2013/4

QUARTERLY AQUATIC ANIMAL DISEASE REPORT (Asia and Pacific Region)

October – December 2013

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Network of Aquaculture Centres in Asia-Pacific

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Contents

Foreword

12th Meeting of the Asia Regional Advisory Group on Aquatic Animal Health

The 12th Meeting of the Asia Regional Advisory Group on Aquatic Animal Health was held on 11-13 November 2013 at Maruay Garden Hotel, Bangkok, Thailand. The meeting, attended by 10 Advisory Group members and one guest participant, discussed current concerns and issues on aquatic animal health as well as other health-related topics. These include progress reports from NACA and other partner agencies (including OIE, FAO, SEAFDEC AQD, DA Australia, and AAHRI Thailand), updates on aquatic animal diseases in the region, status of disease reporting in the Asia-Pacific, list of diseases for QAAD reporting in 2014, status of WAHIS online reporting, and status of implementation of Asia Technical Guidelines on Aquatic Health Management.

The Table below summarizes the action plans for the Asia Regional Aquatic Animal Health Programme based on the recommendations made by the group.

Issue(s)	Actions needed
1) Acute hepatopancreatic necrosis syndrome (AHPNS)	• NACA to update and revise the Disease Card to include: name change to AHPND based on the Final Report of FAO on TCP in Vietnam; causative agent as identified by Dr. Lightner's group (Tran et al., 2013); bioassay method for confirmation; and a warning on biosecurity risks in feeding live polychaetes to shrimp broodstock. • NACA to continue gathering information regarding on-ground developments of the disease in the region, and keep farmers' awareness on role of live movements in disease spread. • NACA to organize a follow-up workshop on AHPND to bring countries together and share information on the status and state of knowledge about the disease including rapid diagnostic kits. The workshop should be done towards the end of the year (close to DAA9 schedule in HCMC, Vietnam); • AG and/or NACA to present AHPND status in various international gatherings: WAS Adelaide meeting (June 2014); DAA9 (November 2014). • NACA to widely disseminate available published information.

2) SPF biosecurity/health certificate	• NACA to generate a generic form of the certificate that can be used as a model/tool is assessing the origin of broodstock and health status of SPF stocks.
3) OIE Standards	• NACA to summarize proposed changes to alert members of its significance to the region. This will be an annual action following each AGM
4) QAAD List	• Delist Akoya oyster disease and Milky haemolymph disease of spiny lobsters; • Adopt changes in the OIE list for finfish diseases; • Include Ostereid herpesvirus in the list with a note that it is listed in OIR as emerging disease
5) Scale-drop Syndrome	• NACA and AG to work on concerned experts to develop information sheet of the disease including case definition, disease card, etc. This is to support the surveillance effort in the region. E Leano to make a follow-up with Dr. Siow Foong Chang (MSD Animal Health)
6) Aquatic animal health training	• NACA to formulate a survey questionnaires for distribution to member countries ro identify common training needs.
9) OIE-PVS Tool	• NACA , AG and OIE-Tokyo to promote implementation of and assist in the preparation of application for PVS.
10) Assessment tool for TG implementation in the region	• Drs. I. Ernst and CV Mohan to formulate a technical approach (questionnaires) for assessment of TG implementation in the region. Target respondents will be the NCs. • First draft of the questionnaires to be circulated to AG members for comments and suggestions. • Results of the assessment will be presented in the next AGM.
11) Annual AG Meeting	• NACA should consider to invite one member country per AGM to present their AAH activities and programme, with either partial or full funding.

Reports Received by the NACA Secretariat

Country: AUSTRALIA Period: October - December 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	-(2012)	-(2012)	-(2012)		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	+	-(2013)	+	III	2
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	-(2013)	-(2013)	+	II	3
10.Enteric septicaemia of catfish	(2011)	(2011)	(2011)		4
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-(2013)	-(2013)	-(2013)		5
3. Infection with abalone herpes-like virus	-(2011)	-(2011)	-(2011)		6
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	0000	0000	0000		
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	-(2008)	-(2008)	-(2008)		7
5. Infectious myonecrosis	0000	0000	0000		
6. White tail disease (MrNV)	-(2008)	-(2008)	-(2008)		8
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	0000	0000	0000		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-(2008)	-(2008)	-(2008)		9
2. Infection with *Batrachochytrium dendrobatidis*	-(2013)	-(2013)	-(2013)		10
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	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
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

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

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	**Epizootic haematopoietic necrosis** was not reported this period despite passive surveillance in Victoria (last reported 2012), the Australian Capital Territory (last reported 2011), New South Wales (last reported 2009) and South Australia (last reported 1992). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Western Australia.
2	**Epizootic ulcerative syndrome** 1. **Reported in Western Australia** in October and December, passive surveillance; 2. **Species affected** – Black bream (*Acanthopagrus butcheri*); 3. **Clinical signs** – skin ulceration on the body of the fish; 4. **Pathogen** – *Aphanomyces invadans*; 5. **Mortality rate** – Not available, 6. **Economic loss** – Nil; 7. **Geographic extent** – Limited to Swan and Canning Rivers; 8. **Containment measures** – Not applicable,; 9. **Laboratory confirmation** – PCR and histopathology; 10. **Publications** – None. **Epizootic ulcerative syndrome** is known to have occurred previously in New South Wales (last reported 2012), the Northern Territory (last reported 2012), Victoria (last reported 2012), and South Australia (last reported 2008). Passive surveillance and never reported in Tasmania. No information available in the Australian Capital Territory.

