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

October-December 1998

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Foreword

The establishment of a regional aquatic animal disease reporting system of serious diseases is one of the major components of the Regional Programme on “Development of Technical Guidelines on Quarantine and Health Certification, and the Establishment of Information Systems for the Responsible Movement of Live Aquatic Animals in Asia “currently being participated in by 22 countries and territories in the Asia-Pacific.

The reporting system serves not only at collecting and collating disease data but more importantly provides further insight into disease problems present in our region, to assist in its resolution and in providing support for better and faster decision-making. This is of extreme importance for national policy makers when planning and monitoring aquatic animal health programme, as well as fulfilling international disease reporting responsibilities and providing accurate health certification for live aquatic animal exports. Likewise, it is useful to field- and laboratory-based aquatic animal health specialists in planning and implementing local aquatic health programmes.

This endeavour strongly supports the overall goal of the Regional Programme aimed at providing sound advice to governments, and ultimately to farmers in support of responsible aquaculture and health management practices for better productivity and to promote sustainability. It is hoped that participating countries and territories would continuously strive to improve the quality of reporting with respect to developing more efficient surveillance and monitoring systems, a continuous and timely submission and therefore take advantage of the significant trade benefit that will result from regular documentation of valid information on aquatic animal health and demonstrated record of containing and controlling aquatic disease outbreaks.

This publication is complementary to the OIE Quarterly Aquatic Animal Disease Report and contains details of the reports received at the NACA Secretariat for the period October-December 1998 following the standard reporting format as developed and agreed by the National Coordinators from the participating governments. The signed reports are available at the NACA Secretariat in Bangkok, Thailand, and/or OIE Regional Representation in Tokyo, Japan.

Reports Received by the NACA Secretariat

Country: **Australia**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
1. Epizootic haematopoietic necrosis*	-(1996)	-(1996)	-(1997)	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	+()	-()	-(1998)	2
6. Epizootic ulcerative syndrome (EUS)	-(1998)	-(1998)	-(1998)	3
7. Bacterial kidney disease	0000	0000	0000	
Mollusc disease				
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	-(1996)/0000	-(1996)/0000	-(1996)/0000	4
2. Marteilliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000/-(1998)	0000/-(1998)	0000/-(1998)	5
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000/-(1996)	0000/-(1996)	0000/-(1996)	6
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	-0000/-(1995)	-0000/-(1995)	-0000/-(1995)	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 mortality syndrome('Midcrop mortality syndrome')	...	...	...	9
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	0000/0000	0000/0000	
Any other diseases of importance**				
Pilchard Herpes Virus	-(1995)	-(1995)	+	10
Unknown diseases of serious nature				

** 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 (*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

*** 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: Australia

Comment No.	
1	EHN not reported during this period but known to have occurred in Victoria (last year 1996), and New South Wales (last year 1996). Targeted active surveillance and never reported in Tasmania, Western Australia. Passive surveillance in Victoria. Passive surveillance and never reported in Northern Territory and Queensland. Not reported but known to occur in South Australia. Suspected on the basis of clinical signs but not confirmed in November/ December in the Australia Capital Territory (passive surveillance).
2	Suspected in one batch of barramundi, <i>Lates calcarifer</i> , in one facility in South Australia. Not reported but known to occur in Queensland. Passive surveillance and never reported in New South Wales, Tasmania, Victoria and Western Australia. No information available in the Australian Capital Territory and the Northern Territory.
3	Not reported but known to have occurred earlier in 1998 in Northern Territory, Queensland, Western Australia, and in 1997 in NSW (passive surveillance in all four states). Passive surveillance and never reported in South Australia and Victoria. Passive surveillance and last suspected but not confirmed in Tasmania in 1981. No information available in the Australian Capital Territory.
4	<i>Bonamia</i> species: Not reported during this period but known to have occurred in Victoria (last year 1993), Western Australia (last year 1995) and Tasmania (last year 1996). Regarded as enzootic in Tasmania. Passive surveillance and never reported in New South Wales, Northern Territory, Queensland and South Australia. No information available in the ACT (not marine water responsibility). <i>Bonamia ostreae</i> : Passive surveillance and never reported in New South Wales, Northern Territory, Queensland, South Australia, Victoria and Western Australia. Never reported in Tasmania. No information available in the Australia 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> : Not reported during this period (despite targeted active surveillance) but known to have occurred earlier in 1998 in New South Wales. Considered enzootic in Queensland, but lack of diagnostic submissions. Not reported during this period but known to have occurred in Western Australia (last year 1994). Active surveillance and never reported in Tasmania. Passive surveillance and never reported in Northern Territory, South Australia and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).
6	<i>M. 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>M. roughleyi</i> : Not reported during this period 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 South Australia, Victoria and Northern Territory. No information available in the Australian Capital Territory (no marine water responsibility).
7	<i>P. marinus</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 for the Australian Capital Territory (no marine water responsibility). <i>P. olseni</i> : Not reported during this period but known to have occurred in New South Wales, South Australia and Western Australia (last year 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) recognised LOV. LOV appears widespread in healthy 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	‘Midcrop Mortality Syndrome’ MCMS is general term used to describe presumed virus associated mortality in pond reared prawns. Several viral agents have been associated with MCMS outbreaks, including ‘Spawner-isolated Mortality Virus’ SMV (‘Spawner Mortality Syndrome’).
10	Reported, but not yet confirmed by electron microscopy, in Western Australia in December 1998

