment and the other provisions of the WTO SPS Agreement.

Part 1 of the *Aquatic Code* provides *General provisions that OIE Member Countries can adopt to prevent and control aquatic animal disease*

- Notification systems
- Obligations and ethics in international trade (including certification procedures)
- Responsibilities of the importing country
- Responsibilities of the exporting country
- principles of conducting risk analyses
- Import/export procedures” and describes aquatic animal health measures applicable before departure, during transit, and on arrival
- guidelines for “Contingency plans

Part 2 of the *Aquatic Code* provides disease specific provisions. The recommendations in each of the chapters in Part 2 of the *Aquatic Code* are designed to minimise the risk of specific diseases being introduced and established in the importing country, taking into account the nature of the commodity and the aquatic animal health status of the exporting country. Disease specific measures are provided for surveillance (for declaring freedom from disease) and commodities.

Disease specific list of safe commodities have been provided for which, when authorising import or transit, Competent Authorities should not require any conditions relating to the disease in question, regardless of the status of the exporting country, zone or compartment for that disease. This concept was introduced to provide better guidance to Member Countries on commodities that can be traded safely and also to better reflect the realities of trade.

For all other commodities, a key aspect of the new disease chapters – which is consistent with the SPS Agreement – is that importing countries should not simply reject a commodity because it is deemed “too risky”. Importing countries should assess the risk and try to manage it down to an acceptable level. To aid this process, the new chapters provide guidance on disease-specific risk management measures. These depend on the status of the exporting country, zone or compartment for that disease and also take into account the intended end-use for the traded commodity (for example, release into aquaculture, or direct human consumption).

The following diseases are listed by the OIE in the *Aquatic Animal Health Code 2009*:

#### **Diseases of Fish**

- Epizootic haematopoietic necrosis
- Infectious haematopoietic necrosis
- Spring viraemia of carp
- Viral haemorrhagic septicaemia
- Infectious salmon anaemia
- Epizootic ulcerative syndrome
- Gyrodactylosis (*Gyrodactylus salaris*)
- Red sea bream iridoviral disease
- Koi herpesvirus disease

### **Diseases of Molluscs**

- Infection with *Bonamia ostreae*
- Infection with *Bonamia exitiosa*
- Infection with *Marteilia refringens*
- Infection with *Perkinsus marinus*
- Infection with *Perkinsus olseni*
- Infection with *Xenohalictis californiensis*
- Infection with abalone herpes-like virus

### **Diseases of Crustaceans**

- Taura syndrome
- White spot disease
- Yellowhead disease
- Infectious hypodermal and haematopoietic necrosis
- Crayfish plague (*Aphanomyces astaci*)
- White tail disease
- Infectious myonecrosis
- Necrotising hepatopancreatitis (listing of the disease is under study)
- Milky haemolymph disease of spiny lobster (*Panulirus* spp) (listing of the disease is under study)

### **Diseases of Amphibians**

- Infection with ranavirus
- Infection with *Bachtrachomyxium dendrobatidis*

For further information, please refer to the *Aquatic Code* and *Aquatic Manual*. Both the documents can be downloaded from OIE website [www.oie.int](http://www.oie.int)

The QAAD list for 2010 has been revised in the recent Asia Regional Aquatic Animal Health Advisory Group meeting held in Bangkok, on 2-4 December 2009. Revisions made to the QAAD list reflect the changes made to the OIE list and also consider diseases of significance to the region. The revised QAAD list for 2010 will be published in the next QAAD 2009/4 in April 2010.

## **Reports Received by the NACA Secretariat**

Country: AUSTRALIAPeriod: July-September 2009

| Item                                                                 | Disease status <sup>a/</sup> |         |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|---------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |         |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August  | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |         |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |         |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | -(2008)                      | -(2008) | -(2008)   |                    | 1                               |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000    | 0000      |                    |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000    | 0000      |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000    | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | -(2009)                      | -(2009) | +         | II                 | 2                               |
| 6. Red seabream iridoviral disease                                   | 0000                         | 0000    | 0000      |                    |                                 |
| 7. Koi herpesvirus disease                                           | 0000                         | 0000    | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |         |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | 0000                         | 0000    | 0000      |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | -(2009)                      | +       | -(2009)   | III                | 3                               |
| 10. Enteric septicaemia of catfish                                   | -(2008)                      | -(2008) | -(2008)   |                    | 4                               |
| <b>MOLLUSC DISEASES</b>                                              |                              |         |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |         |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000    | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | -(2009)                      | -(2009) | -(2009)   |                    | 5                               |
| 3. Abalone viral mortality                                           | 0000                         | 0000    | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |         |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000    | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | ***                          | ***     | ***       |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000    | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |         |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |         |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000    | 0000      |                    |                                 |
| 2. White spot disease                                                | 0000                         | 0000    | 0000      |                    |                                 |
| 3. Yellowhead disease                                                | 0000                         | 0000    | 0000      |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | -(2008)                      | -(2008) | -(2008)   |                    | 6                               |
| 5. Infectious hypodermal and haematopoietic necrosis                 | -(2008)                      | -(2008) | -(2008)   |                    | 7                               |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000    | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000    | 0000      |                    |                                 |
| 8. White tail disease (MrNV)                                         | -(2008)                      | -(2008) | -(2008)   |                    | 8                               |
| 9. Necrotising hepatopancreatitis                                    | ***                          | ***     | ***       |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | ***                          | ***     | ***       |                    |                                 |
| 11. Mourilyan disease                                                | ***                          | ***     | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |         |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | 0000                         | 0000    | 0000      |                    |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000    | 0000      |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |         |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |         |           |                    |                                 |
| 1. Infection with Ranavirus                                          | -(2008)                      | -(2008) | -(2008)   |                    | 9                               |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | -(2009)                      | -(2009) | -(2009)   |                    | 10                              |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   |          |                                                                         |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------|-----|----|--|--|------|-------------------------------------|---|-----------------------------------------|-----|--------------------------|----|-----------------------------------------------------------------------------------|------|----------------|---|-----------------------------------------------------------|----------|-------------------------------------------------------------------------|
| 1. Abalone viral ganglioneuritis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -(2009)                                                                           | +        | +                                                                       | III | 11 |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |          |                                                                         |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                              |                                                                                   |          |                                                                         |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| <p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;"></td> <td style="width: 45%;"></td> <td style="width: 15%; text-align: center;">+( )</td> <td style="width: 25%;">Occurrence limited to certain zones</td> </tr> <tr> <td>+</td> <td>Disease reported or known to be present</td> <td style="text-align: center;">***</td> <td>No information available</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="text-align: center;">0000</td> <td>Never reported</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td style="text-align: center;">- (year)</td> <td>Not reported (but disease is known to occur)<br/>Year of last occurrence</td> </tr> </table> |                                                                                   |          |                                                                         |     |    |  |  | +( ) | Occurrence limited to certain zones | + | Disease reported or known to be present | *** | No information available | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | 0000 | Never reported | ? | Suspected by reporting officer but presence not confirmed | - (year) | Not reported (but disease is known to occur)<br>Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                   | +( )     | Occurrence limited to certain zones                                     |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Disease reported or known to be present                                           | ***      | No information available                                                |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Serological evidence and/or isolation of causative agent but no clinical diseases | 0000     | Never reported                                                          |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Suspected by reporting officer but presence not confirmed                         | - (year) | Not reported (but disease is known to occur)<br>Year of last occurrence |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                   |          |                                                                         |     |    |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |

### 1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | <p>Epizootic haematopoietic necrosis was not reported this period, but is known to occur annually in the Australian Capital Territory (last year reported 2008). Not reported this period despite passive surveillance, but known to have occurred previously in Victoria (last year reported 2004), New South Wales (last year reported 2003) and South Australia (last year reported 1992). Targeted surveillance and never reported in Tasmania. Passive surveillance and never reported in the Northern Territory, Queensland or Western Australia.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 2           | <p><b>Epizootic Ulcerative Syndrome</b></p> <ol style="list-style-type: none"> <li>1. <b>Reported in Queensland</b> in September 2009. Passive surveillance;</li> <li>2. <b>In</b> –adult sleepy cod (<i>Oxyeleotris lineolatus</i>);</li> <li>3. <b>Clinical signs</b>- brood fish showing skin lesions;</li> <li>4. <b>Pathogen</b>- <i>Aphanomyces invadans</i>;</li> <li>5. <b>Mortality rate</b>- nil;</li> <li>6. <b>Economic loss</b>- not applicable;</li> <li>7. <b>Geographic extent</b>-single hatchery pond;</li> <li>8. <b>Containment measures</b>- not applicable;</li> <li>9. <b>Laboratory confirmation</b>- Lesion had granulomatous dermatitis and myositis with granuloma formation around deeply penetrating fungal hyphae (GMS positive), typifying infection with <i>Aphanomyces invadans</i>;</li> <li>10. <b>Publications</b>- unpublished.</li> </ol> <p>Epizootic ulcerative syndrome was not reported during this period despite targeted surveillance, but is known to have occurred previously in South Australia (last year reported 2008). Not reported during this period despite passive surveillance, but is known to have occurred previously in New South Wales (last reported 2<sup>nd</sup> quarter 2009), Northern Territory (last year reported 2006), Western Australia where it is considered to be endemic (last year reported 2005) and Victoria (last year reported 2002). Passive surveillance and never reported in Tasmania. No information available in the Australian Capital Territory.</p> |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | <p><b>Viral Encephalopathy and Retinopathy</b></p> <ol style="list-style-type: none"> <li>1. <b>Reported in South Australia</b> in August 2009. Targeted surveillance;</li> <li>2. <b>In-</b> barramundi (<i>Lates calcarifer</i>) fry;</li> <li>3. <b>Clinical signs</b>-nervous signs and erratic swimming;</li> <li>4. <b>Pathogen</b>- Betanodavirus;</li> <li>5. <b>Mortality rate</b>-50%;</li> <li>6. <b>Economic loss</b>- not reported;</li> <li>7. <b>Geographic extent</b>- single hatchery tank;</li> <li>8. <b>Containment measures</b>- affected stock destroyed and tank disinfected;</li> <li>9. <b>Laboratory confirmation</b>- diagnosed by histopathology, RT-PCR and sequencing;</li> <li>10. <b>Publications</b>- unpublished.</li> </ol> <p>Viral encephalopathy and retinopathy was not reported this quarter despite passive surveillance from Queensland (last reported 2<sup>nd</sup> quarter 2009), New South Wales and Northern Territory (last year reported 2008), Western Australia (last year reported 2005) and Tasmania (last year reported 2000). Never reported from Victoria despite passive surveillance. No information available this period (no monitoring) in the Australian Capital Territory.</p> |
| 4 | <p>Enteric septicaemia of catfish was not reported this quarter despite passive surveillance but is known to have occurred previously in Queensland (last year reported 2008) and in Tasmania in zebrafish (<i>Brachydanio rerio</i>) in PC2 containment (last year reported 2001). Never reported in New South Wales, Northern Territory, South Australia and Victoria despite passive surveillance. No information available this period (no monitoring) in the Australian Capital Territory and Western Australia.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5 | <p>Infection with <i>Perkinsus olseni</i> was not reported this quarter from Western Australia despite targeted surveillance (last year reported 2003). Not reported this period despite passive surveillance from South Australia (last reported 1<sup>st</sup> quarter 2009), New South Wales (last year reported 2005). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 6 | <p>Spherical baculovirus was not reported this period despite passive surveillance but is known to have occurred previously in Queensland (last year reported 2008), New South Wales and Western Australia (last year reported 2002). Never reported despite passive surveillance in the Northern Territory, South Australia and Victoria. No information available in the Australian Capital Territory (no marine water responsibility) and Tasmania (susceptible species not present).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7 | <p>Infectious hypodermal and haematopoietic necrosis virus was not reported this period despite passive surveillance but is known to have occurred previously in Queensland (last year reported 2008) and Northern Territory (last year reported 2003). Never reported in Western Australia despite targeted surveillance. Passive surveillance and never reported in New South Wales, South Australia and Victoria. No information available in Australian Capital Territory (no marine responsibility) and Tasmania (susceptible species not present).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 8 | <p>White tail disease was not reported this period from Queensland despite passive surveillance (last year reported 2008). Passive surveillance and never reported from New South Wales and South Australia. No information available this period (no monitoring) in the Australian Capital Territory, Northern Territory, Tasmania, Victoria and Western Australia.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 9 | <p>Infection with ranavirus was suspected but not confirmed despite passive surveillance in Queensland. Not reported this period but known to have occurred previously in the Northern Territory (reported to have occurred in 2008). Passive surveillance and never reported in Tasmania. No information available this period (no monitoring) in the Australian Capital Territory, New South Wales, South Australia, Victoria and Western Australia.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | Infection with <i>Batrachochytrium dendrobatidis</i> was not reported this period despite targeted surveillance but is known to have occurred previously in Tasmania (last reported 1 <sup>st</sup> quarter 2009). Not reported this period despite passive surveillance but is known to have occurred previously in Western Australia (reported to have occurred in 2008). Suspected but not confirmed this period despite passive surveillance in Queensland. No information available this period (no monitoring) in the Australian Capital Territory, New South Wales, Northern Territory, South Australia and Victoria.                              |
| 11 | Abalone viral ganglioneuritis was detected in wild caught abalone held at a processing facility in Tasmania by histopathology and electron microscopy. The affected facility was destocked and disinfected. Not reported this period despite passive surveillance in Victoria, however some infection in wild abalone (but not farmed) is suspected to still be present in a small area of the central fishing zone. Passive surveillance and never reported in Queensland, New South Wales, South Australia and Western Australia. No information available in the Australian Capital Territory (no marine water responsibility) and Northern Territory. |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **BANGLADESH**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | -                            | -      | +         | I & II             | 1                               |
| 6. Red seabream iridoviral disease                                   | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Koi herpesvirus disease                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | 0000                         | 0000   | 0000      |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | 0000                         | 0000   | 0000      |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 2. White spot disease                                                | -                            | -      | -         |                    |                                 |
| 3. Yellowhead disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      |                    |                                 |
| 8. White tail disease (MrNV)                                         | 0000                         | 0000   | 0000      |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | 0000                         | 0000   | 0000      |                    |                                 |
| 11. Mourilyan disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | 0000                         | 0000   | 0000      |                    |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000   | 0000      |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                           |  |  |  |  |                                                                                                                                                                                                                 |                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                           |  |  |  |  |                                                                                                                                                                                                                 |                                                                                                                                                                                                           |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                           |  |  |  |  |                                                                                                                                                                                                                 |                                                                                                                                                                                                           |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                           |                                                                                                                                                                                                           |  |  |  |  |                                                                                                                                                                                                                 |                                                                                                                                                                                                           |
| <p>a/ Please use the following symbols:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>+ Disease reported or known to be present</p> <p>+? Serological evidence and/or isolation of causative agent but no clinical diseases</p> <p>? Suspected by reporting officer but presence not confirmed</p> </td> <td style="width: 50%; vertical-align: top;"> <p>+() Occurrence limited to certain zones</p> <p>*** No information available</p> <p>0000 Never reported</p> <p>- Not reported (but disease is known to occur)</p> <p>(year) Year of last occurrence</p> </td> </tr> </table> |                                                                                                                                                                                                           |  |  |  |  | <p>+ Disease reported or known to be present</p> <p>+? Serological evidence and/or isolation of causative agent but no clinical diseases</p> <p>? Suspected by reporting officer but presence not confirmed</p> | <p>+() Occurrence limited to certain zones</p> <p>*** No information available</p> <p>0000 Never reported</p> <p>- Not reported (but disease is known to occur)</p> <p>(year) Year of last occurrence</p> |
| <p>+ Disease reported or known to be present</p> <p>+? Serological evidence and/or isolation of causative agent but no clinical diseases</p> <p>? Suspected by reporting officer but presence not confirmed</p>                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>+() Occurrence limited to certain zones</p> <p>*** No information available</p> <p>0000 Never reported</p> <p>- Not reported (but disease is known to occur)</p> <p>(year) Year of last occurrence</p> |  |  |  |  |                                                                                                                                                                                                                 |                                                                                                                                                                                                           |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                           |  |  |  |  |                                                                                                                                                                                                                 |                                                                                                                                                                                                           |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                               |
|-------------|-------------------------------------------------------------------------------|
| 1           | EUS was reported in <i>Anabas testudineus</i> (Thai variety) during September |
| 2           |                                                                               |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **HONG KONG**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      | II                 |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      | III                |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      | III                |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      | III                |                                 |
| 5. Epizootic ulcerative syndrome                                     | 0000                         | 0000   | 0000      | II                 |                                 |
| 6. Red seabream iridoviral disease                                   | +                            | -      | -         | III                | 1                               |
| 7. Koi herpesvirus disease                                           | -                            | -      | -         | III                |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | -                            | -      | -         | III                |                                 |
| 9. Viral encephalopathy and retinopathy                              | -                            | -      | -         | III                |                                 |
| 10. Enteric septicaemia of catfish                                   | 0000                         | 0000   | 0000      | III                |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      | II                 |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      | II                 |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      | II                 |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      | II                 |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      | III                |                                 |
| 2. White spot disease                                                | +                            | -      | -         | III                | 2                               |
| 3. Yellowhead disease                                                | 0000                         | 0000   | 0000      | III                |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | 0000                         | 0000   | 0000      | II                 |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | 0000                         | 0000   | 0000      | II                 |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      | II                 |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      | II                 |                                 |
| 8. White tail disease (MrNV)                                         | 0000                         | 0000   | 0000      | II                 |                                 |
| 9. Necrotising hepatopancreatitis                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | 0000                         | 0000   | 0000      |                    |                                 |
| 11. Mourilyan disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | 0000                         | 0000   | 0000      | II                 |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000   | 0000      | II                 |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|--|--|--|--|---|-----------------------------------------|------|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                      |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;"></td> <td style="width: 45%;"></td> <td style="width: 15%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td>+</td> <td>Disease reported or known to be present</td> <td>+( )</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  |  |  |  |  | + | Disease reported or known to be present | +( ) | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Disease reported or known to be present                                           | +( )   | Occurrence limited to certain zones          |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   | (year) | Year of last occurrence                      |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |      |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                                                                                                     |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | Red seabream iridoviral disease was detected by PCR method in a batch of green grouper in a fish farm, mortality rate was about 70%. Clinical signs include whirling and lethargy. Histopathology changes consistent with the disease were observed |
| 2           | White spot disease was detected by PCR method in a population of red lobsters that had been submitted for health certification screening                                                                                                            |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **INDIA**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | -                            | -      | -         |                    |                                 |
| 6. Red seabream iridoviral disease                                   | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Koi herpesvirus disease                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | 0000                         | 0000   | 0000      |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | 0000                         | 0000   | 0000      |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 2. White spot disease                                                | -                            | +()    | +()       | 1                  | 1                               |
| 3. Yellowhead disease                                                | ***                          | ***    | ***       |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | -                            | -      | -         |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | ***                          | ***    | ***       |                    |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      |                    |                                 |
| 8. White tail disease (MrNV)                                         | -                            | -      | -         |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | 0000                         | 0000   | 0000      |                    |                                 |
| 11. Mourilyan disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | 0000                         | 0000   | 0000      |                    |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000   | 0000      |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|--|--|--|--|---|-----------------------------------------|-----|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                     |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> <td style="width: 10%;"></td> <td style="width: 30%;"></td> </tr> <tr> <td>+</td> <td>Disease reported or known to be present</td> <td>+()</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  |  |  |  |  | + | Disease reported or known to be present | +() | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Disease reported or known to be present                                           | +()    | Occurrence limited to certain zones          |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   | (year) | Year of last occurrence                      |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                         |
|-------------|---------------------------------------------------------------------------------------------------------|
| 1           | Incidence of white spot disease reported from Udupi district of Karnataka in August and September, 2009 |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **INDONESIA**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | ***                          | ***    | ***       |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | ***                          | ***    | ***       |                    |                                 |
| 3. Spring viraemia of carp                                           | ***                          | ***    | ***       |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | ***                          | ***    | ***       |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | ***                          | ***    | ***       |                    |                                 |
| 6. Red seabream iridoviral disease                                   | ***                          | ***    | ***       |                    |                                 |
| 7. Koi herpesvirus disease                                           | -                            | -      | +         | III                | 1                               |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | +                            | +      | +         | III                | 2                               |
| 9. Viral encephalopathy and retinopathy                              | +                            | +      | +         | III                | 3                               |
| 10. Enteric septicaemia of catfish                                   | ***                          | ***    | ***       |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Abalone viral mortality                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | +                            | +      | +         | III                | 4                               |
| 2. White spot disease                                                | +                            | +      | +         | III                | 5                               |
| 3. Yellowhead disease                                                | ***                          | ***    | ***       |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | ***                          | ***    | ***       |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | +                            | +      | +         | III                | 6                               |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | ***                          | ***    | ***       |                    |                                 |
| 7. Infectious myonecrosis                                            | +                            | +      | +         | III                | 7                               |
| 8. White tail disease (MrNV)                                         | ***                          | ***    | ***       |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | ***                          | ***    | ***       |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | ***                          | ***    | ***       |                    |                                 |
| 11. Mourilyan disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | ***                          | ***    | ***       |                    |                                 |
| 13. Milky lobster disease                                            | ***                          | ***    | ***       |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      |                    |                                 |

| ANY OTHER DISEASES OF IMPORTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   |             |                                                                         |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------|--|--|--|--|------|-------------------------------------|---|-----------------------------------------|-----|--------------------------|----|-----------------------------------------------------------------------------------|------|----------------|---|-----------------------------------------------------------|-------------|-------------------------------------------------------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                   |             |                                                                         |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   |             |                                                                         |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |
| <p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;"></td> <td style="width: 45%;"></td> <td style="width: 15%; text-align: center;">+( )</td> <td style="width: 25%;">Occurrence limited to certain zones</td> </tr> <tr> <td style="text-align: center;">+</td> <td>Disease reported or known to be present</td> <td style="text-align: center;">***</td> <td>No information available</td> </tr> <tr> <td style="text-align: center;">+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="text-align: center;">0000</td> <td>Never reported</td> </tr> <tr> <td style="text-align: center;">?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td style="text-align: center;">-<br/>(year)</td> <td>Not reported (but disease is known to occur)<br/>Year of last occurrence</td> </tr> </table> |                                                                                   |             |                                                                         |  |  |  |  | +( ) | Occurrence limited to certain zones | + | Disease reported or known to be present | *** | No information available | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | 0000 | Never reported | ? | Suspected by reporting officer but presence not confirmed | -<br>(year) | Not reported (but disease is known to occur)<br>Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   | +( )        | Occurrence limited to certain zones                                     |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Disease reported or known to be present                                           | ***         | No information available                                                |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Serological evidence and/or isolation of causative agent but no clinical diseases | 0000        | Never reported                                                          |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Suspected by reporting officer but presence not confirmed                         | -<br>(year) | Not reported (but disease is known to occur)<br>Year of last occurrence |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                   |             |                                                                         |  |  |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |             |                                                                         |