3	**Viral encephalopathy and retinopathy** 1. **Reported in Queensland** in December, passive surveillance; 2. **Species affected** – 50 day old gold spot grouper fry (*Epinephelus coioides*) and 54 day old Queensland grouper fry (*Epinephelus lanceolatus*); 3. **Clinical signs** – lethargy, erratic swimming, mortality; 4. **Pathogen** – *Betanodavirus*; 5. **Mortality rate** – Queensland grouper 200 (0.4%); gold spot grouper euthanized after diagnosis, 6. **Economic loss** – Nil; 7. **Geographic extent** – Limited to land-based tanks on a single property; 8. **Containment measures** – Not applicable,; 9. **Laboratory confirmation** – Histopathology; 10. **Publications** – None. Viral encephalopathy and retinopathy is know to have occurred previously in the Northern Territory (last reported 2013), New South Wales (last reported 2010), South Australia (last reported 2010) and Tasmania (last reported 2000). Passive surveillance and never reported in Victoria. No information available in the Australian Capital Territory.
4	**Enteric septicaemia of catfish** was not reported this period and has never been reported from wild fish in Australia. Passive surveillance and reported previously in the Northern Territory in a closed aquarium facility also holding imported ornamental fish (last reported 2011). Passive surveillance and reported previously inQueensland (last reported 2008) and Tasmania (last reported 2001) in imported zebrafish (*Brachydanio rerio*) held in PC2 containment facilities. Passive surveillance and never reported in New South Wales, South Australia, Victoria or Western Australia. No information available this period in the Australian Capital Territory.
5	**Infection with *Perkinsus olseni*** was not reported this quarter despite passive surveillance in South Australia (last reported 2013) and New South Wales (last reported 2005). Not reported despite targeted surveillance in Western Australia (last reported 2003). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Victoria. No information available for the Australian Capital Territory (suceptible species not present and no marine water responsibility).
6	**Infection with abalone herpesvirus (abalone viral ganglioneuritis)** was not reported this period despite targeted surveillance in Tasmania (last reported 2011) and passive surveillance in New South Wales (last reported 2011 and eradicated following detection in contained commercial live-holding facilities), and Victoria (last reported 2010). Passive surveillance and never reported in the Northern Territory, Queensland, South Australia and Western Australia. No information available this period for the Australian Capital Territory (no marine water responsibility).
7	**Infectious hypodermal and haematopoietic necrosis virus** was not reported this period despite passive surveillance in Queensland (last reported 2008) and Northern Territory (last reported 2003). Passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available this period in the Australian Capital Territory (no marine responsibility) and Tasmania (susceptible species not present).
8	**White tail disease** was not reported this period despite passive surveillance in Queensland (last reported 2008). Passive surveillance and never reported from the Australian Capital Territory, New South Wales, the Northern Territory, South Australia, Victoria and Western Australia. No information available this period in Tasmania (susceptible species not present).

9	**Infection with ranavirus** was not reported this period despite passive surveillance in the Northern Territory (last reported 2008, prior to official reporting for ranavirus). Suspected but not confirmed through passive surveillance in Queensland. Passive surveillance and never reported in Tasmania. No information available this period in the Australian Capital Territory, New South Wales, South Australia, Victoria and Western Australia.
10	**Infection with *Batrachochytrium dendrobatidis*** was not reported this period despite targeted surveillance in Tasmania (last reported 2013), passive surveillance in Victoria (last reported 2011) and Western Australia (last reported 2008). Suspected but not confirmed through passive surveillance in Queensland. No information available this period in the Australian Capital Territory, New South Wales, the Northern Territory, and South Australia.

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

Country: HONG KONG SAR Period: October - December 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	III	
6. Red seabream iridoviral disease	-	-	-	III	
7. Koi herpesvirus disease	-	-	-	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	-	-	-	III	
9. Viral encephalopathy and retinopathy	-	-	-	III	
10.Enteric septicaemia of catfish	0000	0000	0000	II	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	II	
2. Infection with *Perkinsus olseni*	0000	0000	0000	II	
3. Infection with abalone herpes-like virus	0000	0000	0000	II	
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000	II	
6. Acute viral necrosis (in scallops)	0000	0000	0000	II	
7. Akoya oyster disease	0000	0000	0000	II	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	III	
2. White spot disease	-	-	-	III	
3. Yellowhead disease	0000	0000	0000	III	
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	II	
5. Infectious myonecrosis	0000	0000	0000	II	
6.White tail disease (MrNV)	0000	0000	0000	II	
7. Necrotising hepatopancreatitis	0000	0000	0000	II	
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000	II	
9. *Monodon* slow growth syndrome	0000	0000	0000	II	
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000	II	
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000	II	
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000	II	
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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):

Country: INDIA **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-	-	-		
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	+( )	+( )	+( )	I,III	1,2
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	***	+( )	+( )	III	3
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	-	-	-		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	**White spot disease (WSD):** Reported in *P. monodon* and *L. vannamei* samples from very limited areas in Bhimavaram and Vijayiwada districts of Andhra Pradesh, Udupi and Uttar Kannada districts of Karnataka, Kanchipuram and Nagapattinam districts of Tamil Nadu, and Mednipur district of West Bengal during different months under the reporting period. Level I diagnosis was used.
2	WSSV was detected from *L. vannamei* samples from Kanchipuram, Nagapattinam and Puddokotai districts of Tamil Nadu.
3	IHHNV was detected in *L. vannamei* samples from Kanchipuram district of Tamil Nadu.

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

Country: INDONESIA **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	+( )	***	***	III	1
7. Koi herpesvirus disease	+( )	+( )	***	III	2
Non OIE-listed diseases					
8. Grouper iridoviral disease	+( )	***	+( )	II	3
9. Viral encephalopathy and retinopathy	+( )	***	***	II	4
10.Enteric septicaemia of catfish	***	+( )	***	II	5
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	+( )	+( )	***	III	6
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	+( )	+( )	+( )	III	7
5. Infectious myonecrosis	+( )	+( )	+( )	I,III	8
6.White tail disease (MrNV)	0000	0000	0000		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	0000	0000	0000		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	**RSIV** 1. **Origin of the disease/pathogen:** Kalianda (Lampung Province); 2. **Species affected:** *Cromileptes altivelis* 3. **Clinical signs: -** 4. **Pathogen:** Iridovirus 5. **Mortality rate:** >30%; 6. **Economic loss: -** 7. **Names of infected areas:** Kalianda (Lampung Province); 8. **Preventive/control measures:** Biosecurity measures; 9. **Laboratory confirmation:** Center of Fish Diseases and Environment Investigation Banten Laboratory;. 10. **Publications :** not published.
2	**KHV** 1. **Origin of the disease/pathogen:** Sukabumi Cirata Cianjur (West Java Province); 2. **Species affected:** *Cyprinus carpio,* Koi 3. **Clinical signs:** gill rot, weak fish, irritations, wounds, loss of scales; 4. **Pathogen:** Koi herpesvirus 5. **Mortality rate:** >30%; 6. **Economic loss:** Rp 5-10 million; 7. **Names of infected areas:** Sukabumi (West Java Province) 8. **Preventive/control measures:** Displacement of fish in the control tanks, conditioning temperature of 26^{o}C, vitamin supplementation; 9. **Laboratory confirmation:** Visual observation of clinical signs. 10. **Publications :** not published.

