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(Asia and Pacific Region)**

October-December 2002

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Foreword

In the light of recent changes to the OIE list of aquatic animal diseases and taking into account diseases of concern to the Asia-Pacific region, following changes have been made in the list of diseases for the quarterly aquatic animal disease (QAAD) reports pertaining to the Asia-Pacific region. Where those changes are editorial, or where diseases have been added by the OIE, those changes were incorporated into the QAAD form automatically. However, any suggested deletion of a disease by the OIE was carefully considered, as the disease may still be of relevance in the region

The following changes were made after detailed deliberations in the first meeting of the Asia Regional Advisory Group (AG) on Aquatic Animal Health held at the NACA Headquarters, Bangkok, Thailand from 6th-8th November 2002. The revised QAAD will be effective from 2003 for the reporting quarter beginning January-March 2003.

- OIE has removed Oyster velar disease and Baculoviral midgut gland necrosis from the international list. The regional advisory group (AG) on aquatic animal health decided to follow the OIE in removing **Oyster velar disease**, but **Baculoviral midgut gland necrosis** will remain on the QAAD list.
- **Viral haemorrhagic septicaemia** and **MSX disease** (*Haplosporidium nelsoni*) have both been reported in the region and in the revised format these two diseases have been moved from the QAAD section “Diseases presumed exotic to the region, but notifiable to the OIE” to “Diseases prevalent in some parts of the region”.
- The pattern of the recent epidemic in koi carp in Indonesia is consistent with that of an infectious disease, but there is as yet no definitive aetiological diagnosis. The group decided to list “**Koi mass mortality**” under “Unknown diseases of serious nature” to assist in the collation of data.
- **Akoya oyster disease**: this disease is not currently considered by the OIE for international listing, amongst other issues, because its aetiology is not yet well described, but the disease is of concern in the region. The group decided to list this disease under “Unknown diseases of serious nature” to assist in the collation of data.
- Similarly, the mollusc pathogen *Marteilioides chungmuensis* is recommended for listing under section “Diseases prevalent in some parts of the region” of the QAAD.
- **Grouper iridoviral diseases**: these are not currently considered by the OIE for international listing, but they are of concern in the region. The group decided to list these diseases under “Any other diseases of importance” to assist in the collection of occurrence data.
- **Epitheliocystis**: the group noted the occurrence of this rickettsial disease in the region and decided to add it next to Piscirickettsiosis under “Any other diseases of importance” to assist in the collection of occurrence data.

Reports Received by the NACA Secretariat

Country: **Australia**Period: **October-December 2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	-(2001)	-(2001)	-(2001)		1
2. Infectious haematopoietic necrosis*	0000	0000	0000		
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000		
4. Infectious pancreatic necrosis	0000	0000	0000		
5. Viral encephalopathy and retinopathy	-(2002)	-(2002)	-(2002)		2
6. Epizootic ulcerative syndrome (EUS)	-(2002)	+	+	III	3
7. Bacterial kidney disease	0000	0000	0000		
8. Red sea bream iridoviral disease	0000	0000	0000		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	- (2000)/0 000	- (2000)/000 0	- (2000)/000 0		4
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000/- (2002)	0000/- (2002)	0000/- (2002)		5
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000/ +	0000/- (2002)	0000/- (2002)	II	6
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	0000/ +	0000/ +	0000/ +	I	7
Crustacean disease					
1. Yellowhead disease*	0000	0000	0000		
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	0000	0000	0000		
4. Baculoviral midgut gland necrosis	0000	0000	0000		
5. Gill associated virus (GAV)	***	***	***		8
6. Spawner-isolated mortality virus disease	-(?)	-(?)	-(?)		9
7. Taura syndrome*	0000	0000	0000		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000		
2. Viral haemorrhagic septicaemia*	0000	0000	0000		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	0000/00 00	0000/0000	0000/0000		
Any other diseases of importance ^{b/}					
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+(0) Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Epizootic haematopoietic necrosis virus was not reported this period despite passive surveillance, but is known to have occurred in Victoria (last year 2001), New South Wales (last year 2000) and South Australia (last year 1992). Targeted active surveillance and never reported in Tasmania. Passive surveillance and never reported in Northern Territory, Queensland or Western Australia. Annual occurrence of the disease in the Australian Capital Territory, but no laboratory confirmation.
2	Viral encephalopathy and retinopathy was not reported from the Northern Territory this period despite targeted active surveillance, or from Queensland despite passive surveillance (last occurred earlier in 2002 in both jurisdictions). Not reported from Tasmania this period despite active surveillance (last year 2000) and South Australia (last year 1998). Never reported from New South Wales, Victoria or Western Australia despite passive surveillance. No information available in the Australian Capital Territory.
3	Epizootic ulcerative syndrome was reported from Western Australia in November 2002 in a shipment of Kissing Gourami (<i>Helostoma temmincki</i>) intercepted at the Western Australian border. The shipment was destroyed. EUS was also detected by passive surveillance in December 2002 in a single rainbow trout (<i>Oncorhynchus mykiss</i>) and black bream (<i>Acanthopagrus berda</i>). EUS was not reported during this period but is known to have occurred earlier in 2002 in Victoria and New South Wales (active surveillance) and Queensland (passive surveillance). Not reported during this quarter from the Northern Territory (despite passive surveillance), but known to have occurred earlier in 2001. Passive surveillance and never reported in South Australia and Tasmania. No information available in the Australian Capital Territory.
4	<i>Bonamia species</i> : Not reported during this period despite passive surveillance, but known to have occurred in Western Australia (last year 2000), Tasmania (last year 1999) and Victoria (last year 1993). Now regarded as enzootic in Western Australia. Never reported in South Australia despite targeted active surveillance. Passive surveillance and never reported in New South Wales, Northern Territory and Queensland. No information available in the Australian Capital Territory (no marine water responsibility). <i>Bonamia ostreae</i> : Never reported in South Australia despite targeted active surveillance. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, Tasmania, Victoria and Western Australia. No information available in the Australian Capital Territory (no marine water responsibility).
5	<i>Marteilia refringens</i> : Targeted active surveillance and never reported in South Australia. Active surveillance and never reported in Tasmania. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, Victoria and Western Australia. No information available in the Australian Capital Territory (no marine water responsibility). <i>Marteilia sydneyi</i> : Considered enzootic in Queensland, but lack of diagnostic submissions. Not reported this period despite passive surveillance from New South Wales (but believed to be widespread following survey work conducted in the 2nd quarter of 2002), or Western Australia (last year 1994). Targeted active surveillance and never reported in South Australia. Active surveillance and never reported in Tasmania. Passive surveillance and never reported in the Northern Territory and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).
6	<i>Mikrocytos mackini</i> : Targeted active surveillance and never reported in South Australia. Active surveillance and never reported in Tasmania. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, Victoria and Western Australia. No information available in the Australian Capital Territory (no marine water