### 1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <p>1) -<br/>                 2) Species affected : Common carp (<i>Cyprinus carpio</i>);<br/>                 3) Clinical sign : low irritation on gill, fin and part of body, haemorrhage; no clinical sign on some samples<br/>                 4) Pathogen : Koi herpesvirus ;<br/>                 5) Mortality rate : low to high (30 to &gt;70%)<br/>                 6) Economic loss : -<br/>                 7) Names of infected areas : Cianjur District (West java), Sumedang District (West Java), Balangan District (South Kalimantan)<br/>                 8) Preventive/control measures : Adding vitamin C on fish food<br/>                 9) Laboratorium confirmation: sampels were detected with PCR by Laboratories of DGA Technical Implementing Unit<br/>                 10) Not published</p>                                                                                                                                                              |
| 2 | <p>1) -<br/>                 2) Species affected : Polkadot grouper(<i>Cromileptes altivelis</i>),(<i>Ephinephilus fuscoguttatus</i> ) and Snubnose pompano (<i>Trachinotus blochii</i>)<br/>                 3) Clinical sign : abnormally swim at surface, no response, irritation at part of body, finding the giant cell at kidney, no clinical sign on some samples;<br/>                 4) Pathogen : Grouper iridoviral disease; All amples have been analyzed by PCR<br/>                 5) Mortality rate : low to medium (20 to 50%);<br/>                 6) Economic loss : low to high;<br/>                 7) Names of infected areas : South Lampung District (Lampung), Pesawaran District (Lampung), Ambon District (Maluku)<br/>                 8) Preventive/controlmeasures :<br/>                 9) Laboratorium confirmation: sampels were detected with PCR by Laboratories of DGA Technical Implementing Unit<br/>                 10) Not published</p> |
| 3 | <p>1) Size of fish infected approximately 50 to 350 gr, larval stage; Disease occur at marine cage culture;<br/>                 2) Species affected : Polkadot grouper (<i>Cromileptis altivelis</i>), <i>Ephinephilus fuscoguttatus</i><br/>                 3) Clinical sign : abnormally swim at surface, no response, no specific change on some samples;<br/>                 4) Pathogen :Viral Nervous Necrosis Virus, All samples have been alanalyzed by PCR<br/>                 5) Mortality rate : 40 – 100 %<br/>                 6) Economic loss : low to high<br/>                 7) Names of infected areas : South Lampung District (Lampung), Pesawaran District (Lampung), Bireun District (Aceh), East Aceh District (Aceh)</p>                                                                                                                                                                                                                                |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>8) Preventive/controlmeasures :</p> <p>9) Laboratorium confirmation: sampels were detected with PCR by Laboratories of DGA Technical Implementing Unit</p> <p>10) Not published</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4 | <p>1) -</p> <p>2) Species affected : White shrimp (<i>Litopenaeus vanamei</i>)</p> <p>3) Clinical signs: mass mortality at the moulting shrimp</p> <p>4) Pathogen : Taura Syndrome Virus</p> <p>5) Economic loss : -</p> <p>6) Mortality rate : -</p> <p>7) Name of infected area: Situbondo District (East Java)</p> <p>8) Preventive/control measures: -</p> <p>9) Laboratorium confirmation: sampels were detected with PCR by Laboratories of DGA Technical Implementing Unit</p> <p>10) Not published</p>                                                                                                                                                                                                                          |
| 5 | <p>1) -</p> <p>11) Species affected: Tiger shrimp (<i>Penaeus monodon</i>), White shrimp (<i>Litopenaeus vanamei</i>)</p> <p>2) Clinical sign: White spot skin surface of shrimp head, shrimp becoming weak and swimming on the surface</p> <p>3) Pathogen : White Spot Syndrome Virus</p> <p>4) Mortality rate : -</p> <p>5) Economis loss : -</p> <p>6) Infected area: Takalar District (South Sulawesi), Sampang District (Madura), East Lampung District (Lampung), Bireusn District (Aceh), Tanah Laut District (South Kalimantan)</p> <p>7) Preventive/Control measurement : -</p> <p>8) Laboratorium confirmation: sampels were detected with PCR by Laboratories of DGA Technical Implementing Unit</p> <p>9) Not published</p> |
| 6 | <p>1) -</p> <p>2) Species affected : White shrimp (<i>Litopenaeus vannamei</i>)</p> <p>3) Clinical sign : Low growth (very small size/dwarf)</p> <p>4) Pathogen : Infectious Hypodermal and Haematophatic Necrosis Virus</p> <p>5) Mortality rate : low – high</p> <p>6) Economic loss : -</p> <p>7) Preventive / control measurement : -</p> <p>8) Name of infected area : Jepara District (Central Java), Rembang district (Central Java), Barru District (South Sulawesi)</p> <p>9) Laboratorium confirmation: sampels were detected with PCR by Laboratories of DGA Technical Implementing Unit</p> <p>10) Not published</p>                                                                                                        |
| 7 | <p>1) The sample were taken by CBAD Situbondo</p> <p>2) Species affected :White shrimp (<i>Litopenaeus vanamei</i>)</p> <p>3) Clinical sign : broken at shrimp meat with white sign, specially at abdomen and telson, result of positive have been detected by PCR method</p> <p>4) Pathogen : Infectious Myonecrosis Virus</p> <p>5) Mortality rate : -</p> <p>6) Economic loss : -</p> <p>7) Prevetive/ Controlmeasures taken : -</p> <p>8) Infected area : Situbondo District (East Java), East Lombok District (West Nusa Tenggara)</p> <p>9) Laboratorium confirmation: sampels were detected with PCR by Laboratories of DGA Technical Implementing Unit</p> <p>10) Not published</p>                                             |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **IR IRAN**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | -                            | -      | -         |                    |                                 |
| 3. Spring viraemia of carp                                           | -                            | -      | -         |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | -                            | -      | -         |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Red seabream iridoviral disease                                   | ***                          | ***    | ***       |                    |                                 |
| 7. Koi herpesvirus disease                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | ***                          | ***    | ***       |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | ***                          | ***    | ***       |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | ***                          | ***    | ***       |                    |                                 |
| 3. Abalone viral mortality                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | ***                          | ***    | ***       |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | ***                          | ***    | ***       |                    |                                 |
| 6. Akoya oyster disease                                              | ***                          | ***    | ***       |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 2. White spot disease                                                | -                            | -      | -         |                    |                                 |
| 3. Yellowhead disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | ***                          | ***    | ***       |                    |                                 |
| 8. White tail disease (MrNV)                                         | ***                          | ***    | ***       |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | ***                          | ***    | ***       |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | ***                          | ***    | ***       |                    |                                 |
| 11. Mourilyan disease                                                | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | ***                          | ***    | ***       |                    |                                 |
| 13. Milky lobster disease                                            | ***                          | ***    | ***       |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | ***                          | ***    | ***       |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|---|-----------------------------------------|-----|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="padding-right: 20px;">+</td> <td>Disease reported or known to be present</td> <td style="padding-right: 20px;">+()</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td style="padding-right: 20px;">+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="padding-right: 20px;">***</td> <td>No information available</td> </tr> <tr> <td style="padding-right: 20px;">?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td style="padding-right: 20px;">0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  | + | Disease reported or known to be present | +() | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Disease reported or known to be present                                           | +()    | Occurrence limited to certain zones          |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   | (year) | Year of last occurrence                      |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |  |
|-------------|--|
| 1           |  |
| 2           |  |
| 3           |  |
| 4           |  |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country:   JAPAN  Period:   July-September 2009  

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      | I                  |                                 |
| 2. Infectious haematopoietic necrosis                                | +                            | +      | +         | III                |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      | I                  |                                 |
| 4. Viral haemorrhagic septicaemia                                    | -                            | -      | -         | I                  |                                 |
| 5. Epizootic ulcerative syndrome                                     | -                            | +      | +         | II                 |                                 |
| 6. Red seabream iridoviral disease                                   | +                            | +      | +         | III                |                                 |
| 7. Koi herpesvirus disease                                           | +                            | +      | +         | III                |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | 0000                         | 0000   | 0000      | I                  |                                 |
| 9. Viral encephalopathy and retinopathy                              | +                            | -      | +         | III                |                                 |
| 10. Enteric septicaemia of catfish                                   | -                            | -      | +         | III                |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      | I                  |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | -                            | -      | -         | I                  |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      | I                  |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | +                            | +      | +         | II                 |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      | I                  |                                 |
| 6. Akoya oyster disease                                              | -                            | +      | +         | III                |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      | I                  |                                 |
| 2. White spot disease                                                | +                            | +      | +         | III                |                                 |
| 3. Yellowhead disease                                                | 0000                         | 0000   | 0000      | I                  |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | 0000                         | 0000   | 0000      | I                  |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | 0000                         | 0000   | 0000      | I                  |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      | I                  |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      | I                  |                                 |
| 8. White tail disease (MrNV)                                         | 0000                         | 0000   | 0000      | I                  |                                 |
| 9. Necrotising hepatopancreatitis                                    | 0000                         | 0000   | 0000      | I                  |                                 |
| 10. Hepatopancreatic parvo virus disease                             | 0000                         | 0000   | 0000      | I                  |                                 |
| 11. Mourilyan disease                                                | 0000                         | 0000   | 0000      | I                  |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | 0000                         | 0000   | 0000      | I                  |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000   | 0000      | I                  |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | -                            | -      | +         | III                |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | -                            | +?     | +?        | III                |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|--|--|--|--|---|-----------------------------------------|-----|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                     |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;"></td> <td style="width: 45%;"></td> <td style="width: 15%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td>+</td> <td>Disease reported or known to be present</td> <td>+()</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  |  |  |  |  | + | Disease reported or known to be present | +() | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Disease reported or known to be present                                           | +()    | Occurrence limited to certain zones          |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   | (year) | Year of last occurrence                      |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |  |
|-------------|--|
| 1           |  |
| 2           |  |
| 3           |  |
| 4           |  |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **LAO PDR**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | ***                          | ***    | ***       |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | ***                          | ***    | ***       |                    |                                 |
| 3. Spring viraemia of carp                                           | ***                          | ***    | ***       |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | ***                          | ***    | ***       |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | ***                          | ***    | ***       |                    |                                 |
| 6. Red seabream iridoviral disease                                   | ***                          | ***    | ***       |                    |                                 |
| 7. Koi herpesvirus disease                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | ***                          | ***    | ***       |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | ***                          | ***    | ***       |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | ***                          | ***    | ***       |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            |                              |        |           |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            |                              |        |           |                    |                                 |
| 3. Abalone viral mortality                                           |                              |        |           |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  |                              |        |           |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                |                              |        |           |                    |                                 |
| 6. Akoya oyster disease                                              |                              |        |           |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    |                              |        |           |                    |                                 |
| 2. White spot disease                                                |                              |        |           |                    |                                 |
| 3. Yellowhead disease                                                |                              |        |           |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) |                              |        |           |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 |                              |        |           |                    |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             |                              |        |           |                    |                                 |
| 7. Infectious myonecrosis                                            |                              |        |           |                    |                                 |
| 8. White tail disease (MrNV)                                         |                              |        |           |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    |                              |        |           |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             |                              |        |           |                    |                                 |
| 11. Mourilyan disease                                                |                              |        |           |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              |                              |        |           |                    |                                 |
| 13. Milky lobster disease                                            |                              |        |           |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | ***                          | ***    | ***       |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|---|-----------------------------------------|-----|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="padding-right: 20px;">+</td> <td>Disease reported or known to be present</td> <td style="padding-right: 20px;">+()</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td style="padding-right: 20px;">+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="padding-right: 20px;">***</td> <td>No information available</td> </tr> <tr> <td style="padding-right: 20px;">?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td style="padding-right: 20px;">0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  | + | Disease reported or known to be present | +() | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Disease reported or known to be present                                           | +()    | Occurrence limited to certain zones          |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   | (year) | Year of last occurrence                      |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |  |
|-------------|--|
| 1           |  |
| 2           |  |
| 3           |  |
| 4           |  |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **MALAYSIA**Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | (1986)                       | (1986) | (1986)    |                    |                                 |
| 6. Red seabream iridoviral disease                                   | +?                           | +?     | +?        |                    |                                 |
| 7. Koi herpesvirus disease                                           | +                            | +      | +         | I,II, III          | 1                               |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | -                            | +()    | -         | I,II,III           | 2                               |
| 9. Viral encephalopathy and retinopathy                              | -                            | +()    | -         | I,II,III           | 3                               |
| 10. Enteric septicaemia of catfish                                   | 0000                         | 0000   | 0000      |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | -                            | -      | -         |                    |                                 |
| 2. White spot disease                                                | -                            | +      | +         | I,III              | 4                               |
| 3. Yellowhead disease                                                | -                            | -      | -         | I,III              |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | +                            | -      | +         | I,III              | 5                               |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      |                    |                                 |
| 8. White tail disease (MrNV)                                         | -                            | -      | -         |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | 0000                         | 0000   | 0000      |                    |                                 |
| 11. Mourilyan disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | -                            | -      | -         | I, III             |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000   | 0000      |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   |          |                                                                         |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------|-------|---|--|--|------|-------------------------------------|---|-----------------------------------------|-----|--------------------------|----|-----------------------------------------------------------------------------------|------|----------------|---|-----------------------------------------------------------|----------|-------------------------------------------------------------------------|
| 1. Steptococcal infection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | +                                                                                 | +        | +                                                                       | I, II | 6 |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |          |                                                                         |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                              |                                                                                   |          |                                                                         |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| <p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;"></td> <td style="width: 45%;"></td> <td style="width: 15%; text-align: center;">+( )</td> <td style="width: 25%;">Occurrence limited to certain zones</td> </tr> <tr> <td>+</td> <td>Disease reported or known to be present</td> <td style="text-align: center;">***</td> <td>No information available</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="text-align: center;">0000</td> <td>Never reported</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td style="text-align: center;">- (year)</td> <td>Not reported (but disease is known to occur)<br/>Year of last occurrence</td> </tr> </table> |                                                                                   |          |                                                                         |       |   |  |  | +( ) | Occurrence limited to certain zones | + | Disease reported or known to be present | *** | No information available | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | 0000 | Never reported | ? | Suspected by reporting officer but presence not confirmed | - (year) | Not reported (but disease is known to occur)<br>Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                   | +( )     | Occurrence limited to certain zones                                     |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Disease reported or known to be present                                           | ***      | No information available                                                |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Serological evidence and/or isolation of causative agent but no clinical diseases | 0000     | Never reported                                                          |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Suspected by reporting officer but presence not confirmed                         | - (year) | Not reported (but disease is known to occur)<br>Year of last occurrence |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                   |          |                                                                         |       |   |  |  |      |                                     |   |                                         |     |                          |    |                                                                                   |      |                |   |                                                           |          |                                                                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | <p><b>Koi herpesvirus disease</b><br/> Two samples were detected positive during the routine export surveillance done by the Biosecurity Division, DOF Malaysia. Samples tested by PCR were randomly taken from exporter premises in Selangor and confirmed through sequencing procedure. As a precaution, the owner was informed to isolate the suspected broodstocks</p>                                                             |
| 2           | <p><b>Grouper iridoviral diseases</b><br/> GIV was detected in grouper produced at Government hatchery in Sabah. Positive detection was also observed from this batch of fish cultured in Sabah. No clinical signs observed in this fish except enlarged spleen and kidney and reports of slow growth. No other GIV cases reported or detected during this period besides active and passive surveillance done by the DOF Malaysia</p> |
| 3           | <p><b>Viral Nervous Necrosis (VNN)</b><br/> VNN was detected in 2 out of 24 samples monitored routinely for VNN from a government hatchery in Sabah. No other VNN cases reported or detected during this period besides active and passive surveillance done by the DOF Malaysia</p>                                                                                                                                                   |
| 4           | <p><b>White spot syndrome virus</b><br/> 1. Reported in 2 samples sent routinely to the lab Industrial Resources Laboratory (LIR) in August and September 2009. The samples were from Perak state. Samples were tested using IQ2000 WSSV Detection Kit, but no clinical signs or mortality observed.<br/><br/> 2.. No cases reported besides active surveillance on paenaied shrimp done by the Department of Fisheries, Malaysia</p>  |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | <p><b>IHHNV</b><br/>                 IHHNV was detected in 10 samples sent to the lab of LIR lab for routine test. Tested using IHHNV IQ2000 detection kit. No clinical signs or mortality observed. No other cases reported besides passive and active surveillance on paenaied shrimp done by the Department of Fisheries, Malaysia</p>                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 6 | <p><b>Streptococcal Infection in Tilapia</b></p> <p>Disease outbreaks and reports of mortality were gathered in 4 different states at Selangor and Terengganu in West Malaysia. Samples taken and examined by NaFisH, FRI, Batu Maung and UPM, Selangor</p> <ol style="list-style-type: none"> <li>1. Clinical signs-erratic, exophthalmia or other abnormal clinical signs of the eye, inflamed at ventral region</li> <li>2. pathogen-<i>Streptococcus agalactiae</i></li> <li>3/ Mortality rate- 40-50%</li> <li>4. Economic loss-more than RM 60,000/farm</li> <li>5. Geographic extent-in ponds at Selangor and most floating cages in Sg. Terengganu (river)</li> <li>6. Laboratory confirmation-API 20E STREP</li> <li>7. Publications-lab reports made to farms</li> </ol> |