3	**GIV** 1. **Origin of the disease/pathogen:** Lampung Province, Batam (Riau Island Province); 2. **Species affected:** *Lates calcarifer, Epinephelus fuscoguttatus, Chromileptes altivelis* (Lampung Province), *Epinephelus fuscoguttatus* (Batam-Riau Island Province) 3. **Clinical signs:** Changes in anatomic pathology macroscopically and microscopically (Lampug Province); blackened body, mass mortality (Riau Island Province); 4. **Pathogen:** Iridovirus; 5. **Mortality rate:** 20% (Lampung Province); >60% (Riau Island province); 6. **Economic loss:** Rp 12 million (Riau Island Province); 7. **Names of infected areas:** Pesawaran and East Lampung (Lampung Province), Barelang I Batam (Riau Island Province) 8. **Preventive/control measures:** Vitamins, quarantine and good feed management; 9. **Laboratory confirmation:** Main Center Mariculture Development Center Lampung Laboratory, Mariculture Development Center Batam Laboratory; 10. **Publications:** not published.
4	**VER** 1. **Origin of the disease/pathogen:** Batam (Riau Island Province), Lampung (Lampung Province); 2. **Species affected:** *Trachionotus blochi* (Batam)*, Chromileptes altivelis, Epinephelus fuscoguttatus, Epinephelus tauvina* (Lampung Province) 3. **Clinical signs:** abnormal swimming; 4. **Pathogen:** VNN; 5. **Mortality rate:** >30% (Batam); 6. **Economic loss:** - 7. **Names of infected areas:** Mariculture Development Center Batam (Riau Island Province), Peswaran (Lampung Province); 8. **Preventive/control measures:** Vitamins, quarantine and good feed management; 9. **Laboratory confirmation:** Mariculture Development Center Batam Laboratory, Main Center Mariculture Development Lampung Laboratory; 10. **Publications:** not published.
5	**Enteric Septicaemia of Catfish** 1. **Origin of the disease/pathogen:** fingerling of *Pangasius* sp. from Bogor (West Java Province); 2. **Species affected:** *Pangasius sp.* 3. **Clinical signs:** Red spots 4. **Pathogen:** *Edwardsiella* sp.; 5. **Mortality rate:** >70%; 6. **Economic loss:** >Rp5 million 7. **Names of infected areas:** Palangkaraya (Central Kalimantan Province); 8. **Preventive/control measures:** - 9. **Laboratory confirmation:** Freshwater Aquaculture Development Center Mandiangin Laboratory; 10. **Publications:** not published.

6	**WSD** 1. **Origin of the disease/pathogen:** Tanjung Luar West Lombok Regency, Sumbawa (West Nusa Tenggara Province), Cipucuk-Karawang (West Java), Aceh, Pidie Jaya (Aceh Province), Situbondo (East Java Province), Kota Baru (South Kalimanatan Province); 2. **Species affected:** *Litopenaeus vannamei* (West Nusa Tenggara and East Java Provinces)*, Penaeus monodon* (South Sulawesi, Aceh and South Kalimantan Provinces) 3. **Clinical signs:** loss of appetite, reddish body, white spots on carapace, high mortlity (West Nusa Tenggara Province); swimming on the surface of water (Kerawang West Java), reddish body and gills, necrosis on the uropods and between segments (South Sulawesi province); weak shrimps (Aceh Province); shrimps swimming on the water surface, loss of appetite, pale body color (East Java Province), soft carapace and presence of white spots (South Kalimantan Province); 4. **Pathogen:** WSSV 5. **Mortality rate:** >80% (West NusaTenggara), >20% in October and 100% in December (West Java), 70% (South Sulawesi and Aceh), 25% (Aceh Province), low mortality (East Java); 6. **Economic loss:** Rp10-15 million (West Nusa Tenggara), >Rp20 million (South Sulawesi), Rp 2 million (Aceh Province), Rp9.5 million (West Java) 7. **Names of infected areas:** West Nusa Tenggara Province, Cipucuk Kerawang (West Java Province), Takalaar (South Sulawesi Province), Pidie Jaya (Aceh Province), Sidoarjo (East Java Province), Kota Baru (South Kalimantan Province); 8. **Preventive/control measures:** use of virus-free seeds, reduction of stress, prevention of contamination, Vitamin C supplementation, early harvest, quarantine, eradication; 9. **Laboratory confirmation:** Mariculture Development Center Lombok Laboratory, Aquaculture Business Development Center Kerawang Laboratory, Brackishwater Aquaculture Development Center Takalaar Laboratory, Freshwater Aquaculture Development Center Mandiangin Laboratory, Brackishwater Development Center Aceh Laboratory, Brackishwater Aquaculture Development Center Situbondo Laboratory; 10. **Publications:** not published.
7	**IHHN** 1. **Origin of the disease/pathogen:** Kalianda (Lampung Province); 2. **Species affected:** *Litopenaeus vannamei* 3. **Clinical signs:** no physical changes; 4. **Pathogen:** IHHNV 5. **Mortality rate:** <30%; 6. **Economic loss:** - 7. **Names of infected areas:** Kalianda (Lampung Province); 8. **Preventive/control measures:** early harvest; 9. **Laboratory confirmation:** Main Center Mariculture Development Lampung Laboratory; 10. **Publications:** not published.
8	**IMN** 1. **Origin of the disease/pathogen:** Kalianda (Lampung Province), Cinangka Serang (Banten Province); 2. **Species affected:** *Litopenaeus vannamei* 3. **Clinical signs:** - 4. **Pathogen:** IMNV 5. **Mortality rate:** <30% (Banten) 6. **Economic loss:** - 7. **Names of infected areas:** Kalianda (Lampung Province), Cinangka Serang (Banten Province); 8. **Preventive/control measures:** Biosecurity (Banten), early harvest (Lampung); 9. **Laboratory confirmation:** Center of Fish Diseases and Environment Investigation Banten Laboratory, Main Center Mariculture Development Lampung Labortory,; 10. **Publications:** not published.

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

Country: IRAN **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	-	-	-		
3. Spring viraemia of carp	-	-	-		
4. Viral haemorrhagic septicaemia	-	-	+	III	1
5. Epizootic ulcerative syndrome	0000	0000	0000		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	-	-	-		
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	**VHS** reported in 11 farms in Kordestan (1 farm), Chahar Mahal Bakhtiari (6 farms) and Lorestan (4 farms) in December. 1. **Origin of the disease:** unknown but under study; 2. **Species affected** – *Onchorrhyncus mykiss* (Rainbow trout) juveniles and adults; 3. **Clinical signs** – bleeding under the skin around the base of pectoral and pelvic fins, pale gills with pinpoint haemorrhages, bleeding around the eyes, pale liver (yellow and grey) with evidence of haemorrhages on surface, pinpoint haemorrhages in the fatty tissues; 4. **Pathogen** – VHSV; 5. **Mortality rate** – >30% (morbidity almost 50%), 6. **Economic loss** – 7. **Geographic extent** – Kordestan, Chahar Mahal Bakhtiari and Lorestan; 8. **Control measures** – all affected farms were quarantined and disinfected; 9. **Laboratory confirmation** – Real-time PCR and cell culture; confirmed by Centre of Veterinary Laboratory (CVL); 10. **Publications** – None.