	Australia. No information available in the Australian Capital Territory (no marine water responsibility). <i>Mikrocytos roughleyi</i> : Reported from New South Wales in October 2002 (diagnosed by histology in Sydney rock oysters [<i>Saccostrea glomerata</i>] by passive surveillance). Not reported during this period (passive surveillance) but known to have occurred in Western Australia (last year 1996). Considered enzootic in Queensland but lack of diagnostic submissions. Never reported in South Australia despite targeted active surveillance. Active surveillance and never reported in Tasmania. Passive surveillance and never reported in Northern Territory and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).
7	<i>Perkinsus marinus</i> : Never reported from South Australia despite active targeted surveillance. Active surveillance and never reported in Tasmania. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, Victoria and Western Australia. No information available for the Australian Capital Territory (no marine water responsibility). <i>Perkinsus olseni</i> : Reported from South Australia in October, November and December 2002 in wild, but not in cultured, <i>Haliotis</i> spp. (targeted active surveillance). Not reported this quarter from New South Wales, despite passive surveillance (last occurred 2nd quarter 2002), or Western Australia (last year reported 1995). Active surveillance and never reported in Tasmania. Passive surveillance and never reported in Northern Territory, Queensland and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).
8	Gill-associated virus (GAV) can be present as a chronic infection without clinical disease and appears, from limited monitoring using a PCR detection test, to be a high prevalence infection in wild <i>Penaeus monodon</i> stocks off the east coast of Queensland. GAV is considered one of the viruses associated with Mid-Crop Mortality Syndrome and MCMS-like syndromes seen in farmed prawns. The lack of a clear case definition and an apparent role for mixed virus infections, makes reporting of conclusive, GAV-specific epizootics impossible.
9	A clear diagnosis of Mid-Crop Mortality Syndrome and MCMS-like syndromes remains problematic. Three different viruses have now been associated with farm mortalities including Spawner-isolated Mortality Virus. The lack of a clear case definition, of readily available detection tests and an apparent role for mixed virus infections, make any conclusion about the incidence of SMV-related epizootics impossible.

2. New aquatic animal health regulations introduced within past six months (with effective date):
AQUAPLAN – A Five Year Review

In 1997, the Australian Commonwealth and States and Territories established the Fish Health Management Committee (FHMC) with the mandate to develop a comprehensive aquatic animal health plan for Australia, and to address management procedures for aquatic animal disease emergencies in particular. The resulting plan was released in 1998 as *AQUAPLAN - Australia's National Strategic Plan for Aquatic Animal Health 1998-2003*. For the past five years, members of FHMC and their supporting agencies and industries have implemented a wide range of priority AQUAPLAN projects and fulfilled FHMC's original terms of reference. A consultative review process conducted over the calendar year 2002 has led to the restructuring of FHMC as the Aquatic Animal Health Committee (AAHC) which will commence operations in early 2003. To facilitate the hand-over from FHMC to AAHC, a comprehensive review of progress towards implementation of AQUAPLAN programs and projects was conducted and has been published as *AQUAPLAN - A Five Year Review*. This publication details the progress made against approximately 100 discrete projects; it can be downloaded from the AFFA website <<http://www.affa.gov.au>>.

Country: **Bangladesh**Period: **October-December 2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	***	***	***		
2. Infectious haematopoietic necrosis*	***	***	***		
3. <i>Oncorhynchus masou</i> virus disease*	***	***	***		
4. Infectious pancreatic necrosis	***	***	***		
5. Viral encephalopathy and retinopathy	***	***	***		
6. Epizootic ulcerative syndrome (EUS)	+	+	+	I	1
7. Bacterial kidney disease	***	***	***		
8. Red sea bream iridoviral disease	***	***	***		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***	***	***		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***	***	***		
Crustacean disease					
1. Yellowhead disease*	***	***	***		
2. Infectious hypodermal and haematopoietic necrosis	***	***	***		
3. White spot disease*	***	***	***		
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	***	***	***		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	***	***	***		
2. Viral haemorrhagic septicaemia*	***	***	***		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	***	***	***		
Any other diseases of importance ^{b/}	+	+	+	I	2
Unknown diseases of serious nature					
<p>b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region:</p> <p>Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease</p> <p>Molluscs: Iridovirus (Oyster velar disease)</p> <p>Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis</p>					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Outbreak of EUS in the Indian major carp, Thai sarputi and Silver carp in Mymensingh region (central part of the country). Open water fishes were mainly affected.
2	<i>Pangasius sutchi</i> were seriously affected with bacteria and saprolegnia-type fungus in the fish farms of Mymensingh area.

