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

April-June 2002

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Reports Received by the NACA Secretariat

Country: Australia

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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)	III	2
6. Epizootic ulcerative syndrome (EUS)	-(2002)	+	+	II	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)/0000	-(2000)/0000	-(2000)/0000		4
2. Marteiliiosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000/+	0000/+	0000/-(2002)	II	5
3. Mikrocystosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000/-(1996)	0000/-(1996)	0000/-(1996)		6
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olsenii</i>)*	0000/+	0000/+	0000/+	II	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	0000	0000	0000		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. nelsonii</i>)*	0000/0000	0000/0000	0000/0000		
Any other diseases of importance ^{b/}					
Goldfish herpesvirus	-(2002)	+	-(2002)	II	10
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	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	Histological evidence of viral encephalopathy and retinopathy was confirmed by electron microscopy in clinically healthy barramundi fry in Queensland in April 2002. VER was not reported during this period despite active surveillance, but is known to have occurred in the Northern Territory (last year 2001), Tasmania (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 a silver perch farm in New South Wales in May and June 2002, and from Queensland in June 2002 (based on histological diagnoses). EUS was not reported during this period from Victoria (despite active surveillance), but is known to have occurred earlier in 2002. Not reported during this quarter from the Northern Territory and Western Australia (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</i> species: 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. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland and South Australia. No information available in the Australian Capital Territory (no marine water responsibility). <i>Bonamia ostreae</i> : Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia. No information available in the Australian Capital Territory (no marine water responsibility).
5	<i>Marteilia refringens</i> : Active surveillance and never reported in Tasmania. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, South Australia, Victoria and Western Australia. No information available in the Australian Capital Territory (no marine water responsibility). <i>Marteilia sydneyi</i> : Reported from New South Wales in April and May 2002, with targeted active surveillance. Considered enzootic in Queensland, but lack of diagnostic submissions. Not reported from Western Australia this period despite passive surveillance (last occurred 1994). Active surveillance and never reported in Tasmania. Passive surveillance and never reported in the Northern Territory, South Australia and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).
6	<i>Mikrocytos mackini</i> : Active surveillance and never reported in Tasmania. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, South Australia, Victoria and Western Australia. No information available in the Australian Capital Territory (no marine water responsibility). <i>Mikrocytos roughleyi</i> : Active surveillance and never reported in Tasmania. Not reported during this period (passive surveillance) but known to have occurred in New South Wales (last year 1996) and Western Australia (last year 1996). Considered enzootic in Queensland but lack of diagnostic submissions. Passive surveillance and never reported in Northern Territory, South Australia and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).
7	<i>Perkinsus marinus</i> : Active surveillance and never reported in Tasmania. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, Victoria and Western Australia. Never reported from South Australia despite active targeted surveillance. No information available for the Australian Capital Territory (no marine water responsibility). <i>Perkinsus olseni</i> : Reported from New South Wales and South Australia in April, May and June 2002 (targeted active surveillance). Not reported from Western Australia this period (despite passive surveillance), but known to have occurred last in 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	The relationship between 'Gill Associated Virus' GAV and 'Lymphoid Organ Virus' LOV is unclear to the extent that even the existence of GAV – as a separate and distinguishable virus - is questionable. There is no specific detection test for GAV. The research detection test (a RT-PCR test) recognises LOV. LOV appears widespread in healthy farmed and wild <i>Penaeus monodon</i> in Queensland. LOV is considered part of the Mid-crop Mortality Syndrome, but its role in MCMS pathogenesis is unclear.
9	A clear diagnosis of Mid-Crop Mortality Syndrome and MCMS-like syndromes on Queensland prawn farms remains problematic. Three different viruses have now been associated with farm mortalities, these being Spanner-isolated Mortality Virus, Gill-associated Virus and Mourilyan 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.
10	There have been two cases of goldfish herpes virus diagnosed in 2002 in Western Australia. Both cases were referred by members of the public following mortalities in goldfish. The histopathology is distinctive and has not been seen before in cases submitted to Western Australia.