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

Country: JAPAN **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	-	-	-	I	
6. Red seabream iridoviral disease	+	+	+	III	
7. Koi herpesvirus disease	+	+	+	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000	I	
9. Viral encephalopathy and retinopathy	+	+	-	III	
10.Enteric septicaemia of catfish	-	-	-	I	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	I	
2. Infection with *Perkinsus olseni*	-	-	-	I	
3. Infection with abalone herpes-like virus	0000	0000	0000	I	
4. Infection with *Xenohaliotis californiensis*	-	-	-	III	
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	+	+	+	II	
6. Acute viral necrosis (in scallops)	0000	0000	0000	I	
7. Akoya oyster disease	-	-	-	I	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	I	
2. White spot disease	-	-	-	I	
3. Yellowhead disease	0000	0000	0000	I	
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	I	
5. Infectious myonecrosis	0000	0000	0000	I	
6.White tail disease (MrNV)	0000	0000	0000	I	
7. Necrotising hepatopancreatitis	0000	0000	0000	I	
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000	I	
9. *Monodon* slow growth syndrome	0000	0000	0000	I	
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000	I	
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-	-	-	I	
2. Infection with *Batrachochytrium dendrobatidis*	-	-	-	I	
ANY OTHER DISEASES OF IMPORTANCE					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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):

Country: KOREA, REPUBLIC OF Period: October - December 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	-	-	-	III	
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	-	-	+	III	1
5. Epizootic ulcerative syndrome	0000	0000	0000		
6. Red seabream iridoviral disease	+	-	-	III	2
7. Koi herpesvirus disease	-	-	-	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	-	-	-	III	
10.Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-	-	-	III	
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	-	-	-	III	
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	-	-	-	III	
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	-	-	-	III	
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	0000	0000	0000		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	0000	0000	0000		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	?	?	?		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	**VHS** 1. **Reported in:** Seogwipo of Jeju-do in December; 2. **Species affected** – *Paralichthys olivaceus* (Olive flounder); 3. **Clinical signs** – haemorrhage at the base of the fins, oedema in the peritoneal cavity; 4. **Pathogen** – VHSV (co-infection with bacteria and parasites); 5. **Mortality rate** – low (3%), decreasing, 6. **Economic loss** – 7. **Geographic extent** – limited to one farm; 8. **Control measures** – prohibition of movement, disinfection of equipment and facilities;; 9. **Laboratory confirmation** – PCR method and sequencing by National Fisheries Reserch and Development Institute (NFRDI); 10. **Publications** – None.
2	**RSIV** 1. **Reported in:** Tongyoung and Geoje of Gyeongsangnam-do, Gangneung of Gangwon-do, Yeosu of Jeollanan and Jeju-do 2. **Species affected** – *Lateolabrax japonicus* (seabass; Tongyoung), *Platichthys stellatus* (starry flounder; Gangneung), *Oplegnathus fasciatus* (rock bream; Yeosu), *Paralichthys olivaceus* (olive flounder; Goeje) 3. **Clinical signs** – - 4. **Pathogen** – RSIV; 5. **Mortality rate** – -, 6. **Economic loss** – 7. **Geographic extent** – limited to one farm; 8. **Control measures** – prohibition of movement, disinfection of equipment and facilities;; 9. **Laboratory confirmation** – PCR method and sequencing by NFRDI; 10. **Publications** – None.

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

Country: LAO PDR **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	***	***	***		
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	***	***	***		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
Non OIE-listed diseases					
4. Infection with *Marteilioides chungmuensis*	***	***	***		
5. Acute viral necrosis (in scallops)	***	***	***		
6. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	***	***	***		
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	***	***	***		
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. *Monodon* slow growth syndrome	***	***	***		
9. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*; *Xenohaliotis californiensis*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	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
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

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

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):

Country: MALAYSIA **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000	I,II,III	
3. Spring viraemia of carp	0000	0000	0000	I,II,III	1
4. Viral haemorrhagic septicaemia	0000	0000	0000	I,II,III	
5. Epizootic ulcerative syndrome	(1986)	(1986)	(1986)	I.II	
6. Red seabream iridoviral disease	-	-	+	I,II,III	2
7. Koi herpesvirus disease	-	-	-	I,II,III	3
Non OIE-listed diseases					
8. Grouper iridoviral disease	+	-	+	III	4
9. Viral encephalopathy and retinopathy	-	-	+	III	5
10.Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000	III	
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	-	-	-	I,III	6
2. White spot disease	-	-	-	I,III	7
3. Yellowhead disease	-	-	-	I,III	8
4. Infectious hypodermal and haematopoietic necrosis	-	-	-	I,III	9
5. Infectious myonecrosis	-	-	-	III	10
6.White tail disease (MrNV)	-	-	-	III	11
7. Necrotising hepatopancreatitis	-	-	-	III	12
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	-	-	-		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	+	+	+	I,II,III	13
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-	-	-		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1. Hepatopancreatic parvo virus disease	+	+	+	III	14

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	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
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

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

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	**Spring viraemia of carp** 1. No positive cases detected (PCR) during DoF active surveillance programme
2	**Red seabream iridoviral disease** 1. Grouper fry samples from Selangor were detected positive using PCR during DoF active surveillance programme
3	**Koi herpesvirus disease** 1. No positive case was detected (PCR) during DoF active surveillance programme
4	**Grouper Iridoviral disease (GIV)** 1. Grouper fry samples from Selangor were detected positive for GIV tested in Fisheries Biosecurity Johor during DoF active surveillance programme.
5	**Viral encephalopathy and retinopathy** 1. Grouper fry samples from Selangor were detected positive for VNN tested in Fisheries Biosecurity Johor during DoF active surveillance programme