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

Not applicable

Country: **Hong Kong, China**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000	II	
2. Infectious haematopoietic necrosis*	0000	0000	0000	III	
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000	II	
4. Infectious pancreatic necrosis	0000	0000	0000	III	
5. Viral encephalopathy and retinopathy	+? 2001			III	1
6. Epizootic ulcerative syndrome (EUS)	0000	0000	0000	II	
7. Bacterial kidney disease	0000	0000	0000	III	
8. Red sea bream iridoviral disease	0000	0000	0000	III	
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000	II	
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000	0000	0000	II	
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000	0000	0000	II	
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	0000	0000	0000	II	
Crustacean disease					
1. Yellowhead disease*	0000	0000	0000	III	
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	II	
3. White spot disease*	0000	0000	0000	III	
4. Baculoviral midgut gland necrosis	0000	0000	0000	II	
5. Gill associated virus (GAV)	0000	0000	0000	II	
6. Spawner-isolated mortality virus disease	0000	0000	0000	II	
7. Taura syndrome*	0000	0000	0000	III	
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000	III	
2. Viral haemorrhagic septicaemia*	0000	0000	0000	III	
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	0000	0000	0000	II	
Any other diseases of importance ^{b/}					
Lanceolatus grouper iridoviral disease	(2002)			III	2
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	No further Nodavirus isolations or disease for the reporting period
2	<p>Mortalities of 20% in 300 fish and 50% in 2500 fish of imported marine <i>Epinephelus lanceolatus</i> (giant grouper) occurred in 2 farm locations in August 2002. Affected fish were 700-745 grams weight. Pathology revealed splenomegaly and patchy liver discoloration. Histopathology revealed necrosis of kidney and spleen with the presence of hypertrophic and basophilic cells. Liver, thymus and heart also contained these abnormal cells.</p> <p>DNA samples were sent to Dr.Motohiko Sano at the National Research Institute of Aquaculture, Japan (the OIE Reference Laboratory): for RSIV confirmation testing. Results by PCR and immunohistochemistry were positive for RSIV.</p> <p>In house PCR testing using primer set RSIV 2, 5 (Oshima et al 1998) produced the same positive results. Electronmicroscopic studies on spleen, kidney and liver tissue revealed cytoplasmic icosahedral viral particles of 121-143 nm diameter with a spherical nucleoprotein core, similar to iridovirus. DNA sequencing studies are required to determine genetic homology to RSIV. "Lanceolatus grouper iridoviral disease" is a new name we propose for this disease.</p> <p>Other <i>Epinephelus</i> spp in the affected farms were not infected with the virus. There were no reports of significant disease in local seabream fish at the same time.</p>

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

Country: **Indonesia**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases	October	November	December		
1. Epizootic haematopoietic necrosis*	***	***	***		
2. Infectious haematopoietic necrosis*	***	***	***		
3. <i>Oncorhynchus masou</i> virus disease*	***	***	***		
4. Infectious pancreatic necrosis	***	***	***		
5. Viral encephalopathy and retinopathy	+	+	+	III	1
6. Epizootic ulcerative syndrome (EUS)	+()	+()	+()	I	2
7. Bacterial kidney disease	***	***	***		
8. Red sea bream iridoviral disease	***	***	***		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***/**	***/**	***/**		
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***/**	***/**	***/**		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***/**	***/**	***/**		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***/**	***/**	***/**		
Crustacean disease					
1. Yellowhead disease*	***	***	***		
2. Infectious hypodermal and haematopoietic necrosis	-	-	-		
3. White spot disease*	+	+	+	III	3
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	+	+	+	III	4
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	***	***	***		
2. Viral haemorrhagic septicaemia*	***	***	***		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	***/**	***/**	***/**		
Any other diseases of importance ^{b/}					
Suspected Koi herpesvirus (KHV)	+	+	+	III	5
Unknown diseases of serious nature					
Periodic mass mortality in giant gouramy (<i>Osphronemus gouramy</i>)	+	+	+	I	6
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Viral encephalopathy and retinopathy, well known in Indonesia as Viral nervous necrosis (VNN), is occurred Bali islands and Lampung province, Sumatera.
2	Based on typical clinical signs of EUS, the disease was reported to occur in wild fishes in East Kalimantan and South Sumatera. The disease is also reported in culture farm, but the incidence is quite low.
3	Based on the clinical signs, the diseases outbreak occurred in most of shrimp farms in Indonesia. <i>Penaeus monodon</i> samples sent by shrimp farmers were tested using histopathology and PCR techniques.
4	In response to Dr. Lightner's letter to OIE pertaining 'confirmation of TSV in Indonesia', we conducted active surveillance in Java island and Lampung province, Sumatera. Despite the active surveillance, TSV only affected <i>Penaeus vannamei</i> in East Java
5	Mass mortality in koi and common carp (<i>Cyprinus carpio</i>) suspected to be associated with KHV is still occurring in Java and Bali islands. However, the mortality rate is tending to decrease.
6	Periodic mass mortality in giant gouramy (<i>Osphronemus gouramy</i>) was first reported in 2001 in Purbalingga, Banjarnegara, Banyumas and Yogyakarta, Central Java. Since then the outbreaks are reported in other area such as Bogor, West Java and Blitar, East Java. Although the outbreak mainly occurs during dry season (June to September), but it is also reported to be occurred in March to May.