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

Country: **Bangladesh**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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	
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*	-	-	-	2
4. Baculoviral midgut gland necrosis	0000	0000	0000	
5. Gill associated virus (GAV)	0000	0000	0000	
6. Spawner mortality syndrome('Midcrop mortality 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**				
Gyrodactylosis				3
Unknown diseases of serious nature				

** 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 (*Gyrodactylus salaris*); Enteric septicaemia of catfish**Molluscs:** Iridovirus (Oyster velar disease)**Crustaceans:** Nuclear polyhedrosis baculovirosis (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Taura syndrome; Necrotising hepatopancreatitis

* OIE notifiable diseases

*** 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	Snake head, catfish, eel and carps are reported to be affected
2	<i>Penaeus monodon</i> is known to be affected but not reported during this quarter even this year
3	Disease occurred in nursery ponds

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

Country: **Hong Kong SAR**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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**				
Unknown diseases of serious nature				

** 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 (*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

*** 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.	

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

No new regulations introduced

Country: **India**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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)	+()	+()	+()	
7. Bacterial kidney 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*	0000	0000	0000	
2. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	
3. White spot disease*	+()	+()	+()	
4. Baculoviral midgut gland necrosis	0000	0000	0000	
5. Gill associated virus (GAV)	0000	0000	0000	
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*	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**				
Unknown diseases of serious nature				

** 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 (*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

*** 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.	

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

Country: **Republic of Korea**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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)	0000	0000	0000	
7. Bacterial kidney 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>)*	?	?	?	
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	?	?	?	
5. Gill associated virus (GAV)	0000	0000	0000	
6. Spawner mortality syndrome('Midcrop mortality 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>)*	0000	0000	0000	
Any other diseases of importance**				
Gyrodactylosis (<i>Gyrodactylus salaris</i>)	0000	0000	0000	
Unknown diseases of serious nature				

** 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 (*Gyrodactylus salaris*); Enteric septicaemia of catfish**Molluscs:** Iridovirus (Oyster velar disease)**Crustaceans:** Nuclear polyhedrosis baculovirosis (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Taura syndrome; Necrotising hepatopancreatitis

* OIE notifiable diseases

*** 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.	

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

Country: **Lao PDR**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
1. Epizootic haematopoietic necrosis*	1
2. Infectious haematopoietic necrosis*	2
3. <i>Oncorhynchus masou</i> virus disease*	3
4. Infectious pancreatic necrosis	4
5. Viral encephalopathy and retinopathy	5
6. Epizootic ulcerative syndrome (EUS)	...	+()	+()	6
7. Bacterial kidney disease	7
Mollusc disease				
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	8
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	9
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	10
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	11
Crustacean disease				
1. Yellowhead disease*	12
2. Infectious hypodermal and haematopoietic necrosis	13
3. White spot disease*	14
4. Baculoviral midgut gland necrosis	15
5. Gill associated virus (GAV)	16
6. Spawner mortality syndrome('Midcrop mortality syndrome')	17
Diseases presumed exotic to the region, but reportable to the OIE				
Finfish diseases				
1. Spring viraemia of carp*	18
2. Viral haemorrhagic septicaemia*	19
Mollusc diseases				
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*	20
Any other diseases of importance**				
	21
Unknown diseases of serious nature				
	22