6	**Taura syndrome virus (TSV)** (*Penaeus monodon, Litopenaeus vannamei*) 1. TSV was not detected in all the samples of postlarvae sent to Private laboratory for routine and monitoring purposes. 2. No positive on reported cases detected by PCR although active surveillance was conducted by DoF in West and East Malaysia.
7	**White Spot Syndrome Virus (WSSV)** No positive on reported cases detected by PCR for samples sent to Private laboratory for routine and monitoring purposes. No positive cases detected by PCR although active surveillance was conducted by DOF in West and East Malaysia.
8	**Yellow head disease (YHV)** (*P. monodon, Litopenaeus vannamei*) 1. YHV was not detected in all the 6 samples sent to private laboratory for routine and monitoring purposes. 2. No positive cases detected (PCR) although active surveillance was conducted by DoF in East Malaysia
9	**Infectious hypodermal and haematopoietic necrosis virus (IHHNV)** (*Macrobrachium rosenbergii*, *P. monodon, Litopenaeus vannamei*) 1. No positive case detected by PCR through active surveillance conducted by DoF in West and East Malaysia.
10	**Infectious Myonecrosis (IMNV)** 1. No positive on reported cases detected by PCR, although active surveillance was conducted by DoF in West and East Malaysia.
11	***Macrobrachium rosenbergii* Nodavirus (MrNV)** 1. No samples were tested for MrNV.
12	**Necrotising hepatopancreatitis (NHPB)** 1. No samples were tested for NHPB.

13	**Acute hepatopancreatic necrosis syndrome (AHPNS)** 1. 7 positive cases from the outbreak of 5 farms in Terengganu and 2 farms in Kedah were tested suspected positive by National Fish Disease Research Institute (NaFisH) Penang in October to December.
14	**Hepatopancreatic parvo virus disease (HPV) (*P. monodon*)** 1. 27 out of 46 post-larval samples were tested positive for HPV in Private Laboratory for routine and monitoring purposes.

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

Country: MYANMAR **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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					
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	***	***	***		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*					
2. Infection with *Perkinsus olseni*					
3. Infection with abalone herpes-like virus					
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*					
6. Acute viral necrosis (in scallops)					
7. Akoya oyster disease					
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	-	-	-	III	1
2. White spot disease	-	-	-	III	
3. Yellowhead disease	-	-	-	III	
4. Infectious hypodermal and haematopoietic necrosis	-	-	-	III	
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)					
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus					
2. Infection with *Batrachochytrium dendrobatidis*					
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	During this period, we have received 15 samples of shrimps (11 frozen and 4 live shrimps and soft-shelled crabs for export) for testing for TSV, WSSV and IHHNV. All samples were found negative for the viruses.
2	Note: Parasitic infestations due to poor water quality were observed during fish farm visits in Yangon and Ayeyarwady Regions.
3	

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

Country: NEPAL **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	1
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8.Grouper iridoviral disease					
9.Viral encephalopathy and retinopathy					
10.Enteric septicaemia of catfish					
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	***	***	***		
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	***	***	***		
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)					
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	**Epizootic ulcerative syndrome** **1. Seen in Rupandehi, Parsa and Kavre districts** in November; 2. **Species affected** – mostly Indian carps (150-400g) in Terai District and Chinese carps (500-800g) in Mid hills; **3. Clinical signs** – scale removal, haemorrhage on finbase and operculum edge; DO problem in Mid Hills **4. Pathogen** –; **5. Mortality rate** –, 6. **Economic loss** – 1 ton in Terai and 100 kg in Mid Hills; **7. Geographic extent** – **8. Control measures** – 500 kg/ha lime and 20 kg/ha O_2max; **9. Laboratory confirmation** –; **10. Publications** – None.
2	
3	

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

Country: PHILIPPINES Period: October - December 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	- (2002)	- (2002)	- (2002)	I	1
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	0000	0000	0000	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	- (2008)	- (2008)	- (2008)	III	2
9. Viral encephalopathy and retinopathy	+	-	+	III	3
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	III	4
2. White spot disease	+	+	+	III	5
3. Yellowhead disease	- (1999)	- (1999)	- (1999)	III	6
4. Infectious hypodermal and haematopoietic necrosis	+	+	+	III	7
5. Infectious myonecrosis	0000	0000	0000	III	8
6.White tail disease (MrNV)	0000	0000	0000	III	9
7. Necrotising hepatopancreatitis	0000	0000	0000	III	10
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1. Monodon baculovirus (MBV)					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	Ninety (90) samples of eels-(*60 Monopterus albus* and 30 *Anguilla spp.)* were negative for Epizootic Ulcerative Syndrome by gross morphological examination. Samples were from Cagayan Valley, Nueva Viscaya and Pampanga. Examination was conducted by the Bureau of Fisheries and Aquatic Resources (BFAR) Central Office Fish Health Laboratory.
2	Nine (9) samples – (5 grouper, 3 snapper and 1 pompano) were analyzed using Polymerase Chain Reaction (PCR) test. All samples showed negative results for Iridoviral Disease. The samples were collected from Camarines Norte and Sarangani Province. Examination was conducted by BFAR Central Office Fish Health Laboratory and Southeast Asian Fisheries and Development Center/ Aquaculture Department (SEAFDEC/AQD) Laboratory.
3	Twenty-nine (29) samples- (5 grouper, 13 pompano, 6 siganid and 5 snapper) were analyzed using PCR test. Nine (3 pompano, 4 siganid, 1 grouper and 1 snapper) showed positive results for Viral Encephalopathy and Retinopathy**.** The positive samples were collected from Sarangani, Iloilo, Aklan and Guimaras. Examination was conducted by the BFAR Central Office and SEAFDEC/AQD Laboratories.
4	One hundred sixty-four (164) samples - (124 *Penaeus vannamei*, 26 *Penaeus monodon*, 11 *S.serrata* 3 crabs*)* of different stages (brood stock, adult, fry, juvenile) were analyzed using PCR test. All samples showed negative results for Taura Syndrome. The samples were collected from Cebu, Bohol, Lanao del Norte, Batangas, Iloilo City, Sorsogon, Pangasinan, Zambales, Camarines Sur, Misamis Occidental, Zamboanga, Sarangani Province, Oriental Mindoro, Agusan del Norte, Dagupan City, Bulacan, General Santos City, Pampanga, Quezon Province and Cagayan . Other samples were imported from Hawaii, USA. Examinations were conducted by BFAR Central Office, BFAR Region III, BFAR Region VII, BFAR Region VIII and SEAFDEC/AQD Laboratories.