**2. New aquatic animal health regulations introduced within past six months (with effective date): None**

Country: **MYANMAR**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | ***                          | ***    | ***       |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | ***                          | ***    | ***       |                    |                                 |
| 3. Spring viraemia of carp                                           | ***                          | ***    | ***       |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | ***                          | ***    | ***       |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     |                              |        |           |                    |                                 |
| 6. Red seabream iridoviral disease                                   | ***                          | ***    | ***       |                    |                                 |
| 7. Koi herpesvirus disease                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | ***                          | ***    | ***       |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | ***                          | ***    | ***       |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | ***                          | ***    | ***       |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            |                              |        |           |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            |                              |        |           |                    |                                 |
| 3. Abalone viral mortality                                           |                              |        |           |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  |                              |        |           |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                |                              |        |           |                    |                                 |
| 6. Akoya oyster disease                                              |                              |        |           |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | -                            | -      | +()       | III                | 1                               |
| 2. White spot disease                                                | +()                          | -      | +()       | III                | 2                               |
| 3. Yellowhead disease                                                | -                            | -      | -         | III                |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | ***                          | ***    | ***       |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | +()                          | -      | -         | III                | 3                               |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | ***                          | ***    | ***       |                    |                                 |
| 7. Infectious myonecrosis                                            | ***                          | ***    | ***       |                    |                                 |
| 8. White tail disease (MrNV)                                         | ***                          | ***    | ***       |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | ***                          | ***    | ***       |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | ***                          | ***    | ***       |                    |                                 |
| 11. Mourilyan disease                                                | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | ***                          | ***    | ***       |                    |                                 |
| 13. Milky lobster disease                                            | ***                          | ***    | ***       |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          |                              |        |           |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              |                              |        |           |                    |                                 |

| ANY OTHER DISEASES OF IMPORTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|---|-----------------------------------------|-----|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="padding-right: 20px;">+</td> <td>Disease reported or known to be present</td> <td style="padding-right: 20px;">+()</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td style="padding-right: 20px;">+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="padding-right: 20px;">***</td> <td>No information available</td> </tr> <tr> <td style="padding-right: 20px;">?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td style="padding-right: 20px;">0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  | + | Disease reported or known to be present | +() | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Disease reported or known to be present                                           | +()    | Occurrence limited to certain zones          |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   | (year) | Year of last occurrence                      |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

### 1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | A total of 31 samples of <i>P.monodon</i> have been tested at PCR lab of Department of Fisheries (DOF), of which 4 samples (12.9%) were recorded as TSV positive    |
| 2           | A total of 31 samples of <i>P.monodon</i> have been tested at PCR lab of Department of Fisheries (DOF), of which 5 samples (16.139%) were recorded as WSSV positive |
| 3           | A total of 31 samples of <i>P.monodon</i> have been tested at PCR lab of Department of Fisheries (DOF), of which 1 samples (3.23%) were recorded as IHNV positive   |

### 2. New aquatic animal health regulations introduced within past six months (with effective date): None

Country: **NEPAL**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | ***                          | ***    | ***       |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | ***                          | ***    | ***       |                    |                                 |
| 3. Spring viraemia of carp                                           | ***                          | ***    | ***       |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | ***                          | ***    | ***       |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | -                            | -      | -         |                    |                                 |
| 6. Red seabream iridoviral disease                                   | ***                          | ***    | ***       |                    |                                 |
| 7. Koi herpesvirus disease                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | ***                          | ***    | ***       |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | ***                          | ***    | ***       |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | ***                          | ***    | ***       |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 2. White spot disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Yellowhead disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      |                    |                                 |
| 8. White tail disease (MrNV)                                         | 0000                         | 0000   | 0000      |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | 0000                         | 0000   | 0000      |                    |                                 |
| 11. Mourilyan disease                                                | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | 0000                         | 0000   | 0000      |                    |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000   | 0000      |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|---|-----------------------------------------|------|-------------------------------------|--|----|-----------------------------------------------------------------------------------|-----|--------------------------|--|---|-----------------------------------------------------------|------|----------------|--|--|--|---|----------------------------------------------|--|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                 |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="width: 10%;"></td> <td style="width: 40%;">+</td> <td style="width: 40%;">Disease reported or known to be present</td> <td style="width: 10%;">+( )</td> <td style="width: 10%;">Occurrence limited to certain zones</td> </tr> <tr> <td></td> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td></td> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td></td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </table> |    |                                                                                   |        |                                              |  |  | + | Disease reported or known to be present | +( ) | Occurrence limited to certain zones |  | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available |  | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  |  | - | Not reported (but disease is known to occur) |  |  |  | (year) | Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +  | Disease reported or known to be present                                           | +( )   | Occurrence limited to certain zones          |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ?  | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                                                                   | (year) | Year of last occurrence                      |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |  |
|-------------|--|
| 1           |  |
| 2           |  |
| 3           |  |

**2. New aquatic animal health regulations introduced within past six months (with effective date): None**

Country: **PHILIPPINES**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      | III                | 1                               |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | -                            | -      | -         |                    |                                 |
| 6. Red seabream iridoviral disease                                   | ***                          | ***    | ***       |                    |                                 |
| 7. Koi herpesvirus disease                                           | 0000                         | 0000   | 0000      | III                | 2                               |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | -                            | -      | -         |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | -                            | -      | -         | III                | 3                               |
| 10. Enteric septicaemia of catfish                                   | ***                          | ***    | ***       |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Abalone viral mortality                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | ***                          | ***    | ***       |                    |                                 |
| 6. Akoya oyster disease                                              | ***                          | ***    | ***       |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      | III                | 4                               |
| 2. White spot disease                                                | -                            | +      | -         | III                | 5                               |
| 3. Yellowhead disease                                                | -                            | -      | -         | III                | 6                               |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | -                            | -      | -         |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | +                            | +      | +         | III                | 7                               |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      | III                | 8                               |
| 8. White tail disease (MrNV)                                         | ***                          | ***    | ***       |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | 0000                         | 0000   | 0000      | III                | 9                               |
| 10. Hepatopancreatic parvo virus disease                             | -                            | -      | -         |                    |                                 |
| 11. Mourilyan disease                                                | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | ***                          | ***    | ***       |                    |                                 |
| 13. Milky lobster disease                                            | ***                          | ***    | ***       |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | ***                          | ***    | ***       |                    |                                 |

| ANY OTHER DISEASES OF IMPORTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                      |          |                                                                         |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------|--|--|--|---|------|-------------------------------------|--|-----------------------------------------|-----|--------------------------|--|--------------------------------------------------------------------------------------|------|----------------|--|-------------------------------------------------------------|----------|-------------------------------------------------------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                      |          |                                                                         |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                      |          |                                                                         |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                |                                                                                      |          |                                                                         |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
| <p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="width: 10%;"></td> <td style="width: 40%;">+</td> <td style="width: 40%;">+( )</td> <td style="width: 10%;">Occurrence limited to certain zones</td> </tr> <tr> <td></td> <td>Disease reported or known to be present</td> <td>***</td> <td>No information available</td> </tr> <tr> <td></td> <td>+? Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td>? Suspected by reporting officer but presence not confirmed</td> <td>- (year)</td> <td>Not reported (but disease is known to occur)<br/>Year of last occurrence</td> </tr> </table> |                                                                                      |          |                                                                         |  |  |  | + | +( ) | Occurrence limited to certain zones |  | Disease reported or known to be present | *** | No information available |  | +? Serological evidence and/or isolation of causative agent but no clinical diseases | 0000 | Never reported |  | ? Suspected by reporting officer but presence not confirmed | - (year) | Not reported (but disease is known to occur)<br>Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | +                                                                                    | +( )     | Occurrence limited to certain zones                                     |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Disease reported or known to be present                                              | ***      | No information available                                                |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | +? Serological evidence and/or isolation of causative agent but no clinical diseases | 0000     | Never reported                                                          |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ? Suspected by reporting officer but presence not confirmed                          | - (year) | Not reported (but disease is known to occur)<br>Year of last occurrence |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                      |          |                                                                         |  |  |  |   |      |                                     |  |                                         |     |                          |  |                                                                                      |      |                |  |                                                             |          |                                                                         |