** 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 (*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

*** 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	Lack of laboratory and shortage of well trained technical know-how and professional skilled manpower.
2	No.2 to No. 5 are similar to No.1
3	No. 6 the disease is observed in comparing with international references
4	No.7 to No.22 are similar to No.1

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

Country: **Malaysia**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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	
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
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 mortality syndrome('Midcrop mortality 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**				
Unknown diseases of serious nature				

** 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 (*Gyrodactylus salaris*); Enteric septicaemia of catfish**Molluscs:** Iridovirus (Oyster velar disease)**Crustaceans:** Nuclear polyhedrosis baculovirosis (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Taura syndrome; Necrotising hepatopancreatitis

* OIE notifiable diseases

*** 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	EUS was suspected in snakehead, <i>Channa striata</i> in 80% of cultured pond stock in Relau, Penang. <i>Aeromonas hydrophila</i> was isolated. Histopathology and fungus isolation is in progress.
2	Disease is not reported in the reporting months
3	Seven specimen which came from hatcheries in Sabah and one specimen from Selangor were found positive to nested PCR tests.

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

No

Country: **Napal**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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)	-	+	+	1 and 2
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**				
Unknown diseases of serious nature				

** 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 (*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

*** 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	EUS was found the districts of Sunsari and Bara of Terai in the fish spp. such as <i>Puntius</i> sp., <i>Cirrhinus mrigala</i> , <i>Labeo rohita</i> , <i>Ophicephalus</i> sp. and later on found silver carp and bighead carp both in the month of Nov-Dec 1998. There is report of EUS infection in other districts.
2	EUS disease was found in the Districts of Sunsari and Bara of Terai in the fish spp. such as <i>Puntius</i> sp., <i>Cirrhinus mrigala</i> , <i>Labeo rohita</i> , <i>Ophicephalus</i> sp. and later on found on silver carp and bighead carp both in the month of Nov-Dec 1998. There is no report of EUS infection in other districts.

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

No new aquatic animal health regulation was introduced in the country. So far, there is only one Aquatic Life Protection Act 1998. It was approved by the House of Representative and is awaiting King's accord.

Country: **Pakistan**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
1. Epizootic haematopoietic necrosis*	...	...	...
2. Infectious haematopoietic necrosis*	?	?	?	1
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)	+()	+()	+()	2
7. Bacterial kidney 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*	?	?	?	1
4. Baculoviral midgut gland necrosis	0000	0000	0000	
5. Gill associated virus (GAV)	-	-	-	
6. Spawner mortality syndrome('Midcrop mortality 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**				
Unknown diseases of serious nature				
	0000	0000	0000	

** 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 (*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

*** 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	The presence of disease could not be confirmed largely due to the lack of diagnostic facilities.
2	Occurrence has been reported from restricted area of the provinces of Sindh.

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

Country: **Philippines**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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	...	?	...	1
6. Epizootic ulcerative syndrome (EUS)	-	-	+	2
7. Bacterial kidney 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	-	-	-	4
3. White spot disease*	0000	0000	0000	5
4. Baculoviral midgut gland necrosis	0000	0000	0000	
5. Gill associated virus (GAV)	?	?	?	6
6. Spawner mortality syndrome('Midcrop mortality syndrome')	+	+	+	7
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**				
Unknown diseases of serious nature				

** 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 (*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

*** 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	A reported clinical manifestation of the disease was observed from a cage-cultured grouper in Davao, Mindanao. Active surveillance is needed to confirm the disease.
2	Clinical manifestation (dermonecrotic ulcers) of the disease was observed from snakehead and catfish in Carigara Bay, Tacloban, Leyte, in Visayas. There is no histopathological analysis conducted to confirm the disease. However, EUS was confirmed in 1994 to be present in the area.
3	Samples of <i>Peneaus monodon</i> from selected farms examined using combined SDS Western blot enzyme immunoassay showed positive results
4	The disease was last detected from the <i>Penaeus monodon</i> samples collected in Negros Occidental in July 1997.
5	Surveillance/monitoring of selected <i>P.monodon</i> farms is in place using histopathology and occasionally PCR technique to confirm the presence of disease.
6	Samples of <i>P.monodon</i> showed histopathological lesions associated with the disease. However, other tests (Transmission Electron Microscopy, PCR) are still needed for confirmation.
7	Samples of <i>P. monodon</i> from selected farms and sent to Australia for <i>in situ</i> hybridisation using SMV probe produced positive results.