5	Four hundred seventy-six (476) samples of *P.vannamei, P.monodon, S.serrata,* shells and slugs of different stages (fry, juvenile, adult and brood stock) were tested using PCR. Forty eight (23 *P.*vannamei, 23 *P.monodon* and 2 *S.serrata*) were positive for White Spot Syndrome Virus. The positive samples were from Iloilo, Negros Oriental, Aklan, Cebu, General Santos City, Bohol, Lanao del Norte, Sorsogon, Pangasinan, Camarines Sur, Dagupan City, Bulacan and Sarangani Province. Examinations were conducted by BFAR Central Office, BFAR Region III, BFAR Region VI, BFAR Region VII, BFAR Region VIII, BFAR Region XI, Negros Prawn Producers Cooperative and SEAFDEC/AQD Laboratories.
6	One hundred twenty-five (125) samples - (97 *P.vannamei,* 17 *P.monodon* and 11 *S.serrata)* of different stages (fry, juvenile, grow out, adult and brood stock) were tested using PCR. All samples showed negative results for Yellowhead Disease. The samples were collected from Cebu, Bohol, Lanao del Norte, Batangas, Iloilo City, Sorsogon, Pangasinan, Zambales, Camarines Sur, Misamis Occidental, Zamboanga, Sarangani Province, Oriental Mindoro, Agusan del Norte, Dagupan City, General Santos City, Quezon Province and Cagayan. Other samples were imported from Hawaii, USA. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
7	One hundred ninety-four (194) samples – (53 *P.monodon*, 130 *P.vannamei* and 11 *S.serrata)* of different stages (fry, juvenile, adult, brood stock) were analyzed using the PCR Test. Twenty (6 *P.vannamei,* 14 *P.monodon,)* showed positive result for Infectious Hypodermal and Haematopoietic Necrosis Virus. The positive samples were collected from Bohol, Agusan del Norte, Zambales, Misamis Occidental, Bulacan, Sorsogon, Iloilo, Negros Occidental and Camarines Sur. Examinations were conducted by BFAR Central Office, BFAR Region III, BFAR Region VII and SEAFDEC/AQD Laboratories.
8	One hundred sixty-three (163) samples - (126 *P.vannamei*, 26 *P.monodon* and 11 *S.serrata)* of different stages (fry, juvenile, adult and bloodstock) were tested using PCR. All samples showed negative results for Infectious Myonecrosis. The samples were collected from Cebu, Bohol, Lanao del Norte, Batangas, Iloilo City, Sorsogon,, Pangasisnan, Zambales, Camarines Sur, Misamis Occidental, Zamboanga, Sarangani Province, Batangas, Oriental Mindoro, Agusan del Norte, Dagupan City, Bulacan, General Santos City, Quezon Province and Cagayan. Other samples were imported from Hawaii, USA. Examinations were conducted by BFAR Central Office, BFAR Region VII and SEAFDEC/AQD Laboratories.
9	Four (4) samples of *P.monodon* were tested using PCR. The sample showed negative results for White Tail Disease. The samples were collected from Lanao del Norte and Agusan del Norte. Examination was conducted by BFAR Central Office Fish Health Laboratory.
10	One hundred fourteen (114) samples - (97 *P.vannamei* and 17 *P.monodon)* of various stages (fry, juvenile, adult and brood stock) were tested using PCR. All samples showed negative results for Necrotising Hepatopancreatitis. The samples were collected from Cebu, Bohol, Lanao del Norte, Batangas, Iloilo City, Sorsogon, Pangasinan, Zambales,Camarines Sur, Misamis Occidental, Zamboanga, Sarangani Province, Oriental Mindoro, Agusan del Norte, Dagupan City, Bulacan, General Santos City, Zambales and Sarangani Province. Other samples were imported from Hawaii, USA. Examination was conducted by BFAR Central Office and BFAR Region VII Laboratories.

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

Country: SINGAPORE Period: October - December 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	(2013)	(2013)	(2013)	III	
7. Koi herpesvirus disease	(2012)	(2012)	(2012)	III	1
Non OIE-listed diseases					
8. Grouper iridoviral disease	+	(2013)	(2013)	III	2
9. Viral encephalopathy and retinopathy	+	(2013)	(2013)	III	3
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	(2013)	(2013)	+	III	4
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	+?	+?	+?	III	5

ANY OTHER DISEASES OF IMPORTANCE					
1. Infectious spleen and kidney necrosis virus (ISKNV) (marine and ornamental fish)	+	(2013)	(2013)	III	6
2. *Aeromonas salmonicida* (in goldfish)	0000	0000	0000	III	7

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	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
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

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

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	**Koi herpesvirus (KHV)** DNAwas not detected in 34 batches of imported and 1 batch of locally farmed ornamental koi from surveillance programs this quarter. KHV DNA was detected in one batch of healthy imported koi by real-time PCR while in quarantine. As the expeorter's premise was unable to demonstrate clear segregation of the infected batch from other batches of koi in the quarantine area, all koi in the quarantine area (estimated at 7000 pcs) were culled.
2	**Singapore grouper iridovirus (SGIV) and Infectious Spleen and Kidney Necrosis Virus (ISKNV)** was detected by PCR in one batch of diseased imported black grouper fingerlings in October. Infection with Viral nervous necrosis (VNNV) was confirmed by histopathological findings and PCR in these fish (see comment 3).
3	**Viral nervous necrosis virus (VNNV)** was detected in a batch of imported black grouper in October, which were also infected with SGIV and ISKNV (see comment 6). In the same month, VNNV was detected in a batch of 23 day-old red snapper from a local land-based hatchery. All detections of VNNV were confirmed by histopathological examination and PCR. VNNV was not detected in 13 batches of imported marine fish fingerlings and diseases marine fish this quarter.

4	**White spot syndrome virus (WSSV)** was detected by qPCR and histopathological examination in diseased lobsters submitted by the aquaculture research facility of a tertiary institute in December. All lobsters in the research facility were culled. WSSV was not detected in 28 batches of ornamental crustaceans submitted from targeted surveillance programs and in approximately 226 *Litopenaeus vannamei* submitted from a local broodstock farm this quarter.
5	26 swab samples from imported frogs were submitted in November and December for ***Batrachochytrium dendrobatidis*** **(Bd)** testing by qPCR. Validation of the assay is in progress.
6	**Infectious spleen and kidney necrosis virus (ISKNV)** was detected by histopathologial examination and qPCR in a batch of diseased imported black grouper fingerlings in October. SGIV (see comment 2) and VNNV (see comment 3) were also detected in this batch of fish. ISKNV was not detected in 10 batches of imported marine fish fingerlings and diseased marine fish this quarter.
7	***Aeromonas salmonicida*** was not detected this quarter in all 2 batches of goldfish submitted under a targeted surveillance program for goldfish exported to Australia.