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

- 1) The Director-General of Aquaculture requested technical assistance on the investigation of serious disease outbreak in koi and common carp. An Emergency Disease Control Task Force on a Serious Disease of Koi and Common Carps in Indonesia was then organized by NACA in cooperation with ACIAR and AAHRI (DGA's letter dated 20 June 2002). The task force conducted preliminary investigation in Indonesia in July 2002.
- 2) Ministerial Decree No. 28/2002 officially declared Java Island as an isolated area of the disease and moving carp and koi from Java Island to other islands is now strictly prohibited. In addition, importation of common carp and koi into this country was temporarily not permitted. (Effective date: 2 July 2002).
- 3) Directorate General Decree No. 3750/2002 regarding national task force on control of disease outbreak in freshwater fish (Effective date: 20 August 2002).
- 4) In August 2002, Directorate General of Aquaculture requested emergency technical assistance from FAO which approved a project entitled "Health Management in Freshwater Aquaculture" to be implemented from November 2002 to April 2004 under FAO's Technical Cooperation Programme.
- 5) Ministerial Decree No.40/2002. This second Ministerial decree associated with serious disease outbreak in koi and carp declared that Java and Bali are pronounced as infected areas and movement of live-fish from the Islands to other [islands] within the country should follow quarantine checks for KHV. Importing koi and common carp is permitted only from free KHV country. (Effective date: 3 October 2002).

Country: **Japan**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
Diseases prevalent in some parts of the region	October	November	December		
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000		
2. Infectious haematopoietic necrosis*	+	+	+		
3. <i>Oncorhynchus masou</i> virus disease*	+	+	+		
4. Infectious pancreatic necrosis	+	+	+		
5. Viral encephalopathy and retinopathy	+	+	+		
6. Epizootic ulcerative syndrome (EUS)	-	-	-		
7. Bacterial kidney disease	+	+	-		
8. Red sea bream iridoviral disease	+	+	+		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000		
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000	0000	0000		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000	0000	0000		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	0000	0000	0000		
Crustacean disease					
1. Yellowhead disease*	0000	0000	0000		
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	-	-	-		
4. Baculoviral midgut gland necrosis	(1992)	(1992)	(1992)		
5. Gill associated virus (GAV)	0000	0000	0000		
6. Spawner-isolated mortality virus disease	0000	0000	0000		
7. Taura syndrome*	0000	0000	0000		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000		
2. Viral haemorrhagic septicaemia*	-	-	-		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*					1
Any other diseases of importance ^{b/}					
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	<i>Haplosporidium nelsoni</i> was detected at 2% positive in Pacific oyster (<i>Crassostrea gigas</i>) spats collected from the northeastern part of Japan (see OIE Disease information on the 5 October 2001 on the OIE internet homepage). However, mortality or disease of Pacific oyster associated with <i>H.nelsoni</i> has not been reported at all. Therefore, the symbol is not described at the portion of Haplosporidiosis in this report form.

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

Country: **Lao PDR**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
Diseases prevalent in some parts of the region	October	November	December		
Finfish diseases					
1. Epizootic haematopoietic necrosis*	***	***	***		
2. Infectious haematopoietic necrosis*	***	***	***		
3. <i>Oncorhynchus masou</i> virus disease*	***	***	***		
4. Infectious pancreatic necrosis	***	***	***		
5. Viral encephalopathy and retinopathy	***	***	***		
6. Epizootic ulcerative syndrome (EUS)	***	***	***		
7. Bacterial kidney disease	***	***	***		
8. Red sea bream iridoviral disease	***	***	***		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***	***	***		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***	***	***		
Crustacean disease					
1. Yellowhead disease*	***	***	***		
2. Infectious hypodermal and haematopoietic necrosis	***	***	***		
3. White spot disease*	***	***	***		
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	***	***	***		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	***	***	***		
2. Viral haemorrhagic septicaemia*	***	***	***		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	***	***	***		
Any other diseases of importance ^{b/}					
<i>Aeromonas</i> spp			+	II	
<i>Enterobacter cloacae</i>			+	II	
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments: Nil

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

Country: **Malaysia**Period: **October-December2002**

Item	Disease status ^u			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000		
2. Infectious haematopoietic necrosis*	0000	0000	0000		
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000		
4. Infectious pancreatic necrosis	0000	0000	0000		
5. Viral encephalopathy and retinopathy	?	?	?	I	1
6. Epizootic ulcerative syndrome (EUS)	-	-	-		
7. Bacterial kidney disease	0000	0000	0000		
8. Red sea bream iridoviral disease	0000	0000	0000		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***	***	***		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***	***	***		
Crustacean disease					
1. Yellowhead disease*	-	-	-		
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	0000	0000	0000		
4. Baculoviral midgut gland necrosis	0000	0000	0000		
5. Gill associated virus (GAV)	0000	0000	0000		
6. Spawner-isolated mortality virus disease	0000	0000	0000		
7. Taura syndrome*	0000	0000	0000		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000		
2. Viral haemorrhagic septicaemia*	0000	0000	0000		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	***	***	***		
Any other diseases of importance ^v					
Unknown diseases of serious nature	***	***	***		
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Cases were suspected by reporting officer in marine cage culture in Langkawi, Kedha but presence not confirmed in the laboratory. Affected species are the mangrove snapper (<i>Lutjanus argentimaculatus</i>) and common grouper.