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

Draft Fisheries Administrative Order (FAO) on Live Fish Importation is being finalised

Country: **Singapore**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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	-(1997)	-(1997)	-(1997)	1
6. Epizootic ulcerative syndrome (EUS)	0000	0000	0000	
7. Bacterial kidney disease	0000	0000	0000	
Mollusc disease				
1. Bonamiosis (<i>Bonamia</i> sp., <i>B. ostreae</i>)*	0000	0000	0000	2
2. Marteiliosis (<i>Marteilia refringens</i> , <i>M. sydneyi</i>)*	0000	0000	0000	2
3. Mikrocytosis (<i>Mikrocytos mackini</i> , <i>M. roughleyi</i>)*	0000	0000	0000	2
4. Perkinsosis (<i>Perkinsus marinus</i> , <i>P. olseni</i>)*	0000	0000	0000	2
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	0000	0000	0000	
5. Gill associated virus (GAV)	0000	0000	0000	
6. Spawner mortality syndrome('Midcrop mortality 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	2
Any other diseases of importance**				
Unknown diseases of serious nature	nil	nil	nil	

** 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 (*Gyrodactylus salaris*); Enteric septicaemia of catfish**Molluscs:** Iridovirus (Oyster velar disease)**Crustaceans:** Nuclear polyhedrosis baculovirosis (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Taura syndrome; Necrotising hepatopancreatitis

* OIE notifiable diseases

*** 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 & Retinopathy –last major outbreak reported in Nov/Dec 1997 in seabass fry.
2	No oyster farming in Singapore

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

None

Country: **Sri Lanka**Period: **October-November 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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*	+()			1
2. Infectious hypodermal and haematopoietic necrosis				
3. White spot disease*	+()	+()	+()	2
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**				
Unknown diseases of serious nature				

** 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 (*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

*** 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 external clinical signs not observed. Confirmed by samples sent to AAHRI. Limited to Chilaw-Kusala area along the Dutch canal. First record in Sri Lanka.
2	Clear visual symptoms observed. Appeared in the same area with suspected Yellow Head Disease.

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

Aquaculture Products (Exports) regulations are being prepared.

Country: **Thailand**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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	-	-	-	
6. Epizootic ulcerative syndrome (EUS)	-	-	-	
7. Bacterial kidney 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	?	?	?	
3. White spot disease*	+	+	+	
4. Baculoviral midgut gland necrosis	0000	0000	0000	
5. Gill associated virus (GAV)	0000	0000	0000	
6. Spawner mortality syndrome('Midcrop mortality 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**				
Gyrodactylosis (<i>Gyrodactylus salaris</i>)				
Iridovirus od cultured <i>Oplegnathus fasciatus</i>				
Unknown diseases of serious nature				

** 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 (*Gyrodactylus salaris*); Enteric septicaemia of catfish**Molluscs:** Iridovirosis (Oyster velar disease)**Crustaceans:** Nuclear polyhedrosis baculovirosis (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Taura syndrome; Necrotising hepatopancreatitis

* OIE notifiable diseases

*** 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.	

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

Country: **Vietnam**Period: **October-December 1998**

Item	Disease status ***			Comment numbers
	October	November	December	
Diseases prevalent in some parts of the region				
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)	?	?	?	2
7. Bacterial kidney disease	+	+	+	1
Mollusc disease	0000	0000	0000	
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*	-	-	-	3
2. Infectious hypodermal and haematopoietic necrosis				
3. White spot disease*	-	-	-	3
4. Baculoviral midgut gland necrosis	-	-	-	7
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*	-	-	-	(1976)
2. Viral haemorrhagic septicaemia*	-	-	-	6
Mollusc diseases				
1. Haplosporidiosis (<i>Haplosporidium costale</i> , <i>H. nelsoni</i>)*				
Any other diseases of importance**				
Red spot disease in grass carp	+	+	+	1
Disease of grouper cage cultured	+	+	+	4
Disease of soft shell turtle				5
<i>Argulus</i> , <i>Ichthyophthyrus</i> , <i>Echo</i> worm, <i>Trichodina</i> , <i>Eptilyis</i> , <i>Zo-othamnium</i>	+	+	+	8
Unknown diseases of serious nature				