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

AQUAVETPLAN Destruction and Disposal Manuals released

On 20 May 2002, the Federal Minister for Agriculture, Fisheries and Forestry, the Hon. Mr Warren Truss launched the *AQUAVETPLAN Operational Procedures Manual – Destruction* (the Destruction Manual) and the *AQUAVETPLAN Operational Procedures Manual - Disposal* (the Disposal Manual) as the fourth and fifth in a series of operational manuals and instruments. AQUAVETPLAN manuals outline the methods and protocols that will help ensure Australia is prepared for aquatic animal emergency disease outbreaks. The AQUAVETPLAN manuals are being produced as part of AQUAPLAN, Australia's National Strategic Plan for Aquatic Animal Health (1998-2003).

The Destruction Manual provides a description of the procedures available for the destruction of infected aquatic animals in the event of a suspected or actual aquatic animal disease emergency. The Disposal Manual describes a range of possible methods including incineration and deep burial for the safe disposal of diseased aquatic animals. Both Manuals list the considerations necessary for the selection of an appropriate method for any particular circumstances and then provide detailed protocols for each method.

The manuals are intended for use:

- *in operations* either as the primary manual or as a detailed reference to back up action plans;
- *in planning* as the basis for the development of more specialised procedures; and
- *in training* as a key reference.

Both the Destruction and the Disposal Manuals has been endorsed by industry and state, territory and Commonwealth governments and can be downloaded from the AFFA website:

<http://www.affa.gov.au>. -Simply click on 'Product Integrity, Animal and Plant Health' in the OUTPUTS box on the left hand side of the AFFA home-page, then under 'All Product Integrity / Animal and Plant Health Documents', click on the folder 'AQUAVETPLAN'. There you can access and download all of the AQUAVETPLAN Operational Procedures Manuals that have been produced so far.

Country: Bangladesh

Period: April to June 2002

Item	Disease status ^a			Comment Numbers
	April	May	June	
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)				
7. Bacterial kidney 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 mortality syndrome ('Midcrop mortality 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				

^bIn 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 (*Gyrodactylus salaris*); Enteric septicaemia of catfish

Molluscs: Iridovirus (Oyster velar disease)

Crustaceans: Nuclear polyhedrosis baculovirus (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Taura syndrome; Necrotising hepatopancreatitis

* OIE notifiable diseases

^aPlease 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	
2	
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4	
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2. New aquatic animal health regulations introduced within the past six months (with effective date):

Country: Hong Kong SAR, China

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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	0000	0000	0000	II	
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	II	
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000	II	
2. Marteiliosis (<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	II	
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	II	
3. White spot disease*	0000	0000	0000	II	
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	II	
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	0000	0000	0000	II	
2. Viral haemorrhagic septicaemia*	0000	0000	0000	II	
Mollusc diseases					
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	0000	0000	0000	II	
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	
2	
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: Iran

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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/}					
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	
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: Japan

Period: April to June 2002

Item	Disease status ^a			Comment Numbers
	Month			
	April	May	June	
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*	+	+	+	
4. Infectious pancreatic necrosis	+	+	+	
5. Viral encephalopathy and retinopathy	-	-	-	
6. Epizootic ulcerative syndrome (EUS)	-	+	-	
7. Bacterial kidney disease	+	+	+	
8. Red seabream 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 mortality syndrome ('Midcrop mortality syndrome')	0000	0000	0000	
7. Taura Syndrome Virus*				
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				

^bIn 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 (*Gyrodactylus salaris*); Enteric septicaemia of catfish

Molluscs: Iridovirus (Oyster velar disease)

Crustaceans: Nuclear polyhedrosis baculovirus (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Taura syndrome; Necrotising hepatopancreatitis

* OIE notifiable diseases

^aPlease 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 North-eastern 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.
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2. New aquatic animal health regulations introduced within the past six months (with effective date):

Country: Lao PDR

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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. 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/}					
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	
2	
3	
4	
5	
6	
7	
8	