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

Country: Myanmar

Period: October-December2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases	October	November	December		
1. Epizootic haematopoietic necrosis*	***	***	***		
2. Infectious haematopoietic necrosis*	***	***	***		
3. <i>Oncorhynchus masou</i> virus disease*	***	***	***		
4. Infectious pancreatic necrosis	***	***	***		
5. Viral encephalopathy and retinopathy	***	***	***		
6. Epizootic ulcerative syndrome (EUS)	***	***	***		
7. Bacterial kidney disease	***	***	***		
8. Red sea bream iridoviral disease	***	***	***		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000		
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000	0000	0000		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000	0000	0000		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	0000	0000	0000		
Crustacean disease					
1. Yellowhead disease*	-	-	-		
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	+()	+()	+()	III	1
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	0000	0000	0000		
6. Spawner-isolated mortality virus disease	0000	0000	0000		
7. Taura syndrome*	0000	0000	0000		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	-	-	-		
2. Viral haemorrhagic septicaemia*	-	-	-		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	0000	0000	0000		
Any other diseases of importance ^{b/}					
Fin fish Gyrodactylosis					
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	PCR amplification results from Aquatic Animal Health Laboratory.

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

Country: **Nepal**

Period:

October-December2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases	October	November	December		
1. Epizootic haematopoietic necrosis*	***	***	***		
2. Infectious haematopoietic necrosis*	***	***	***		
3. <i>Oncorhynchus masou</i> virus disease*	***	***	***		
4. Infectious pancreatic necrosis	***	***	***		
5. Viral encephalopathy and retinopathy	***	***	***		
6. Epizootic ulcerative syndrome (EUS)	+	+	+	I	I
7. Bacterial kidney disease	***	***	***		
8. Red sea bream iridoviral disease	***	***	***		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***	***	***		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***	***	***		
Crustacean disease					
1. Yellowhead disease*	***	***	***		
2. Infectious hypodermal and haematopoietic necrosis	***	***	***		
3. White spot disease*	***	***	***		
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	***	***	***		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	***	***	***		
2. Viral haemorrhagic septicaemia*	***	***	***		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	***	***	***		
Any other diseases of importance ^{b/}					
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	During this period EUS was reported from eastern and central Terai districts in farm reared <i>Labeo rohita</i> (rohu) and <i>Cirrhina mrigala</i> (mrigal). EUS also reported from these districts in <i>Channa</i> , <i>Puntius</i> spp. Lime at the rate of 300-500 kg/ha or Cifax at the rate of 1 litre/ha was treated for the control of EUS.

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

Country: **Philippines**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	***	***	***		
2. Infectious haematopoietic necrosis*	***	***	***		
3. <i>Oncorhynchus masou</i> virus disease*	***	***	***		
4. Infectious pancreatic necrosis	***	***	***		
5. Viral encephalopathy and retinopathy	+	-	-	III	1
6. Epizootic ulcerative syndrome (EUS)	+	-	-	II	2
7. Bacterial kidney disease	***	***	***		
8. Red sea bream iridoviral disease	***	***	***		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***	***	***		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***	***	***		
Crustacean disease					
1. Yellowhead disease*	***	***	***		
2. Infectious hypodermal and haematopoietic necrosis	***	***	***		
3. White spot disease*	-	+	-	III	3
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	***	***	***		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	***	***	***		
2. Viral haemorrhagic septicaemia*	***	***	***		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	***	***	***		
Any other diseases of importance ^{b/}					
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Grouper (<i>Epinephelus coioides</i>) of different age (20,30,35,60 and 64 days of culture) from Tigbauan, Iloilo, examined during the month of October 2002 produced positive results for VER by RT-PCR. Examination conducted by SEAFDEC-AQD Fish Health Laboratory Not reported (passive) during the month of November and December 2002
2	<i>Clarius gariepinus</i> from grow-out pond in Sta.Barbara, Iloilo examined through histopathology showed mycotic granuloma. Examination conducted by the SEAFDEC-AQD Fish Health Lab. No reported case (passive) during the month of November and December 2002.
3	<p>Samples of <i>Penaeus monodon</i> examined during the month of October 2002 produced negative results for WSSV using PCR technique. Examination conducted by UPLB-Biotech</p> <p><i>P.monodon</i> (60-70 days of culture) from the grow-out ponds in Negros Occidental (Bago, Pulupandan) experienced massive mortalities (month of November 2002) and showed white spots in the carapace. Examination of shrimp samples showed positive results for WSSV using PCR technique. (Reported by NPPMCI and SEAFDEC-AQD-FHS)</p> <p><i>P.monodon</i> juveniles from grow out pond in Capiz and Bulacan examined during the month of November 2002 showed positive results for WSSV using PCR technique. (Examination conductedn by UPLB-Biotech and SEAFDEC_AQD-FHA)</p> <p>Confiscated <i>P.vannamei</i> (illegally imported) at the Manila International Airport (November 2002) produced negative results for WSSV using PCR technique</p> <p>No reported case (passive) during the month of December 2002</p>

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

Country: **Republic of Korea**

Period:

October-December 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000		
2. Infectious haematopoietic necrosis*	-	-	-		
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000		
4. Infectious pancreatic necrosis	-	-	-		
5. Viral encephalopathy and retinopathy	-	-	-	III	
6. Epizootic ulcerative syndrome (EUS)	0000	0000	0000		
7. Bacterial kidney disease	0000	0000	0000		
8. Red sea bream iridoviral disease	-	-	-	III	
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000	III	
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000	0000	0000	III	
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000	0000	0000	III	
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	-	-	-	III	
Crustacean disease					
1. Yellowhead disease*	0000	0000	0000		
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	+	-	-	III	
4. Baculoviral midgut gland necrosis	0000	0000	0000		
5. Gill associated virus (GAV)	0000	0000	0000		
6. Spawner-isolated mortality virus disease	0000	0000	0000		
7. Taura syndrome*	0000	0000	0000		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000		
2. Viral haemorrhagic septicaemia*	0000	0000	0000		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	0000	0000	0000		
Any other diseases of importance ^{b/}					
Unknown diseases of serious nature					
<p>b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region:</p> <p>Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease</p> <p>Molluscs: Iridovirus (Oyster velar disease)</p> <p>Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis</p>					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments: Nil