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

Country: SRI LANKA **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	III	1
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	0000	0000	0000	III	2
4. Viral haemorrhagic septicaemia	0000	0000	0000	III	3
5. Epizootic ulcerative syndrome	***	***	***		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	0000	0000	0000	III	4
Non OIE-listed diseases					
8.Grouper iridoviral disease	***	***	***		
9.Viral encephalopathy and retinopathy	***	***	***		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	+( )	+( )	+( )	III	5
3. Yellowhead disease	?( )	+( )	?( )	III	6
4. Infectious hypodermal and haematopoietic necrosis	?( )	?( )	?( )	III	7
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		

ANY OTHER DISEASES OF IMPORTANCE					
1. Laem Singh virus (LSV)	?( )	?( )	?( )	III	8
2. Monodon Baculovirus (MBV)	+( )	-	+( )	III	9

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	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
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

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

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	At the Central Veterinary Investigation Centre (CVIC), PCR has been developed for EHN. Samples were not tested for this reporting period
2	150 samples of gold fish from a fish breeding center of NAQDA were tested for SVC (PCR) and *Aeromonas salmonicida.* Another batch of samples (4 guppies, 4 common carps and 6 koi carp) were also tested for SVC. All the samples gave negative result.
3	PCR has been developed for VHS at CVIC, and no samples were tested during this reporting period.
4	A total of 17 koi carp samples were tested for koi herpesvirus at the Centre for Aquatic Disease Diagnosis and Research (CADDAR); all were found negative for KHV. These samples for export were received from the Quarantine station.
5	476 samples of *P. monodon* were tested by PCR for WSSV, and 91 samples were found positive. The testing has been carried out in the Laboratories of National Aquatic Research Agency (NARA) and National Aquatic Development Authority (NAQDA). These samples were from Northwestern province.
6	18 samples of *P. monodon* were tested by PCR for YHV in the laboratory of NARA and one sample gave positive result in the month of November.

7	19 samples of *P. monodon* were tested by PCR for IHHNV during this reporting period, and no sample was found positive. Test was carried out in the laboratory of NARA.
8	18 samples of *P. monodon* were tested by PCR for LSV during this reporting period. All samples gave negative result. Test was carried out in the laboratory of NARA.
9	3 out of 35 samples of *P. monodon* gave positive result for MBV in the months of October and December. Samples were not tested in the month of November. PCR method was used for testing at the laboratories of NARA and NAQDA.

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

Country: THAILAND **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
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	(2009)	(2009)	(2009)	II	
6. Red seabream iridoviral disease	0000	0000	0000	III	
7. Koi herpesvirus disease	(2011)	(2011)	(2011)	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	-	-	-	III	
9. Viral encephalopathy and retinopathy	-	-	-	III	
10.Enteric septicaemia of catfish	0000	0000	0000	II	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	II	
2. Infection with *Perkinsus olseni*	0000	0000	0000	II	
3. Infection with abalone herpes-like virus	0000	0000	0000	II	
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000	II	
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000	II	
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	+( )	-	-	III	1
2. White spot disease	+()	+()	+()	III	2
3. Yellowhead disease	+()	-	-	III	3
4. Infectious hypodermal and haematopoietic necrosis	+()	+()	+()	III	4
5. Infectious myonecrosis	0000	0000	0000	III	
6.White tail disease (MrNV)	+()	-	+()	III	5
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	+( )	+()	+()	II	6
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	(2011)	(2011)	(2011)	III	
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000	II	
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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 1,508 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 4 specimens or 0.26 % recorded as PCR positive or carrying TSV genes. Shrimp farm with positive testing results was subjected to health improvement, movement control, eradication and/or farm disinfection.
2	A total of 1,502 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 56 specimens or 3.73 % recorded as PCR positive or carrying WSSV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection.
3	A total of 1,507 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 21 specimens or 1.79 % recorded as RT-PCR positive or carrying YHV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection.
4	A total of 2,083 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 26 specimens or 1.25 % recorded as PCR positive or carrying IHHNV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection.
5	A total of 186 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 63 specimens or 33.87 % recorded positive or carrying MrNV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection

6	A total of 68 shrimp samples from shrimp farms had been tested at Histopathology Laboratories of the DOF under passive surveillance. 7 specimens or 10.29 % recorded as AHPNS positive. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection

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

Country: THAILAND Period: October - December 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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	(2009)	(2009)	(2009)	II	
6. Red seabream iridoviral disease	0000	0000	0000	III	
7. Koi herpesvirus disease	(2011)	(2011)	(2011)	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***	III	
9. Viral encephalopathy and retinopathy	-	-	-	III	
10.Enteric septicaemia of catfish	0000	0000	0000	II	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	II	
2. Infection with *Perkinsus olseni*	0000	0000	0000	II	
3. Infection with abalone herpes-like virus	0000	0000	0000	II	
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000	II	
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000	II	
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	-	-	-	III	
2. White spot disease	-	+()	+()	III	1
3. Yellowhead disease	-	+()	+()	III	2
4. Infectious hypodermal and haematopoietic necrosis	-	+()	+()	III	3
5. Infectious myonecrosis	0000	0000	0000	III	
6.White tail disease (MrNV)	+()	-	-	III	4
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	-	+()	+()	II	5
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	(2011)	(2011)	(2011)	III	
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000	II	
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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 656 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 26 specimens or 2.44 % recorded as PCR positive or carrying WSSV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection.
2	A total of 667 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 4 specimens or 0.60 % recorded as RT-PCR positive or carrying YHV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection.
3	A total of 864 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 18 specimens or 2.08 % recorded as PCR positive or carrying IHHNV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection.
4	A total of 29 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 20 specimens or 68.97 % recorded positive or carrying MrNV genes. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection
5	A total of 20 shrimp samples from shrimp farms had been tested at Histopathology Laboratories of the DOF under passive surveillance. 4 specimens or 20.0 % recorded as AHPNS positive. Shrimp farms with positive testing results were subjected to health improvement, movement control, eradication and/or farm disinfection

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

Country: VIETNAM **Period: October - December 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
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		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	-	-	-		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-	-	-		
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	+	+	+	I,III	1
3. Yellowhead disease	-	-	-		
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	-	-	-		
9. *Monodon* slow growth syndrome	-	-	-		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	+	+	+	I,II	2
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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