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

Country: Malaysia

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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)	-	-	+		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>)*	***	***	***		
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	0000	0000	0000		
3. White spot disease*	+	+	-		2
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 ^{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	One farmer at Kg. Machang Bubuk, Bukit Mertajam had EUS-like symptoms with epidermal ulceration in cat-fish culture (<i>Clarias</i> sp) ponds. Fungal agents could not be detected but <i>Aeromonas</i> sp was isolated from the infected fish. Mortality in pond was about 20 Kg/day. Poor water quality (heavy plankton blooms), unhygienic food and hot climate were contributive factors. Farmer was advised to improve water quality by water exchange and use clean pellet feed.
2	The white spot disease was detected by PCR in Sanglang areas of Kedah in pond grown Tiger shrimp (<i>Penaeus monodon</i>) juveniles (1.0-1.5 g). Incidence rate was less than 2%. No mass mortality was observed. Infected pond (1 pond- 2,500 sq.m) of one farmer was disinfected with chlorine (30 ppm). Estimated loss was RM 27,400.00.
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Ban importation of Japanese Carp, Koi, from Indonesia is still on.

Country: Myanmar

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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	3,4,5
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*	?	?	?	II	2,4,5
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	+ ()	+ ()	+ ()	III	1,4,5
4. Baculoviral midgut gland necrosis	0000	0000	0000		
5. Gill associated virus (GAV)	?	?	?		
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>)*	***	***	***		
Any other diseases of importance^{b/}					
Fin Fish Gyrodactylosis	+ ()	+ ()	+ ()	I	2,4,5
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	PCR result (Private) Precaution measures are worked out.
2	Further investigation will be carried out.
3	Generally occurred in pond cultured catfish in April.
4	Microbiology examination lab complete with necessary apparatus and equipment to detect microbial disease.
5	Improve a advance methods and technique to investigate microbial diseases are required.
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Workshop on Aquatic Animal Health Management was conducted in Yangon during (10 to 11) April 2002. Committee for Drafting the National Strategy for Aquatic Animal Health Management has been set up and activated in July 2002.

Country: Nepal

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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	1,2
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/}					
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 the occurrence of EUS reported from three Terai-plain Districts and no report of outbreak of the disease in the Districts of Mid-hills. Farm reared <i>Cirrhinna mrigala</i> (Naini), <i>Labeo rohita</i> (Rohu) and <i>Clarias sp.</i> (Mangur) of sized 30 to 500 gms. were reported to be infected with EUS
2	The Economic loss due to EUS reported to be not significant during this period.
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: Pakistan

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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. 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/}					
Lernaeasis	+	+	+		1
Bacterial haemorrhagic septicemia		+	+		2
Black spot disease			+		3
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	Four cases of Lernaeasis in culturable fish were reported from private fish farms (infected area 36.5 acres). Dipterex was suggested to be used in pond.
2	One case of abdominal dropsy (Bacterial Haemorrhagic septicaemia) was reported from a government fish farm (infected area 3 acre). Oxytetracycline was used to treat fish.
3	One case of black spot disease, Posthodiplostomosis in Catle catle was reported from a Government Hatchery (infected area of Nursery Pond 0.5 acre). Prophylactic and control measures were suggested.
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: Philippines

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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)	-	-	-		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	One grouper broodstock, <i>Epinephelus coioides</i> (dead) at the SEAFDEC culture facility examined during the month of June 2002 produced positive results for VNN by RT-PCR. Examination conducted by SEAFDEC-AQD Fish Health Laboratory.
2	No reported case (passive) during the reporting period (April-June 2002).
3	<p>There were 131 batches of <i>P. monodon</i> post larvae from hatcheries in Iloilo, Negros Occidental, Bohol, Cebu, Dumaguete, Davao, Misamis Oriental examined during the months of April-June 2002 that produced negative results for WSSV using PCR technique. Examination conducted by the NPPMCI Lab and BFAR-Regional Fish Health Laboratories.</p> <p><i>P. monodon</i> samples from grow-out ponds taken from San Carlos and Cebu (Visayas) examined during the month of May 2002 produced negative results for WSSV using PCR technique. Examination conducted by the NPPMCI Lab and BFAR-Regional Fish Health Laboratories.</p> <p><i>P. monodon</i> samples from grow-out ponds (juvenile stage) in Bulacan (Luzon) examined during the months of May and June 2002 produced positive results for WSSV using PCR technique. Examination conducted by SEAFDEC-AQD Fish Health laboratory.</p>
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: Singapore