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

Country: **Singapore**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000		
2. Infectious haematopoietic necrosis*	0000	0000	0000		
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000		
4. Infectious pancreatic necrosis	0000	0000	0000		
5. Viral encephalopathy and retinopathy	-(2000)	+	-(2000)	II	1
6. Epizootic ulcerative syndrome (EUS)	0000	0000	0000		
7. Bacterial kidney disease	0000	0000	0000		
8. Red sea bream iridoviral disease	0000	0000	0000		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteilioidosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***	***	***		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***	***	***		
Crustacean disease					
1. Yellowhead disease*	***	***	***		
2. Infectious hypodermal and haematopoietic necrosis	***	***	***		
3. White spot disease*	-	-	-		
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	***	***	***		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000		
2. Viral haemorrhagic septicaemia*	0000	0000	0000		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*					
Any other diseases of importance ^{b/}					
	Nil	Nil	Nil		
Unknown diseases of serious nature					
	Nil	Nil	Nil		
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Histopathological evidence of viral encephalopathy and retinopathy was observed in a batch (3000 pcs) of 7g giant grouper (<i>Epinephelus lanceolatus</i>) fingerlings imported from Taiwan for grow-out at one local farm. These fingerlings subsequently suffered 90% mortality.

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

Country: **Sri Lanka**Period: **October-December2002**

Item	Disease status ⁴			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000		
2. Infectious haematopoietic necrosis*	0000	0000	0000		
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000		
4. Infectious pancreatic necrosis	0000	0000	0000		
5. Viral encephalopathy and retinopathy	0000	0000	0000		
6. Epizootic ulcerative syndrome (EUS)	?	?	?	I	1
7. Bacterial kidney disease	0000	0000	0000		
8. Red sea bream iridoviral disease	0000	0000	0000		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000		
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000	0000	0000		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000	0000	0000		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	0000	0000	0000		
Crustacean disease					
1. Yellowhead disease*	?	?	?	I	2
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	+	+	+	III	3
4. Baculoviral midgut gland necrosis	0000	0000	0000		
5. Gill associated virus (GAV)	0000	0000	0000		
6. Spawner-isolated mortality virus disease	0000	0000	0000		
7. Taura syndrome*	0000	0000	0000		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000		
2. Viral haemorrhagic septicaemia*	0000	0000	0000		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	0000	0000	0000		
Any other diseases of importance ⁵					
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Clear visual signs were not reported
2	No symptoms were observed
3	Samples of <i>Penaeus monodon</i> taken from farms and hatcheries showed positive results when tested with PCR amplification for WSSV. Intensity of occurrence was higher than the previous quarter and limited to few locations

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

Country: **Thailand**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000	III	1
2. Infectious haematopoietic necrosis*	0000	0000	0000	III	
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000	III	
4. Infectious pancreatic necrosis	(1985)	(1985)	(1985)	III	
5. Viral encephalopathy and retinopathy	-	-	-	III	
6. Epizootic ulcerative syndrome (EUS)	-	-	?	II	2
7. Bacterial kidney disease	0000	0000	0000	II	
8. Red sea bream iridoviral disease	0000	0000	0000	III	
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	***	***	***		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	***	***	***		
Crustacean disease					
1. Yellowhead disease*	?	?	?	I	
2. Infectious hypodermal and haematopoietic necrosis	***	***	***		
3. White spot disease*	+	+	+	III	3
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	0000	0000	0000	III	4
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000	III	
2. Viral haemorrhagic septicaemia*	0000	0000	0000	III	
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	***	***	***		
Any other diseases of importance ^{b/}					
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	Many iridoviruses have been isolated from diseased fish and frog in Thailand. Nucleotide sequence analysis of PCR products of MCP and ATPase gene indicated that they are closer to <i>Rana tigrina</i> ranavirus that had been found in China PR than EHNV.
2	There was one EUS suspect case reported by fish farmer in December 2002. The diseased fish was snakehead fish, <i>Channa striata</i> , which raised in 25 m ² earthen pond. Mortality told was 10%. The disease control measures were given and the disease was limited to only one pond during this Quarterly Report.
3	A total of 4,093 tiger prawn samples cultured in 23 provinces had been sent to 11 PCR Laboratories of the Department of Fisheries. Most of the prawn samples were post-larvae stage, which were PCR-tested before stocking in culture ponds. 93 samples or 2.3% were recorded as PCR positive or carrying SEMBV gene.
4	43 Pacific white shrimp, <i>Penaeus vannamei</i> , brooders were sampled at the Aquatic Animal Quarantine, Bangkok Airport, and RT-PCR-tested for Taura syndrome virus (TSV) using a commercial kit. The RT-PCR results were negative. All brooders have been stocked in the registered hatcheries for further quarantine. Theirs seeds will be tested again for TSV-free before transfer in to grow-out ponds.