### 1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | One hundred and fifty-one (151) pieces of koi carp ( <i>Cyprinus carpio koi</i> ) with a weight range of 10-70 grams collected on December 2008 from a freshwater ornamental fish aquaculture park in Bay, Laguna were analyzed for SVCV. All one hundred and fifty-one (151) samples showed a negative result for Spring Viraemia of Carp through RT-PCR (nested-step), cell culture in FHM cells and bioassay test. Examinations/tests were conducted by the SEAFDEC Fish Health Laboratory.                             |
| 2           | A hundred and fifty-one (151) pieces of koi carp ( <i>Cyprinus carpio koi</i> ) with a weight range of 10-70 grams collected on December 2008 from a freshwater ornamental fish aquaculture park in Bay, Laguna were analyzed for KHV. All samples showed a negative result for Koi Herpesvirus through PCR (nested-step), cell culture in KF-1 cells and bioassay test. Examinations/tests were conducted by the SEAFDEC Fish Health Laboratory.                                                                          |
| 3           | All eight (8) samples of grouper ( <i>Epinephelus spp.</i> ) collected from Silot Bay in Liloan, Cebu showed a negative result for Viral Encephalopathy and Retinopathy using PCR test. Examinations/tests were conducted by the BFAR Central Office Fish Health Laboratory.                                                                                                                                                                                                                                               |
| 4           | Forty-eight (48) samples of <i>Peneaus vannamei</i> and one (1) sample of <i>Peneaus monodon</i> of different stages (post larval, broodstock and adult) were examined through PCR test and all showed a negative result for Taura Syndrome. The forty-nine (49) samples total were collected from Cebu, Vigan City, Zambales, Batangas, Bohol, Davao del Sur, Antipolo City, Masbate, Tacloban City, Tuguegarao City and Pangasinan. Examinations/tests were conducted by the BFAR Central Office Fish Health Laboratory. |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5 | <p>A total of ninety-two (92) samples (37 <i>Peneaus monodon</i>, 51 <i>Peneaus vannamei</i>, 2 <i>Macrobrachium rosenbergii</i> and 2 <i>Scylla serrata</i>) of different stages (post larval, broodstock and adult) were analyzed using PCR test. The different samples was collected from Cebu, Quezon Province, Vigan City, Bulacan, Batangas, Zambales, Butuan City, Surigao City, Surigao del Norte, Surigao del Sur, Bohol, Camarines Sur, Davao del Sur, Bataan, Antipolo City, Masbate, Sorsogon City, Naga City, Leyte, Tacloban City, Ormoc City, Tuguegarao City and Pangasinan. Seven (7) out of the ninety-two (92) collected samples showed a positive result for White Spot disease (1 <i>Macrobrachium rosenbergii</i> from Camarines Sur; 1 <i>Peneaus vannamei</i> from Cebu; 3 <i>Peneaus monodon</i> from Bataan; 1 <i>Peneaus monodon</i> from Surigao City; and 1 <i>Peneaus monodon</i> from Surigao del Sur). Examinations/tests were conducted by the BFAR Central Office Fish Health Laboratory.</p>                                                                                                                                                  |
| 6 | <p>All thirty-nine (39) samples (21 <i>Peneaus monodon</i> and 18 <i>Peneaus vannamei</i>) of different stages (post-larval, adult and broodstock) that were analyzed using PCR test showed a negative result for Yellowhead disease. The samples were collected from Quezon Province, Cebu, Bulacan, Batangas, Antipolo, Bohol, Masbate, Camarines Sur, Sorsogon City, Naga City, Leyte, Tacloban City, Ormoc City, Tuguegarao City and Pangasinan. Examinations/tests were conducted by the BFAR Central Office Fish Health Laboratory.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 7 | <p>Seventy-four (74) samples (27 <i>Peneaus monodon</i> and 47 <i>Peneaus vannamei</i>) of different stages (post larval, broodstock and adult) were analyzed using PCR test. The samples were collected from Cebu, Vigan City, Quezon Province, Bulacan, Batangas, Zambales, Butuan City, Surigao City, Surigao del Norte, Surigao del Sur, Bohol, Davao del Sur, Bataan, Antipolo City, Masbate, Camarines Sur, Sorsogon City, Leyte, Tacloban City, Ormoc City, Tuguegarao City, Pangasinan and Naga City. Twenty-five (25) out of the seventy-four (74) samples (5 <i>Peneaus vannamei</i> from Zambales; 1 <i>Peneaus monodon</i> from Butuan City; 1 <i>Peneaus monodon</i> from Surigao City; 2 <i>Peneaus monodon</i> from Surigao del Norte; 6 <i>Peneaus vannamei</i> from Batangas; 1 <i>Peneaus vannamei</i> from Masbate; 2 <i>Peneaus monodon</i> from Camarines Sur; 1 <i>Peneaus vannamei</i> from Tacloban City; and 5 <i>Peneaus vannamei</i> and 1 <i>Peneaus monodon</i> from Cebu) showed a positive result for Infectious Hypodermal and Haematopoietic Necrosis. Examinations/tests were conducted by the BFAR Central Office Fish Health Laboratory.</p> |
| 8 | <p>A total of forty-nine (49) samples (1 <i>Peneaus monodon</i> and 48 <i>Peneaus vannamei</i>) of different stages (post larval, broodstock and adult) collected from Cebu, Zambales, Vigan City, Batangas, Bohol, Davao del Sur, Antipolo City, Masbate, Tacloban City, Tuguegarao City and Pangasinan were analyzed through PCR test. All forty-nine (49) samples showed a negative result for Infectious Myonecrosis. Examinations/tests were conducted by the BFAR Central Office Fish Health Laboratory.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 9 | <p>All sixty-three (63) collected samples (46 <i>Peneaus vannamei</i> and 17 <i>Peneaus monodon</i>) of different stages (post larval, broodstock and adult) showed a negative result for Necrotising Hepatopancreatitis using PCR test. The samples were collected from Cebu, Batangas, Zambales, Bohol, Camarines Sur, Davao del Sur, Antipolo City, Masbate, Sorsogon City, Naga City, Leyte, Tacloban City, Ormoc City, Tuguegarao City and Pangasinan. Examinations/tests were conducted by the BFAR Central Office Fish Health Laboratory.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **SINGAPORE**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | Aug    | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Red seabream iridoviral disease                                   | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Koi herpesvirus disease                                           | (2007)                       | (2007) | (2007)    |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | -                            | -      | -         |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | -                            | -      | -         |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | 0000                         | 0000   | 0000      |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | ***                          | ***    | ***       |                    |                                 |
| 3. Abalone viral mortality                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | ***                          | ***    | ***       |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | ***                          | ***    | ***       |                    |                                 |
| 6. Akoya oyster disease                                              | ***                          | ***    | ***       |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | ***                          | ***    | ***       |                    |                                 |
| 2. White spot disease                                                | (2004)                       | (2004) | (2004)    |                    |                                 |
| 3. Yellowhead disease                                                | ***                          | ***    | ***       |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | -                            | -      | -         |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | ***                          | ***    | ***       |                    |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | ***                          | ***    | ***       |                    |                                 |
| 7. Infectious myonecrosis                                            | ***                          | ***    | ***       |                    |                                 |
| 8. White tail disease (MrNV)                                         | ***                          | ***    | ***       |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | ***                          | ***    | ***       |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | ***                          | ***    | ***       |                    |                                 |
| 11. Mourilyan disease                                                | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | ***                          | ***    | ***       |                    |                                 |
| 13. Milky lobster disease                                            | ***                          | ***    | ***       |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | ***                          | ***    | ***       |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|--|--|--|--|---|-----------------------------------------|-----|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1. Mullet systemic iridoviral disease                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (2008)                                                                            | (2008) | (2008)                                       |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                     |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;"></td> <td style="width: 15%;"></td> <td style="width: 25%;"></td> </tr> <tr> <td>+</td> <td>Disease reported or known to be present</td> <td>+()</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  |  |  |  |  | + | Disease reported or known to be present | +() | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Disease reported or known to be present                                           | +()    | Occurrence limited to certain zones          |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                   | (year) | Year of last occurrence                      |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                   |        |                                              |  |  |  |  |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |  |
|-------------|--|
| 1           |  |
| 2           |  |
| 3           |  |
| 4           |  |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **SRI LANKA**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | ***                          | ***    | ***       |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | ***                          | ***    | ***       |                    |                                 |
| 3. Spring viraemia of carp                                           | ?                            | ?      | ?         |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | -                            | -      | -         |                    |                                 |
| 6. Red seabream iridoviral disease                                   | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Koi herpesvirus disease                                           | ?                            | ?      | ?         |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | ***                          | ***    | ***       |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | ***                          | ***    | ***       |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | ***                          | ***    | ***       |                    |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | ***                          | ***    | ***       |                    |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | ***                          | ***    | ***       |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | ***                          | ***    | ***       |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 2. White spot disease                                                | +                            | +      | +         | III                | 1                               |
| 3. Yellowhead disease                                                | ***                          | ***    | ***       | III                | 4                               |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | +                            | +      | +         | I and III          | 2                               |
| 5. Infectious hypodermal and haematopoietic necrosis                 | ?                            | ?      | ?         | III                | 3                               |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | ***                          | ***    | ***       |                    |                                 |
| 7. Infectious myonecrosis                                            | ***                          | ***    | ***       |                    |                                 |
| 8. White tail disease (MrNV)                                         | ***                          | ***    | ***       |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    | ***                          | ***    | ***       |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | ***                          | ***    | ***       |                    |                                 |
| 11. Mourilyan disease                                                | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | ***                          | ***    | ***       |                    |                                 |
| 13. Milky lobster disease                                            | ***                          | ***    | ***       |                    |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | ***                          | ***    | ***       |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | ***                          | ***    | ***       |                    |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                   |        |                                              |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|
| 1. Some <i>P.monodon</i> brood stock collected from wild were shown to be infected with an unknown disease, which cause mortality within 2-3 days after collection. Shows reddening of the body and gill lesions. The disease is yet to be identified                                                                                                                                                                                                                                                |                                                                                   |        |                                              |  |  |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                   |        |                                              |  |  |
| <b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br><b>LISTED BY THE OIE</b><br><b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis ( <i>Gyrodactylus salaris</i> ).<br><b>Molluscs:</b> Infection with <i>Bonamia ostreae</i> ; <i>Marteilia refringens</i> ; <i>Perkinsus marinus</i> ; <i>Xenohaliotis californiensis</i> .<br><b>Crustaceans:</b> Crayfish plague ( <i>Aphanomyces astaci</i> ).<br><b>NOT LISTED BY THE OIE</b><br><b>Finfish:</b> Channel catfish virus disease |                                                                                   |        |                                              |  |  |
| <b>a/ Please use the following symbols:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                   |        |                                              |  |  |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Disease reported or known to be present                                           | +( )   | Occurrence limited to certain zones          |  |  |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   | (year) | Year of last occurrence                      |  |  |
| <b>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</b>                                                                                                                                                                                                                                                                                                                                 |                                                                                   |        |                                              |  |  |

**1. Epidemiological comments:**

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | <p>A total of 275 wild <i>P.monodon</i> brooder samples examined using IQ 2000 2-step nested PCR test at the laboratory of shrimp farm extension and monitoring unit of NARA under active surveillance. 15 samples were positive for WSSV indicating 5.5% prevalence during this period</p> <p>A total of 150 postlarvae of <i>P.monodon</i> were screened using the same method and 10 samples were positive indicating a prevalence of 6.7%. However, WSSV outbreaks were reported from most of the zones in the north Western province started from Puttlam down to Chilaw. The dying shrimps were mostly 1-2 months old and probably transmitted via infected brooders. The total infected area is approximately 20-25% of the farmed area</p> |
| 2           | <p>A total of 450 postlarvae (<i>P.monodon</i>) samples were examined using malachite green staining method and 95 (21.1%) postlarvae were positive for MBV during this period. The prevalence of MBV remained relatively high as with the second quarter. Some of the samples tested with both the wet mount assay and PCR (using OIE promoters MBV 1.4F/R and MBV 1.4 NF/NR indicated that there is a strain variation occurring with regard to MBV in Sri Lanka. It is important to further study whether these OIE primers are suitable to detect MBV in Sri Lanka</p>                                                                                                                                                                         |
| 3           | <p>A total of 56 postlarvae samples of <i>P.monodon</i> were tested for IHNV using 2-step nested PCR and 12 samples were positive for IHNV. But these primers were not capable of differentiating the actual infectious strain of IHNV</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4           | <p>A total of 50 postlarvae samples of <i>P.monodon</i> were tested for yellow-head virus (YHV) using 2-step nested PCR (IQ2000) and none were positive with this test</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