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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. Mikrocystosis (<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	
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: Sri Lanka

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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*					
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					
1. Arius sp. mortality	+	+	***	I	4
^{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	P. monodon samples from the farms and hatcheries tested with PCR amplification for White Spot Disease showed positive results. Intensity of occurrence was very low compared to previous quarters.
4	Mass mortality of Arius spp. (logoon cat fish species) in Batticaloe lagoon (one of the largest in eastern part of the country) due to sudden salinity change and algal bloom.
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: Thailand

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	June	July		
Diseases prevalent in some parts of the region					
Finfish disease					
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	-
6. Epizootic ulcerative syndrome (EUS)	-	-	-	II	-
7. Bacterial kidney disease	***	***	***		***
8. Red sea bream iridoviral disease	-	-	-	III	-
Mollusc disease					
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	***	***	***		
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	***	***	***		
3. Mikrocystosis (<i>Mikrocystos 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	1
4. Baculoviral midgut gland necrosis	***	***	***		
5. Gill associated virus (GAV)	***	***	***		
6. Spawner-isolated mortality virus disease	***	***	***		
7. Taura syndrome*	-	-	-	III	2
Diseases presumed exotic to the region, but reportable to the OIE					
Finfish diseases					
1. Spring viraemia of carp*	-	-	-	III	-
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

Country: Vietnam

Period: April to June 2002

Item	Disease status ^{a/}			Level of Diagnosis	Epidemiological Comment Numbers
	Month				
	April	May	June		
Diseases prevalent in some parts of the region					
Finfish disease					
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	0000	0000	0000		
6. Epizootic ulcerative syndrome (EUS)	-	-	-		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. 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*	-	+	+	2,3	2
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
3. White spot disease*	+	+	+	2, 3	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*	***	***	***		
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/}					
Diseases of grass carp	+	+	-	2,3	4
Monodon baculovirus disease (MBV)	+	+	+	2	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	Disease was not reported during this period but known to occur during last period.
2	The disease was reported during this period in Quang ninh, Thanh hoa, Nghe An province. Detection by histology and PCR
3	Reported in many provinces in whole of Vietnam such as Quang ninh, Hai phong, Thanh Hoa, Nghe an, Nha trang, Ben tre..... and affected shrimp were <i>Penaeus monodon</i> . The disease was confirmed by histology and PCR
4	Hemorrhagic disease in grass carp was reported during this period in Northern Vietnam. Affected fish were at fingerling stage. Confirmed by virology. Red spot disease in grass carp was also reported during this period and confirmed by bacteriology.
5	The disease was reported in the whole of Vietnam such as Quang ninh, Hai phong, Nghe An, Thanh hoa, Khanh hoa, Phu Yen, Ben tre..... The disease was detected in shrimp fry and confirmed by histology
6	
7	
8	

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

Decision number 1/2002 of Ministry of Fisheries dated January 22, 2002 on "List of forbidden antibiotics and chemicals in fisheries sector"

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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FAO of the United Nations
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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, Temdoun 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:

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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. Foruth 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
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AQUAPLAN Zoning Policy Guidelines

Information from:

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Product Integrity, Animal and Plant Health
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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*)*
 Marteilliosis (*Marteilia refringens*, *M. sydneyi*)*
 Microcytosis (*Mikrocytos mackini*, *M. roughleyi*)*
 Perkinsosis (*Perkinsus marinus*, *P. olsenii*)*
- 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 baculovirus (*Baculovirus penaei*)
 Crayfish plague (*Aphanomyces astaci*)
 Taura syndrome
 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:

OIE East 311, Shin Aoyama Building, 1-1-1 Minami Aoyama, Minato-ku,
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Notes

Notes

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

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