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

Country: **Vietnam**Period: **October-December2002**

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	October	November	December		
Diseases prevalent in some parts of the region					
Finfish diseases					
1. Epizootic haematopoietic necrosis*	0000	0000	0000		
2. Infectious haematopoietic necrosis*	0000	0000	0000		
3. <i>Oncorhynchus masou</i> virus disease*	0000	0000	0000		
4. Infectious pancreatic necrosis	***	***	***		
5. Viral encephalopathy and retinopathy	-	-	-		1
6. Epizootic ulcerative syndrome (EUS)	-	-	-		2
7. Bacterial kidney disease	0000	0000	0000		
8. Red sea bream iridoviral disease	0000	0000	0000		
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000		
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000	0000	0000		
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000	0000	0000		
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	0000	0000	0000		
Crustacean disease					
1. Yellowhead disease*	-	-	-		3
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	-	-	-		3
4. Baculoviral midgut gland necrosis	0000	0000	0000		
5. Gill associated virus (GAV)	0000	0000	0000		
6. Spawner-isolated mortality virus disease	0000	0000	0000		
7. Taura syndrome*	0000	0000	0000		
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000		
2. Viral haemorrhagic septicaemia*	0000	0000	0000		
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	0000	0000	0000		
Any other diseases of importance ^{b/}					
	-	-	-		3
	-	-	-		4
Unknown diseases of serious nature					
b/ In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region: Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Gyrodactylosis (<i>Gyrodactylus salaris</i>); Enteric septicaemia of catfish; White sturgeon iridoviral disease Molluscs: Iridovirus (Oyster velar disease) Crustaceans: Nuclear polyhedrosis baculovirus (<i>Baculovirus penaei</i>); Crayfish plague (<i>Aphanomyces astaci</i>); Necrotising hepatopancreatitis					

* OIE notifiable diseases

^a Please use the following symbols:

+ Disease reported or known to be present

+? Serological evidence and/or isolation of causative agent but no clinical diseases

? Suspected by reporting officer but presence not confirmed

+() Occurrence limited to certain zones

*** No information available

0000 Never reported

- Not reported (but disease is known to occur).

(year) year of last occurrence

1. Epidemiological comments:

Comment No.	
1	VNN was not reported during this period but known to occur during the last period; however only one affected specimen was found. The methods of diagnostic was histopathology.
2	Not reported during this period.
3	Not reported during this period due to not many activities in shrimp culture in this time of the year
4	Not reported during this period

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

Related Publications

Asia Diagnostic Guide to Aquatic Animal Diseases. 2001. Bondad-Reantaso, M.G., McGladdery, S.E., East, I. and Subasinghe, R.P. (eds). FAO Fisheries Technical Paper No. 402, Suppl. 2. Rome, FAO. 2001. 236 pp.

Manual of Procedures for the Implementation of the Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals. 2001. FAO/NACA. Fisheries Technical Paper, No. 402, Suppl. 1. FAO, Rome. 103 p.

DNA-based Molecular Diagnostic Techniques: Research Needs for Standardisation and Validation of the Detection of Aquatic Animal Pathogens and Diseases. 2000. (eds. P. Walker and R.P. Subasinghe). FAO Fisheries Technical Paper 395. Report and Proceedings of the Expert Workshop on DNA-based Molecular Diagnostic Techniques: Research Needs for Standardisation and Validation of the Detection of Aquatic Animal Pathogens and Diseases, Bangkok, Thailand, 7-9 February 1999.

Information from:

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Viale delle Terme di Caracalla
Rome 00100 Italy
E-mail: Rohana.Subasinghe@fao.org

APEC/AAHRI/FHS-AFS/NACA. 2001. Report and proceeding of APEC FWG 02/2000 "Development of a Regional Research Programme on Grouper Virus Transmission and Vaccine Development". M.G. Bondad-Reantaso, J. Humphrey, S. Kanchanakhan and S. Chinabut (eds).

Diagnostic Procedures for Finfish Diseases (by Kamonporn Tonguthai, Supranee Chinabut, Temdoug Somsiri, Pornlerd Chanratchakool, Somkiat Kanchanakhan)

Epizootic Ulcerative Syndrome (EUS) Handbooks. Two new EUS handbooks are available free of charge: (1) *Pathology and Histopathology of EUS* by S. Chinabut and R.J. Roberts; and (2) *EUS Technical Handbook* by J.H. Lilley, R.B. Callinan, S. Chinabut, S. Kanchanakhan, I.H. MacRae and M.J. Phillips.

Health Management in Shrimp Ponds. Third Edition (by P. Chanratchakool, JF Turnbull, S.J. Funge-Smith, I.H. MacRae and C Limsuwan).

Information from:

Project Manager
Southeast Asia Aquatic Disease Control Project (SEAADCP)
Aquatic Animal Health Research Institute (AAHRI)
Thailand's Department of Fisheries, Kasetsart University Campus, Jatujak, Bangkok 10900
E-mail: aahri@fisheries.go.th

APEC/FAO/NACA/SEMARNAP. 2001. Trans-Boundary aquatic animal pathogen transfer and the development of harmonised standards on aquaculture health management. Report of the Joint APEC/FAO/NACA/SEMARNAP Workshop, Puerto Vallarta, Jalisco, Mexico, 24-28 July 2000. Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand. 197 pp.

Primary Aquatic Animal Health Care in Rural, Small-Scale, Aquaculture Development: Report of an Asia Regional Scoping Workshop held in Dhaka, Bangladesh, 27th-30th September 1999. Department for International Development, Food and Agriculture Organization of the United Nations and the Network of Aquaculture Centres in Asia-Pacific. 36 pp.

CD-ROM on Diagnosis of Shrimp Diseases (by V. Alday de Graindorge and T.W. Flegel) This CD-Rom provides detailed information on the diagnosis of shrimp disease, with emphasis on *Peneaus monodon*.

Information from:

NACA Secretariat
E-mail: naca@enaca.org

OIE International Aquatic Animal Health Code. Fourth edition, 2001.

OIE Diagnostic Manual for Aquatic Animal Diseases. Fourth Edition. 2001

Risk Analysis in Aquatic Animal Health. 2001. Proceedings of an International Conference held in Paris, France, 8-10 February 2000 (C.J. Rogers, ed.).