**2. New aquatic animal health regulations introduced within past six months (with effective date):**

Country: **THAILAND**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      | III                |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      | III                |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      | III                |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      | III                |                                 |
| 5. Epizootic ulcerative syndrome                                     | -                            | -      | -         | II                 |                                 |
| 6. Red seabream iridoviral disease                                   | 0000                         | 0000   | 0000      | III                |                                 |
| 7. Koi herpesvirus disease                                           | -                            | -      | -         | III                |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | -                            | -      | -         | III                |                                 |
| 9. Viral encephalopathy and retinopathy                              | -                            | -      | -         | III                |                                 |
| 10. Enteric septicaemia of catfish                                   | 0000                         | 0000   | 0000      | II                 |                                 |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      | II                 |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      | II                 |                                 |
| 3. Abalone viral mortality                                           | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | ***                          | ***    | ***       |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | ***                          | ***    | ***       |                    |                                 |
| 6. Akoya oyster disease                                              | ***                          | ***    | ***       |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | +                            | +      | +         | III                | 1                               |
| 2. White spot disease                                                | -                            | +      | +         | III                | 2                               |
| 3. Yellowhead disease                                                | +                            | +      | +         | III                | 3                               |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | ***                          | ***    | ***       |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | +                            | +      | +         | III                | 4                               |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | ***                          | ***    | ***       |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      | I                  |                                 |
| 8. White tail disease (MrNV)                                         | +                            | +      | +         | III                | 5                               |
| 9. Necrotising hepatopancreatitis                                    | ***                          | ***    | ***       |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             | ***                          | ***    | ***       |                    |                                 |
| 11. Mourilyan disease                                                | ***                          | ***    | ***       |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | ***                          | ***    | ***       |                    |                                 |
| 13. Milky lobster disease                                            | 0000                         | 0000   | 0000      | I                  |                                 |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | (2007)                       | (2007) | (2007)    | III                |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      | II                 |                                 |

| <b>ANY OTHER DISEASES OF IMPORTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|---|-----------------------------------------|------|-------------------------------------|--|----|-----------------------------------------------------------------------------------|-----|--------------------------|--|---|-----------------------------------------------------------|------|----------------|--|--|--|---|----------------------------------------------|--|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                 |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="width: 10%;"></td> <td style="width: 40%;">+</td> <td style="width: 40%;">Disease reported or known to be present</td> <td style="width: 10%;">+( )</td> <td style="width: 10%;">Occurrence limited to certain zones</td> </tr> <tr> <td></td> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td></td> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td></td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </table> |    |                                                                                   |        |                                              |  |  | + | Disease reported or known to be present | +( ) | Occurrence limited to certain zones |  | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available |  | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  |  | - | Not reported (but disease is known to occur) |  |  |  | (year) | Year of last occurrence |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +  | Disease reported or known to be present                                           | +( )   | Occurrence limited to certain zones          |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ?  | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                                                                                   | (year) | Year of last occurrence                      |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |                                                                                   |        |                                              |  |  |   |                                         |      |                                     |  |    |                                                                                   |     |                          |  |   |                                                           |      |                |  |  |  |   |                                              |  |  |  |        |                         |

### 1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | A total of 915 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 13 specimens or 1.4 % recorded as RT-PCR positive or carrying TSV genes. Shrimp farms with positive testing results will subject to health improvement, movement control, eradication and/or farm dis-infection.                                                                                                                                                                                                                                |
| 2           | A total of 915 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 6 specimens or 0.66 % recorded as PCR positive or carrying WSSV genes. Shrimp farms with positive testing results will subject to health improvement, movement control, eradication and/or farm dis-infection.                                                                                                                                                                                                                                  |
| 3           | A total of 918 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 13 specimens or 1.4 % recorded as RT-PCR positive or carrying YHV genes. Shrimp farms with positive testing results will subject to health improvement, movement control, eradication and/or farm dis-infection.                                                                                                                                                                                                                                |
| 4           | A total of 706 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 23 specimens or 3.3 % recorded as PCR positive or carrying IHNV genes. Shrimp farms with positive testing results will subject to health improvement, movement control, eradication and/or farm dis-infection.                                                                                                                                                                                                                                  |
| 5           | 140 healthy giant prawn specimens from wild stock and hatchery brooders were sampled under the MrNV surveillance program using RT-PCR technique. 9 specimens or 6.4 % recorded as PCR positive or carrying MrNV gene. However all brooder specimens appeared normal. 12 giant prawn post larvae specimens from hatcheries were sampled and tested for MrNV under target surveillance. 8 post larvae specimens or 67 % recorded as PCR positive and were then destroyed. Concepts in bio-security for disease prevention had been advised to hatchery owners or operators. |

### 2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: **VIETNAM**

 Period: **July-September 2009**

| Item                                                                 | Disease status <sup>a/</sup> |        |           | Level of diagnosis | Epidemiological comment numbers |
|----------------------------------------------------------------------|------------------------------|--------|-----------|--------------------|---------------------------------|
|                                                                      | Month                        |        |           |                    |                                 |
| DISEASES PREVALENT IN THE REGION                                     | July                         | August | September |                    |                                 |
| <b>FINFISH DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Epizootic haematopoietic necrosis                                 | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infectious haematopoietic necrosis                                | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Spring viraemia of carp                                           | 0000                         | 0000   | 0000      |                    |                                 |
| 4. Viral haemorrhagic septicaemia                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Epizootic ulcerative syndrome                                     | ?                            | ?      | ?         |                    |                                 |
| 6. Red seabream iridoviral disease                                   | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Koi herpesvirus disease                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 8. Grouper iridoviral disease                                        | 0000                         | 0000   | 0000      |                    |                                 |
| 9. Viral encephalopathy and retinopathy                              | 0000                         | 0000   | 0000      |                    |                                 |
| 10. Enteric septicaemia of catfish                                   | +                            | +      | +         | I, II              | 1                               |
| <b>MOLLUSC DISEASES</b>                                              |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with <i>Bonamia exitiosa</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Perkinsus olseni</i>                            | 0000                         | 0000   | 0000      |                    |                                 |
| 3. Abalone viral mortality                                           | 0000                         | 0000   | 0000      |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 4. Infection with <i>Marteilioides chungmuensis</i>                  | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Acute viral necrosis (in scallops)                                | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Akoya oyster disease                                              | 0000                         | 0000   | 0000      |                    |                                 |
| <b>CRUSTACEAN DISEASES</b>                                           |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Taura syndrome                                                    | 0000                         | 0000   | 0000      |                    |                                 |
| 2. White spot disease                                                | +                            | +      | +         | I, II, III         | 2                               |
| 3. Yellowhead disease                                                | ***                          | ***    | ***       |                    |                                 |
| 4. Spherical baculovirus ( <i>Penaeus monodon</i> -type baculovirus) | 0000                         | 0000   | 0000      |                    |                                 |
| 5. Infectious hypodermal and haematopoietic necrosis                 | 0000                         | 0000   | 0000      |                    |                                 |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )             | 0000                         | 0000   | 0000      |                    |                                 |
| 7. Infectious myonecrosis                                            | 0000                         | 0000   | 0000      |                    |                                 |
| 8. White tail disease (MrNV)                                         | ***                          | ***    | ***       |                    |                                 |
| 9. Necrotising hepatopancreatitis                                    |                              |        |           |                    |                                 |
| 10. Hepatopancreatic parvo virus disease                             |                              |        |           |                    |                                 |
| 11. Mourilyan disease                                                |                              |        |           |                    |                                 |
| <b>Non OIE-listed diseases</b>                                       |                              |        |           |                    |                                 |
| 12. <i>Monodon</i> slow growth syndrome                              | +                            | +      | +         | I, III             | 3                               |
| 13. Milky lobster disease                                            | +                            | +      | +         | I                  | 4                               |
| <b>AMPHIBIAN DISEASES</b>                                            |                              |        |           |                    |                                 |
| <b>OIE-listed diseases</b>                                           |                              |        |           |                    |                                 |
| 1. Infection with Ranavirus                                          | 0000                         | 0000   | 0000      |                    |                                 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>              | 0000                         | 0000   | 0000      |                    |                                 |

| ANY OTHER DISEASES OF IMPORTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|--|--|---|-----------------------------------------|-----|-------------------------------------|----|-----------------------------------------------------------------------------------|-----|--------------------------|---|-----------------------------------------------------------|------|----------------|--|--|---|----------------------------------------------|--|--|--------|-------------------------|
| 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p><b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</sup></b><br/> <b>LISTED BY THE OIE</b><br/> <b>Finfish:</b> Infectious salmon anaemia; Gyrodactylosis (<i>Gyrodactylus salaris</i>).<br/> <b>Molluscs:</b> Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>; <i>Xenohaliotis californiensis</i>.<br/> <b>Crustaceans:</b> Crayfish plague (<i>Aphanomyces astaci</i>).<br/> <b>NOT LISTED BY THE OIE</b><br/> <b>Finfish:</b> Channel catfish virus disease</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="padding-right: 20px;">+</td> <td style="padding-right: 20px;">Disease reported or known to be present</td> <td style="padding-right: 20px;">+()</td> <td>Occurrence limited to certain zones</td> </tr> <tr> <td style="padding-right: 20px;">+?</td> <td style="padding-right: 20px;">Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="padding-right: 20px;">***</td> <td>No information available</td> </tr> <tr> <td style="padding-right: 20px;">?</td> <td style="padding-right: 20px;">Suspected by reporting officer but presence not confirmed</td> <td style="padding-right: 20px;">0000</td> <td>Never reported</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td></td> <td></td> <td style="padding-right: 20px;">(year)</td> <td>Year of last occurrence</td> </tr> </table> |                                                                                   |        |                                              |  |  | + | Disease reported or known to be present | +() | Occurrence limited to certain zones | +? | Serological evidence and/or isolation of causative agent but no clinical diseases | *** | No information available | ? | Suspected by reporting officer but presence not confirmed | 0000 | Never reported |  |  | - | Not reported (but disease is known to occur) |  |  | (year) | Year of last occurrence |
| +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Disease reported or known to be present                                           | +()    | Occurrence limited to certain zones          |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| +?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Serological evidence and/or isolation of causative agent but no clinical diseases | ***    | No information available                     |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Suspected by reporting officer but presence not confirmed                         | 0000   | Never reported                               |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                   | -      | Not reported (but disease is known to occur) |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                   | (year) | Year of last occurrence                      |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |
| <p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                   |        |                                              |  |  |   |                                         |     |                                     |    |                                                                                   |     |                          |   |                                                           |      |                |  |  |   |                                              |  |  |        |                         |

### 1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

| Comment No. |                                                                                                                                                                                                                                                                                                                                                               |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | <p>Pathogen: <i>Edwardsiella ictaluri</i><br/>                     Infection found in intensive catfish (<i>Pangasius micronema</i>, <i>P. hypophthalmus</i>) farms<br/>                     This disease occurred in Tien Giang, Dong Thap and Ben Tre provinces</p>                                                                                         |
| 2           | <p>Pathogen: White Spot Syndrome Virus (WSSV)<br/>                     Disease found in black tiger shrimp (<i>Penaeus monodon</i>) and white leg shrimp (<i>P. vannamei</i>)<br/>                     The disease occurred in Nghe An, Quang Tri, Dong Nai, Phu Yen, Ba Ria-Vung Tau, Soc Trang, Tien Giang, Kien Giang, Tra Vinh and Bac Lieu provinces</p> |
| 3           | <p>Pathogen: Baculovirus<br/>                     Infection found in black tiger shrimp (<i>Penaeus monodon</i>)<br/>                     Disease characteristic: body color darken, loss appetite, stunted<br/>                     The disease was reported in Dong Nai and Ba Ria-Vung Tau provinces</p>                                                   |
| 4           | <p>Pathogen: Rickettsia – like Bacteria<br/>                     Infection found in Lobsters <i>Panulirus ornatus</i>, <i>P. homarus</i> cultured in floating cages on the sea in the growth-out stage<br/>                     Disease characteristic: Diseased lobsters showed black gill, uncovered head, and milky colored abdomen traces</p>             |