** 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 (*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

*** 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	-Haemorrhagic Disease/Red Spot Disease is mainly found in diseased and also in some other species (Indian carps, black carp, common carp, ...) cultured in the same pond. -There have been two different definitions of grass carp disease. One is Red Spot Disease (red spots and lesions have mostly been found in the body of the adult infected, the mortality is within 30-70%); the other is known as haemorrhagic disease (mostly found in fingerlings with normal external signs but the internal organs such as kidney, liver, intestine are haemorrhagic, mortality is higher than that of red spot disease). However, in both case, the pathogens which have been isolated are: <i>Aeromonas hydrophila</i> (66.16%); <i>A. caviae</i> ; <i>A. sobria</i> ; <i>Pseudomonas fluorescens</i> ; <i>Vibrio cholerae</i> ; <i>Mycobacterium</i> sp., <i>Septolegnia</i> ; <i>Achlya</i> ; and <i>Aphanomyces</i> . -There have been some ideas on grass carp disease with the above described signed. Some scientists have shown that virus may play an important role in the situation so RIA1 has planed to concentrate on Red Spot Disease for the following years in order to ensure the causative pathogens. From that, prevention and treatment method will be possible to recommend.
2	EUS is possibly found in haemorrhagic diseased groupers in cages.
3	The disease was mostly found in the tiger shrimp hatchery causing high mortality of larvae.
4	Pathogens isolated from diseased groupers are as follows: <i>Vibrio</i> sp., <i>Pseudomonas</i> sp., <i>Chilonella</i> , and Trematode
5	Pathogens isolated from diseased soft shell turtles are: <i>Zoothamnium</i> , <i>Epistylis</i> , <i>Tokophrya</i> and <i>Achlya</i> .
6	First found in grass carp in 1994 to date based on clinical sign, no research. Occurs in interseason or spring and summer (Temperature:24-30C)
7	Found in PL 12-20 of <i>P.japonicus</i> , no further information available to date.
8	These diseases have been reported and caused damage mostly to the fish/shrimp fingerlings.

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

Related Events

5th International Symposium on Fish Parasites: 9-13 August 1999, Ceske Budejovice, Czech Republic

Information from:

The secretariat
Institute of Parasitology
Academy of Sciences of the Czech Republic
Branisovska 31, 370 05 Ceske Budejovice
Czech Republic
Email: Moravac@paru.cas.cz or lom@paru.cas.cz

9th International Conference of the European Association of Fish Pathologists (EAFP)-“Diseases of Fish and Shellfish”: 19-24th September 1999, Rhodes, Greece

Information from:

Dr Maura Hiney
EAFP Meeting Secretary
Department of Microbiology
National University of Ireland, Galway
Galway City, Ireland
Fax: +353 91 750514
Email: maura.hiney@nuigalway.ie

International conference on Risk Analysis in Aquatic Animal Health: Paris, 8-10 February 2000

Information from:

Dr. K. Sugiura
Office International des Epizootic (OIE)
Email: k.sugiura@oie.int; Web site: <http://www.oic.int>

NACA-AAHRI shrimp health management Training/Workshop, 18-23 October 1999

Information from:

NACA secretariat
Email: naca@fisheries.go.th

CD-Rom on Diagnosis of Shrimp Diseases (by 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
Email: naca@fisheries.go.th

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.

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
Email: aaahri@fisheries.go.th

Second Announcement

Fourth Symposium on Diseases in Asian Aquaculture, “ Aquatic Animal Health for Sustainability”

List of National Coordinators

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

(Revised during the second workshop)

Symbols used in the report are similar to those used by FAO, OIE and WHO for the animal Health Yearbook. Please read this instruction carefully before you fill in the forms.

Under the heading "Month" please enter months of a quarter in question, e.g. July, August, September.

In "Comment Numbers" on page1, please enter serial number, and write your corresponding comments on page2, See Section C below.

If an unknown disease of serious nature appears, please fill in the line of the form and add epidemiological comments on page2.

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).
- oooo 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 disease, but no confirmed reported is available. **It is important that the species of animals to which it applies is indicated in the "Comments" on page2 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.

Refers to the Second Training Workshop of the FAO/NACA/OIE Regional Programme for the Development of technical Guidelines on Quarantine and Health Certification and Establishment of Information Systems for the Responsible Movement of live Aquatic Animals in Asia, 1-5 February 1999, Bangkok, Thailand.

C. Subjects to be covered in the Epidemiological Comments

1. Origin of 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 disease (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** of 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 one and a half month (45 days) after the end of the quarterly period.

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

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Notes

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