Information from:

Office International des Epizooties
12, rue de Prony, 75017 Paris, France
Tel: 33-(0)1 44 15 18 88
Fax: 33-(0) 1 42 67 09 87
E-mail: oi@oi.int
Web: <http://www.oi.int>

Diseases in Penaeid Shrimps in the Philippines. Second Edition (2000). By C.R. Lavilla-Pitogo, G.D. Lio-Po, E.R. Cruz-Lacierda, E.V. Alapide-Tendencia and L.D. de la Pena

Use of Chemicals in Aquaculture in Asia. 2000. J.R. Arthur, C.R. Lavilla-Pitogo and R.P. Subasinghe (eds). Proceedings of the Meeting on the Use of Chemicals in Aquaculture in Asia, 20-22 May 1996, Tigbauan, Iloilo, Philippines.

Diseases of Penaeid Shrimps in the Philippines. 2000. by C.R. Lavilla-Pitogo, G.D. Lio-Po, E.R. Cruz-Lacierda, E.V. Alapide-Tendencia and L.D. de la Pena. Aquaculture Extension Manual No. 16.

Health Management in Aquaculture. 2001. G.D. Lio-Po, C.R. Lavilla, E.R. Cruz-Lacierda (eds).

Husbandry and Health Management of Grouper. 2001. APEC/SEAFDEC. APEC, Singapore and SEAFDEC, Iloilo, Philippines. 94 p.

Information from:

Training and Information Division
SEAFDEC Aquaculture Department
5021 Tigbauan, Iloilo, Philippines
Fax: (63-33) 335 1008 336 2891
E-mail: aqdchief@aqd.seafdec.org.ph

Reference PCR Protocols for Detection of White Spot Syndrome Virus (WSSV) in Shrimp. Shrimp Biotechnology Service Laboratory. Vol. 1, No. 1, March 2001

Information from:

Shrimp Biotechnology Service Laboratory
73/1 Rama 6 Rd., Rajdhewee, Bangkok 10400
Tel: (662) 644-8150
Fax: (662) 644-8107

Manual for Fish Disease Diagnosis - II: Marine Fish and Crustacean Diseases in Indonesia (2001) by Isti Koesharyani, Des Roza, Ketut Mahardika, Fris Johnny, Zafran and Kei Yuasa, edited by K. Sugama, K. Hatai, and T Nakai

Information from:

Gondol Research Station for Coastal Fisheries
P.O. Box 140 Singaraja, Bali, Indonesia
Tel: (62) 362 92278
Fax: (62) 362 92272

AQUAPLAN Zoning Policy Guidelines

Information from:

Aquatic Animal Health
Office of the Chief Veterinary Officer
Product Integrity, Animal and Plant Health
Agriculture, Fisheries and Forestry
GPO Box 858
Canberra, ACT 2601

List of National Coordinators*

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

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Iran	<p>Dr. Reza Pourgholam National Coordinator (from November 2000) Veterinary Organization Ministry of Jihad – E – Sazandegi Vali-ASR Ave S.J.Asad Abadi St PO Box 14155 – 6349 Tehran, Iran Tel: 8857007-8857193 Fax: 8857252</p> <p>Dr. A.E. Maghsodi Fard (Disease Reporting Officer) Manager Director of Aquatic Animal Diseases Department</p>
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List of Diseases in the Asia-Pacific

Quarterly Aquatic Animal Disease Reports (beginning 2002)

Diseases prevalent in some parts of the region

- Finfish Diseases: Epizootic haematopoietic necrosis*
Infectious haematopoietic necrosis*
Oncorhynchus masou virus disease*
Infectious pancreatic necrosis*
Viral encephalopathy and retinopathy*
Epizootic ulcerative syndrome (EUS)
Bacterial kidney disease
Red sea bream iridoviral disease
- Mollusc Diseases: Bonamiosis (*Bonamia* sp., *B. ostreae*)*
Marteiliosis (*Marteilia refringens*, *M. sydneyi*)*
Microcytosis (*Mikrocytos mackini*, *M. roughleyi*)*
Perkinsosis (*Perkinsus marinus*, *P. olseni*)*
- Crustacean Disease: Yellowhead disease*
Infectious hypodermal and haematopoietic necrosis (IHHN)
White spot disease*
Baculoviral midgut gland necrosis
Gill associated virus (GAV)
Spawner mortality syndrome ('Midcrop mortality syndrome')
Taura syndrome*

Diseases presumed exotic to the region, but reportable to OIE

- Finfish Diseases: Spring viremia of carp*
Viral haemorrhagic septicaemia*
- Mollusc Diseases: Haplosporidiosis (*Haplosporidium costale*, *H. nelsoni*)*

Any other diseases of importance: In particular, these include the following diseases so far presumed, but not proven, to be exotic to this region:

- Finfish Diseases: Channel catfish virus disease
Infectious salmon anaemia
Piscirickettsiosis
Gyrodactylosis (*Gyrodactylus salaris*)
Enteric septicaemia of catfish
White sturgeon iridoviral disease
- Mollusc Diseases: Iridovirus (Oyster velar disease)
- Crustacean Diseases: Nuclear polyhedrosis baculovirosis (*Baculovirus penaei*)
Crayfish plague (*Aphanomyces astaci*)
Necrotising hepatopancreatitis

*OIE notifiable diseases

New Instructions on how to fill in the QUARTERLY AQUATIC ANIMAL DISEASE REPORT

(Revised during the Provisional Meeting of the AG¹, 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 occurrence of a disease in question is sporadic but it is known to be present. However the occurrence is relatively rare. |
| +? | 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. |

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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