### 2. New aquatic animal health regulations introduced within past six months (with effective date):

## List of Diseases in the Asia-Pacific Quarterly Aquatic Animal Disease Report (Beginning 2009)

| 1. DISEASES PREVALENT IN THE REGION                                 |                                                     |
|---------------------------------------------------------------------|-----------------------------------------------------|
| <b>1.1 FINFISH DISEASES</b>                                         |                                                     |
| <b>OIE-listed diseases</b>                                          | <b>Non OIE-listed diseases</b>                      |
| 1. Epizootic haematopoietic necrosis                                | 1. Grouper iridoviral disease                       |
| 2. Infectious haematopoietic necrosis                               | 2. Viral encephalopathy and retinopathy             |
| 3. Spring viraemia of carp                                          | 3. Enteric septicaemia of catfish                   |
| 4. Viral haemorrhagic septicaemia                                   |                                                     |
| 5. Epizootic ulcerative syndrome                                    |                                                     |
| 6. Red seabream iridoviral disease                                  |                                                     |
| 7. Infection with koi herpesvirus                                   |                                                     |
| <b>1.2 MOLLUSC DISEASES</b>                                         |                                                     |
| <b>OIE-listed diseases</b>                                          | <b>Non OIE-listed diseases</b>                      |
| 1. Infection with <i>Bonamia exitiosa</i>                           | 1. Infection with <i>Marteilioides chungmuensis</i> |
| 2. Infection with <i>Perkinsus olseni</i>                           | 2. Akoya oyster disease                             |
| 3. Abalone viral mortality                                          | 3. Acute viral necrosis (in scallops)               |
| <b>1.3 CRUSTACEAN DISEASES</b>                                      |                                                     |
| <b>OIE-listed diseases</b>                                          | <b>Non OIE-listed diseases</b>                      |
| 1. Taura syndrome                                                   | 1. Monodon slow growth syndrome                     |
| 2. White spot disease                                               | 2. Milky lobster syndrome                           |
| 3. Yellowhead disease                                               |                                                     |
| 4. Spherical baculovirus ( <i>Penaes monodon</i> -type baculovirus) |                                                     |
| 5. Infectious hypodermal and haematopoietic necrosis                |                                                     |
| 6. Tetrahedral baculovirus ( <i>Baculovirus penaei</i> )            |                                                     |
| 7. Infectious myonecrosis                                           |                                                     |
| 8. White tail disease (MrNV)                                        |                                                     |
| 9. Necrotising hepatopancreatitis                                   |                                                     |
| 10. Hepatopancreatic parvo virus disease                            |                                                     |
| 11. Mourilyan virus disease                                         |                                                     |
| <b>1.4 AMPHIBIAN DISEASES</b>                                       |                                                     |
| <b>OIE-listed diseases</b>                                          | <b>Non OIE-listed diseases</b>                      |
| 1. Infection with Ranavirus                                         |                                                     |
| 2. Infection with <i>Bachtracochytrium dendrobatidis</i>            |                                                     |
| 2. DISEASES PRESUMED EXOTIC TO THE REGION                           |                                                     |
| <b>2.1 Finfish</b>                                                  |                                                     |
| <b>OIE-listed diseases</b>                                          | <b>Non OIE-listed diseases</b>                      |
| 1. Infectious salmon anaemia                                        | 1. Channel catfish virus disease                    |
| 2. Gyrodactylosis ( <i>Gyrodactylus salaris</i> )                   |                                                     |
| <b>2.2 Molluscs</b>                                                 |                                                     |
| <b>OIE-listed diseases</b>                                          | <b>Non OIE-listed diseases</b>                      |
| 1. Infection with <i>Bonamia ostreae</i>                            |                                                     |
| 2. Infection with <i>Marteilia refringens</i>                       |                                                     |
| 3. Infection with <i>Perkinsus marinus</i>                          |                                                     |
| 4. Infection with <i>Xenohalotis californiensis</i>                 |                                                     |
| <b>2.3 Crustaceans</b>                                              |                                                     |
| <b>OIE-listed diseases</b>                                          | <b>Non OIE-listed diseases</b>                      |
| 1. Crayfish plague ( <i>Aphanomyces astaci</i> )                    |                                                     |

## Recent Aquatic Animal Health Related Publications

**OIE Aquatic Animal Health Code, 11<sup>th</sup> Edition, 2008 and OIE Manual of Diagnostic Tests for Aquatic Animals, 5<sup>th</sup> Edition, 2006** [http://www.oie.int/eng/publicat/en\\_aqua.htm](http://www.oie.int/eng/publicat/en_aqua.htm). The aim of the aquatic animal health code is to assure the sanitary safety of international trade in aquatic animals and their products. This is achieved through the detailing of health measures to be used by the competent authorities of importing and exporting countries to avoid the transfer of agents pathogenic for animals or humans, while avoiding unjustified sanitary barriers. The health measures in the aquatic animal health code (in the form of standards, guidelines and recommendations) have been formally adopted by the OIE international committee, the general assembly of all delegates of OIE Member Countries. The Aquatic Animal Health Code is available on [http://www.oie.int/eng/normes/fcode/A\\_00003.htm](http://www.oie.int/eng/normes/fcode/A_00003.htm). The book may be ordered from [pub.sales@oie.int](mailto:pub.sales@oie.int)

Bondad-Reantaso, M.G., Arthur, J.R. and Subasinghe, R.P. (eds.). 2008. **Understanding and applying risk analysis in aquaculture**. *FAO Fisheries and Aquaculture Technical Paper. No. 519*. Rome, FAO. 2008. 304p. Risk analysis is an objective, systematic, standardized and defensible method of assessing the likelihood of negative consequences occurring due to a proposed action or activity and the likely magnitude of those consequences, or, simply put, it is “science-based decision-making”

FAO. Report of **FAO Workshop on Information Requirements for Maintaining Aquatic Animal Biosecurity**. Cebu City, Philippines, 15–17 February 2007. *FAO Fisheries and Aquaculture Report. No. 877*. Rome, FAO. 2008. 27p.

FAO Regional Commission for Fisheries. **Report of the Regional Technical Workshop on Aquatic Animal Health**. Jeddah. Kingdom of Saudi Arabia, 6-10 April 2008. *FAO Fisheries and Aquaculture Report. No. 831*. Rome, FAO. 2008. 120 pp.

FAO. 2009. **Report of the International Emergency Disease Investigation Task Force on a Serious Finfish Disease in Southern Africa, 18-26 May 2007**. Rome, FAO. 2009.

Arthur, J.R., Bondad-Reantaso, M.G. and Subasinghe, R.P. 2008. **Procedures for the quarantine of live aquatic animals: a manual**. *FAO Fisheries Technical Paper No. 502*. Rome, FAO. 2008. 74p.

Bondad-Reantaso, M.G., Mohan, C.V., Crumlish, M. and Subasinghe, R.P. (eds.) 2008. **Proceedings of the Sixth Symposium on Diseases in Asian Aquaculture (DAA VI)**. 25-28 October 2005, Colombo, Sri Lanka. Fish Health Section. 505 pp.

Bernoth, E.-M. (Coordinator). 2008. **Changing Trends in Managing Aquatic Animal Disease Emergencies**. OIE Scientific and Technical Review, Volume 27(1), April 2008. 281p.

Bondad-Reantaso, M.G., McGladdery, S.E. and Berthe, F.C.J. 2007. **Pearl oyster health management: a manual**. *FAO Fisheries Technical Paper. No. 503*. Rome, FAO. 2007. 120p.

Kirjusina, M. and Vismanis, K. 2007. **Checklist of the parasites of fishes of Latvia**. *FAO Fisheries Technical Paper. 369/3*. Rome, FAO. 113p.

Dodet, B., the OIE Scientific and Technical Department (eds.). **The OIE Global Conference on Aquatic Animal Health**. *Dev Biol (Basel)*, Basel, Karger, Volume 29. 193p.

**Aquatic Animal Diseases Significant to Asia-Pacific: Identification Field Guide**: NACA and the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) have recently produced this field guide to support aquatic animal health surveillance, early response and reporting in the region. The field guide drew extensively from the experiences and previous and ongoing research activities in health management in Australia and other countries in Asia and thus joins the growing body of practical knowledge published for Asia-Pacific aquaculture and fisheries. The regional field guide covers all diseases listed in the Quarterly Aquatic Animal Disease (QAAD) reporting system, which includes all OIE listed diseases plus diseases of regional concern. The

field guide is available for free download at <http://www.enaca.org/modules/news/article.php?storyid=1003>

FAO. 2007. Aquaculture development 2. **Health management for the responsible movement of live aquatic animals**. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 2. Rome, FAO. 2007. 31p. Further information: [Rohana.Subasinghe@fao.org](mailto:Rohana.Subasinghe@fao.org)

**Color Atlas of Fish Histopathology**, Volume 2 (2007) by Teruo Miyazaki. The only book on fish histopathology. Highly recommended for private library, institutional libraries, laboratories for studies and education on fish disease. The volume contains 13 RNA viruses, 16 DNA viruses, 7 fungal diseases and 50 parasitic diseases. Downloadable at URL <http://briefcase.yahoo.co.jp/yappon1978>. Further details from [miyazaki@bio.mie-u.ac.jp](mailto:miyazaki@bio.mie-u.ac.jp)

Arthur, J.R. & Te, B.Q. 2006. **Checklist of the parasites of fishes of Viet Nam**. FAO Fisheries Technical Paper No. 369/2. Rome, FAO. 133 pp.

**Aquaculture Biosecurity: Prevention, Control and Eradication of Aquatic Animal Disease**. 2006. A. David Scarfe, Cheng-Sheng Lee and Patricia O'Bryen (editors). Blackwell Publishing. 182 pp.

**Regional Workshop on Preparedness and Response to Aquatic Animal Health Emergencies in Asia**, Jakarta, Indonesia, 21-23 September 2004. Subasinghe, R.P. and JR Arthur (editors). FAO Fisheries Proceedings No. 4, Rome, FAO. 2005. 178p.

**Responsible use of antibiotics in aquaculture**. Hernandez Serrano, P. 2005. FAO Fisheries Technical Paper. No. 469. Rome, FAO. 2005. 97p.

**Pathogen and ecological risk analysis for the introduction of blue shrimp, *Litopenaeus stylirostris*, from Brunei Darussalam to Fiji**. Bondad-Reantaso, M.G., Lovell, E.R., Arthur, J.R., Hurwood, D. & Mather, P.B. 2005. Secretariat of the Pacific Community, New Caledonia. 80 pp.  
[http://www.spc.org.nc/aquaculture/site/publications/documents/Stylirostris\\_BruneiFiji.pdf](http://www.spc.org.nc/aquaculture/site/publications/documents/Stylirostris_BruneiFiji.pdf)

**Pathogen and ecological risk analysis for the introduction of giant river prawn, *Macrobrachium rosenbergii* from Fiji to the Cooks Islands**. Arthur, J.R., Hurwood, D., Lovell, E.R., Bondad-Reantaso, M.G., & Mather, P.B. 2005. Secretariat of the Pacific Community, New Caledonia.  
<http://www.biosecurity.govt.nz/files/pests-diseases/plants/risk/prawns-ra.pdf>

**A Colour Atlas of Diseases of Yellowtail (Seriola) Fish**: Written by Dr. Mark Sheppard, Canadian veterinarian, a new publication (in Japanese and originally in English) "A Colour Atlas of Diseases of Yellowtail (Seriola) Fish" is now available. A useful diagnostic field guide for fish farmers, fish health professionals, laboratory technicians and students, this book contains 30 pages of high resolution, detailed pathology photomicrographs of most commonly found diseases of yellowtail. More details can be found at [http://oberon.ark.com/~svs/index\\_files/svsindexfile5.html](http://oberon.ark.com/~svs/index_files/svsindexfile5.html)

**Histological Techniques for Marine Bivalve Molluscs and Crustaceans**: A new publication by DW Howard, EJ Lewis, BJ Keller and CS Smith of the Cooperative Oxford Laboratory, Center for Coastal Environmental Health and Biomolecular Research, National Centers for Coastal Ocean Science, National Ocean Service, NOAA. This is an invaluable guide to histological techniques of shellfish, principally molluscs and crustaceans which every aquatic animal health researcher should have. Those interested to receive copies, please write to the Librarian, Ms Susie Hines at [Susie.Hines@noaa.gov](mailto:Susie.Hines@noaa.gov)