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	**White Spot Disease (WSD)** **Pathogen**: White spot syndrome virus (WSSV) **Species affected:** *Penaeus monodon* and *Litopenaeus vannamei* (15-50 DOC) **Name of affected area:** reported in 5 provinces including Ha Tinh, Long An, Tien Gang, Ben Tre and Ca Mau. **Mortality rate:** medium to high, 100% in some cases within 10 d. **Clinical signs:** lethargic or moribund shrimps accumulated at pond surface and edges, slow to erratic swimming behavior, overall body color often reddish, minute to large (0.5-2.0 mm diameter) white inclusions embedded in the cuticle, especially in the removed carapace held to light after scraping off attached tissue (not always seen) **Control measures:** early harvest, strict isolation of infected ponds with movement and transport controls, disinfection of infected ponds using Calcium hypochlorite (chlorine).
2	**Acute Hepatopancreatic Necrosis Syndrome (AHPNS)** **Pathogen**: *Vibrio parahaemolyticus* with Phage A3 **Species affected:** *Penaeus monodon* and *Litopenaeus vannamei* (15-50 DOC) **Name of affected area:** reported in 3 provinces including Phu Yen, Ben Tre and Ca Mau with a total affected culture area of 112 ha. **Mortality rate:** Mortality, recorded at 10-45 days post stocking in intensive and semi-intensive farming systems, was as high as 95%. **Clinical signs:** shrimps become lethargic with soft, darkened shells, mottling of the carapace. Pathology appears to be limited to hepatopancreas. **Control measures:** strict isolation of infected ponds with movement and transport controls, disinfection of infected ponds using Calcium hypochlorite (chlorine).

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

List of Diseases in the Asia-Pacific
Quarterly Aquatic Animal Disease Report (Beginning 2013)

1. DISEASES PREVALENT IN THE REGION	
1.1 FINFISH DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
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	
1.2 MOLLUSC DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with *Bonamia exitiosa*	1. Infection with *Marteilioides chungmuensis*
2. Infection with *Perkinsus olseni*	2. Akoya oyster disease
3. Infection with abalone herpes-like virus	3. Acute viral necrosis (in scallops)
4. Infection with *Xenohaliotis californiensis*	
1.3 CRUSTACEAN DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Taura syndrome	1. Monodon slow growth syndrome
2. White spot disease	2. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)
3. Yellowhead disease	
4. Infectious hypodermal and haematopoietic necrosis	3. Acute hepatopancreatic necrosis syndrome (AHPNS)
5. Infectious myonecrosis	
6. White tail disease (MrNV)	
7. Necrotising hepatopancreatitis	
1.4 AMPHIBIAN DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with Ranavirus	
2. Infection with *Bachtracochytrium dendrobatidis*	
2. DISEASES PRESUMED EXOTIC TO THE REGION	
2.1 Finfish	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infectious salmon anaemia	1. Channel catfish virus disease
2. Infection with Gyrodactylus salaris	
2.2 Molluscs	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with *Bonamia ostreae*	
2. Infection with *Marteilia refringens*	
3. Infection with *Perkinsus marinus*	
2.3 Crustaceans	
OIE-listed diseases	**Non OIE-listed diseases**
1. Crayfish plague (*Aphanomyces astaci*)	

Recent Aquatic Animal Health Related Publications

OIE Aquatic Animal Health Code, 15th Edition, 2012. The OIE Aquatic Animal Health Code (the Aquatic Code) sets out standards for the improvement of aquatic animal health and welfare and veterinary public health worldwide, including through standards for safe international trade in aquatic animals (amphibians, crustaceans, fish and molluscs) and their products. The health measures in the Aquatic Code should be used by the veterinary authorities of importing and exporting countries to provide for early detection, reporting and control of agents pathogenic to aquatic animals and, in the case of zoonotic diseases, for humans, and to prevent their transfer via international trade in aquatic animals and aquatic animal products, while avoiding unjustified sanitary barriers to trade.The health measures in the Aquatic Code have been formally adopted by the World Assembly of OIE Delegates, which constitutes the organisation's highest decision-making body. This 15th edition incorporates modifications to the Aquatic Code agreed at the 80th General Session in May 2012.The 2012 edition includes revised information on the following subjects: glossary; notification of diseases and epidemiological information; criteria for listing aquatic animal diseases; diseases listed by the OIE; import risk analysis; welfare of farmed fish during transport; welfare aspects of stunning and killing of farmed fish for human consumption; and disinfection of salmonid eggs for infectious haematopoietic necrosis, infectious salmon anaemia and viral haemorrhagic septicaemia. This edition includes four new chapters on communication; monitoring of the quantities and usage patterns of antimicrobial agents used in aquatic animals; development and harmonisation of national antimicrobial resistance surveillance and monitoring programmes for aquatic animals; and killing of farmed fish for disease control purposes. The Aquatic Animal Health Code is available for free download http://www.oie.int/en/international-standard-setting/aquatic-code/access-online/

OIE Manual of Diagnostic Tests for Aquatic Animals, 2013. The purpose of this manual is to provide a uniform approach to the detection of the diseases listed in the OIE *Aquatic Animal Health Code*, so that the requirements for health certification in connection with trade in aquatic animals and aquatic animal products can be met. It includes bibliographical references and a list of the OIE Reference Laboratories for amphibian, crustacean, fish and mollusc diseases. The manual is available for free download at http://www.oie.int/en/international-standard-setting/aquatic-manual/access-online/.

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OIE, 2012. **Proceedings of OIE Global Conference on Aquatic Animal Health – Aquatic Animal Health Programmes: their Benefits for Global Food Security**. World Organisation for Animal Health, Paris, France. 205 pp.

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Leaño, E. M, and C.V. Mohan. 2012. **Early mortality syndrome threatens Asia's shrimp farms.** Global Aquaculture Advocate, July/August 2012: 38-39

Flegel, T.W., 2012. **Historic emergence, impact and current status of shrimp pathogens in Asia**. J. Invertebrate Pathology, 110:166-173.

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Instructions on how to fill in the
QUARTERLY AQUATIC ANIMAL DISEASE REPORT
(Revised during the Provisional Meeting of the AG[1], 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.

+?( ) These symbols mean that confirmed infection/infestation is limited to one of more zones of the country, but no clinical disease.

?( ) These symbols mean the presence of the disease suspected but not confirmed in a zone.

[1] Regional Advisory Group on Aquatic Animal Health (AG)

C. Levels of Diagnosis

LEVEL	SITE	ACTIVITY
I	Field	Observation of animal and the environment Clinical examination
II	Laboratory	Parasitology Bacteriology Mycology Histopathology
III	Laboratory	Virology Electron microscopy Molecular biology 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:

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Notes

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