#### **Surveillance and Zoning for Aquatic Animal Diseases.**

Subasinghe, R.P., McGladdery, S.E. and Hill, B.J. (eds.). FAO Fisheries Technical Paper. No. 451. Rome, FAO. 2004. 73p. This document contains the recommendations and conclusions of an Expert Consultation on Surveillance and Zoning for Aquatic Animal Diseases' jointly organized by FAO, the Federal Department of Fisheries and Oceans Canada (DFO-Canada) and OIE held in October 2002 at the FAO Headquarters in Rome, Italy. The objective of the consultation was to determine what surveillance options can best support scientifically valid zonation frameworks. Contact: [Rohana.Subasinghe@fao.org](mailto:Rohana.Subasinghe@fao.org)

## List of National Coordinators\*

| Country                    | Name and Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Australia</b>           | <p>Dr. Ingo Ernst<br/>                     Aquatic Animal Health Unit<br/>                     Office of the Chief Veterinary Officer<br/>                     Department of Agriculture, Fisheries and Forestry<br/>                     GPO Box 858, Canberra ACT 2601, Australia<br/>                     Fax: 61-2-6272 3150; Tel: 61-2-6272 4328<br/>                     Email: <a href="mailto:ingo.ernst@daff.gov.au">ingo.ernst@daff.gov.au</a></p> <p>Mr. Alistair Herfort<br/>                     Aquatic Animal Health Unit ,<br/>                     Office of the Chief Veterinary Officer<br/>                     Department of Agriculture, Fisheries and Forestry<br/>                     GPO Box 858, Canberra ACT 2601, Australia<br/>                     Fax: +61 2 6272 3150; tel: +61 2 6272 4009<br/>                     E-mail: <a href="mailto:Alistair.Herfort@affa.gov.au">Alistair.Herfort@affa.gov.au</a></p> |
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| <b>Cambodia</b>            | <p>Dr So Nam<br/>                     Deputy Director<br/>                     Inland Fisheries Research and Development Institute (IFReDI)<br/>                     186, Norodom Blvd, Phnom Penh, Cambodia<br/>                     Telephone +855 23 220 417<br/>                     Fax. +855 23 220 417<br/>                     E-mail: <a href="mailto:sonammekong2001@yahoo.com">sonammekong2001@yahoo.com</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>China</b>               | <p>Mr Zhuzewen<br/>                     Disease Prevention and Control Division<br/>                     National Fisheries Technique Extension Center (NFTEC)<br/>                     Ministry of Agriculture<br/>                     Mai Zi Dian Street No 18<br/>                     Chanyang District, Beijing 100026, China<br/>                     Fax: 86-10-65074250; Tel: 86-010-64195073<br/>                     E-mail: <a href="mailto:zewenzhu@sina.com">zewenzhu@sina.com</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>DPR Korea</b>           | <p>Mr. Chong Yong Ho<br/>                     Director of Fish Farming Technical Department, Bureau of Freshwater Culture<br/>                     Sochangdong Central District, P.O.Box. 95 , Pyongyang,<br/>                     DPR Korea<br/>                     Fax- 850-2-814416; Tel- 3816001, 3816121</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Hong Kong<br/>China</b> | <p>Dr Siu Ho Lim<br/>                     Fisheries Officer (Mariculture Development)<br/>                     Agriculture, Fisheries and Conservation Department<br/>                     Aberdeen Fisheries Office, 100 A, Shek Pai Wan Road<br/>                     Hong Kong<br/>                     Tel: 852-2150 7081; Fax: 852-2152 0383<br/>                     E-Mail: <a href="mailto:holim_siu@afcd.gov.hk">holim_siu@afcd.gov.hk</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

\* The matrix provides a list of National Coordinators and focal points nominated by governments for the *Asia-Pacific Quarterly Aquatic Animal Disease Reports*.

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>India</b>     | Mr Intisar Anees Siddiqui<br>Fisheries Research & Investigation Officer<br>Department of Animal Husbandry, Dairying and Fisheries<br>Ministry of Agriculture, Krishi Bhawan,<br>New Delhi 110114, India<br>Tel: 91-11-23389419/23097013 Fax: 91-11-23070370/23384030<br>E-mail: <a href="mailto:intisarsiddiqui@yahoo.co.in">intisarsiddiqui@yahoo.co.in</a>                                                                                                                                    |
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| <b>Iran</b>      | Dr. Mohammad Azizzadeh<br>Manager Director of Aquatic Animal Diseases Department<br>Veterinary Organization<br>Ministry of Jihad – E – Sazandegi<br>Vali-ASR Ave, S.J.Asad Abadi St<br>PO Box 14155 – 6349, Tehran, Iran<br>Tel:98 21 88957007; Fax: 98 21 88957252<br>E-mail: <a href="mailto:ivoaquatichealth@ivo.org.ir">ivoaquatichealth@ivo.org.ir</a>                                                                                                                                     |
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| <b>Nepal</b>     | Mr Rajendra Kumar KC<br>Senior Fisheries Development Officer<br>Central Fisheries Laboratory<br>Central Fisheries Building, Balaju, Kathmandu. Nepal.<br>E-mail: <a href="mailto:rajendrakc07@yahoo.com">rajendrakc07@yahoo.com</a>                                                                                                                                                                                                                                                             |

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|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pakistan</b>          | <p>Mr Anser Mahmood Chatta<br/>                 Deputy Fisheries Development Commissioner<br/>                 Livestock Division, Ministry of Food, Agriculture and Livestock<br/>                 10<sup>th</sup> Floor, Shaheed-e-Millat Secretariat (Livestock Wing) I<br/>                 Islamabad, Pakistan<br/>                 Phone 009251 9208267, Fax 009251 9212630<br/> <a href="mailto:ansermchatta@yahoo.com">ansermchatta@yahoo.com</a></p>                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Republic of Korea</b> | <p>Dr Jin Woo Kim<br/>                 Director, Pathology Division<br/>                 National Fisheries Research &amp; Development Institute<br/>                 408-1, Sirang-ri, Gijang-eup, Gijang-gun, Busan 619-705, Rep. of Korea<br/>                 Tel +82 51 720 2400, Fax +82 51 720 2439</p> <p>Dr Jeong Wan Do<br/>                 Pathology Division<br/>                 National Fisheries Research &amp; Development Institute<br/>                 408-1, Sirang-ri, Gijang-eup, Gijang-gun, Busan 619-705, Rep. of Korea<br/>                 Tel +82 51 720 2400, Fax +82 51 720 2439<br/>                 E-mail: <a href="mailto:jwdo@nfrdi.re.kr">jwdo@nfrdi.re.kr</a></p>                                                                                                                                                      |
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**New Instructions on how to fill in the  
QUARTERLY AQUATIC ANIMAL DISEASE REPORT**

(Revised during the Provisional Meeting of the AG<sup>1</sup>, Bangkok, Thailand, November 7-9, 2001)

Symbols used in the report are similar to those used by FAO, OIE and WHO for the *Animal Health Yearbook*. Please read these instructions carefully before you fill in the forms.

Under the heading 'Country', please enter your country.

Under the heading 'Period', please enter the reporting quarter (months) and year, e.g. January to March 2002.

Under the heading "Month", please enter months of a quarter in question, e.g. January, February, March.

In "Level of Diagnosis", please enter the Level of Diagnosis used, e.g., I, II, or III. See Section C below.

In "Epidemiological Comment Numbers", please enter the serial numbers, and write your corresponding epidemiological comments on page 2. See Section D below for guidance on the subjects to be covered under Epidemiological Comments.

If an unknown disease of serious nature appears, please fill in the last line of the form, with additional information on "Level of Diagnosis" and "Epidemiological Comment Numbers" as above.

Please do not fail to enter "\*\*\*\*" or "-" as appropriate against each disease, which is essential to incorporate your information on the *Quarterly Aquatic Animal Disease Report (Asia and Pacific Region.)*

If you have new aquatic animal health regulations introduced within the past six months, please describe them under Section 2 on page 2.

Please use the following symbols to fill in the forms.

A. Symbols used for negative occurrence are as follows:

\*\*\* This symbol means that no information on a disease in question is available due to reasons such as lack of surveillance systems or expertise.

- This symbol is used when a disease is not reported during a reporting period. However the disease is known to be present in the country (date of last outbreak is not always known).

0000 This symbol is used when disease surveillance is in place and a disease has never been reported.

(year) Year of last occurrence (a disease has been absent since then).

B. Symbols used for positive occurrence are shown below.

+ This symbol means that the disease in question is reported or known to be present.

+? This symbol is used when the presence of a disease is suspected but there is no recognised occurrence of clinical signs of the disease in the country. Serological evidence and isolation of the causal agent may indicate the presence of the disease, but no confirmed report is available. **It is important that the species of animals to which it applies is indicated in the "Comments" on page 2 of the form if you use this symbol.**

+ ( ) These symbols mean that a disease is present in a very limited zone or zones as exceptional cases. It may also include the occurrence of a disease in a quarantine area.

? This symbol is used only when a disease is suspected by the reporting officer, but the presence of the disease has not been confirmed.

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<sup>1</sup> Regional Advisory Group on Aquatic Animal Health (AG)

### C. Levels of Diagnosis

| LEVEL | SITE       | ACTIVITY                                                           |
|-------|------------|--------------------------------------------------------------------|
| I     | Field      | Observation of animal and the environment<br>Clinical examination  |
| II    | Laboratory | Parasitology<br>Bacteriology<br>Mycology<br>Histopathology         |
| III   | Laboratory | Virology<br>Electron microscopy<br>Molecular biology<br>Immunology |

#### D. Subjects to be covered in the Epidemiological Comments

1. Origin of the disease or pathogen (history of the disease);
2. Mortality rate (high/low or decreasing/increasing);
3. Size of infected areas or names of infected areas;
4. Death toll (economic loss, etc.);
5. Preventive/control measures taken;
6. Disease characteristics (unusual clinical signs or lesions);
7. Pathogen (isolated/sero-typed);
8. Unknown diseases (describe details as much as possible);
9. Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); and
10. Published paper (articles in journals)/web site, etc.

#### IMPORTANT

Please send the **original report** or the best photocopy thereof to the OIE and/or NACA **by fax and registered airmail**. Faxed reports are needed to check whether or not the reports are all right. The deadline for submission of the reports is **two and a half months (75 days)** after the end of the quarterly period.

If you require further explanation, please write to the OIE (Tokyo), NACA (Bangkok) or FAO (Rome) at the following addresses, respectively:

#### **OIE Regional Representation for Asia and the Pacific**

Sanseido Building, 4F  
2-4-10 Kojimach, Chyoda-Ka  
Tokyo 102-0083, Japan  
Tel: 81-3-5212-3191, Fax: 81-3-5212-3194  
E-Mail: [rr.asiapacific@oie.int](mailto:rr.asiapacific@oie.int)

#### **NACA**

P. O. Box 1040, Kasetsart Post Office, Bangkok 10903, Thailand  
Tel: 66-2-561-1728/9 (ext. 117); Fax: 66-2-561-1727  
Dr. C.V. Mohan  
E-mail: [mohan@enaca.org](mailto:mohan@enaca.org)

#### **FAO**

Fishery Resources Division, Fisheries Department  
FAO of the United Nations  
Viale delle Terme di Caracalla, 00100 Rome  
Tel. +39 06 570 56473; Fax + 39 06 570 530 20  
E-mail: [Rohana.Subasinghe@fao.org](mailto:Rohana.Subasinghe@fao.org)

**Notes**

Published by the Network of Aquaculture Centres in Asia-Pacific and the Food and Agriculture Organization of the United Nations. For inquiries regarding editorial or technical content, please write to NACA, P.O. Box 1040, Kasetsart P.O. , Bangkok 10903, Thailand; Tel. (662) 561- 1728 to 9; Fax: (662) 561-1727; e-mail: [info@enaca.org](mailto:info@enaca.org) or [mohan@enaca.org](mailto:mohan@enaca.org).  
Website: <http://www.enaca.org>

**ISSN 1513-6558**