



QUARTERLY AQUATIC ANIMAL DISEASE REPORT (Asia and Pacific Region)

July – September 2016



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Foreword

15th Meeting of the Asia Regional Advisory Group on Aquatic Animal Health

The 15th Meeting of the Asia Regional Advisory Group on Aquatic Animal Health (AGM 15) was held at Centara Grand Central Ladprao, Bangkok, Thailand. The meeting was attended by the following members, co-opted members and observer:

- Prof. Mohammed Shariff Bin Mohamed Din (OIE, AAHSC; Malaysia);
- Dr. Hirofumi Kugita and Dr. Fania Dwi (OIE Regional Representation for Asia and the Pacific, Tokyo, Japan)
- Dr. Melba Reantaso (FAO HQ, Rome, Italy);
- Dr. Rolando Pakingking, Jr. (SEAFDEC Aquaculture Department)
- Dr. Kjersti Gravningen (Private Sector; Aquafuture Norway)
- Dr. Hong Liu (Shenzhen Exit & Entry Inspection and Quarantine Bureau, AQSIQ, China)
- Prof. Timothy Flegel (Centex Shrimp, Thailand)
- Dr. Supranee Chinabut (AAH Expert, Thailand)
- Dr. Thitiporn Laoprasert and Janejit Kongkumnerd (AAHRDD, Thailand)
- Dr. Eduardo Leano, Dr. Derun Yuan, Mr. Simon Wilkinson and Dr. Cherdsak Virapat (NACA)
- Dr. Andy Shinn (Fish Vet Group – Asia, Thailand)
- Dr. Diana Chee (AVA, Singapore)
- Dr. Chien Tu (AHRI, Chinese Taipei)

Dr. Reantaso was appointed as the Chairperson of AG for 2016-2107, while Dr. Liu as the Vice Chairperson. During the 3-day meeting, the group managed to discuss relevant issues on aquatic animal health in the region, aquaculture certification, antimicrobial use and antimicrobial resistance, and revisions of reportable diseases under the QAAD Reporting, among others. The group also assessed the progress made since the last AGM 14. Summarized in the table below are the recommendations made by the AG group based on the different issues that were discussed.

Issue(s)	Actions needed
1) Disease awareness	<ul style="list-style-type: none"> • NACA to raise awareness on the following diseases: <ul style="list-style-type: none"> ○ MrNV ○ MrTHV ○ Cherax iridovirus ○ Spiroplasma infection in shrimps ○ TILV ○ VNN ○ Streptococcosis in tilapia

	<ul style="list-style-type: none"> ○ Megalocytivirus ○ Carp oedema virus ○ Infection with <i>Batrachochytrium dendrobatidis</i> <ul style="list-style-type: none"> • NACA to prepare disease advisories on VCMD and other important diseases as listed above. • VCMD Disease Card to be further improved prior to its publication; Dr. Leaño to coordinate with the Chinese team
<p>2) QAAD Reporting</p>	<ul style="list-style-type: none"> • Session on QAAD Reporting be included in OIE-organized meetings for Aquatic Focal Points; member countries' legal obligation to report the presence or absence of reportable aquatic animal diseases should be highlighted; • Encourage more active reporting from member countries; • Issues on delays in submission of QAAD Reports caused by CVO's is to be dealt with on a case by case basis; • Determine the countries that are not regularly reporting or has stopped reporting; analyse the reasons as basis for taking some actions; • Revisit the design/architecture of the QAAD and progress to an online database storage system rather than paper reports; • Delete Monodon slow-growth syndrome from the QAAD list; • Add the following under non-OIE listed diseases: <ul style="list-style-type: none"> ○ VCMD ○ <i>Spiroplasma eriocheiris</i> infection ○ Iridovirus in crayfish
<p>3) Certification</p>	<ul style="list-style-type: none"> • Relevance of STDF proposal on harmonized ASEAN certification scheme for shrimps; a one-page brief should be prepared and be used to approach possible donors which can co-fund the project with STDF • Make a listing of all ASEAN guidelines related to AAH, and determine the status of implementation in the region; • AG to provide guidance in resource mobilisation for potential projects within the ASEAN and in collaboration with key donor countries like Australia, China, Japan, R.O. Korea and other interested partners.
<p>4) Diagnostics and Surveillance</p>	<ul style="list-style-type: none"> • PCR is recommended method for the detection of <i>Streptococcus</i> spp. (including <i>agalactiae</i>) in susceptible species; • Under-utilization of diagnostic capacity of the region; governments should establish mechanism to coordinate and connect their resourced. First step is to establish a database of laboratories and their capabilities; • Possibility of establishing a Network of Reference Laboratories (similar to Newton Foundation-funded project in Thailand) in

	<p>the region which can be directly connected to OIE;</p> <ul style="list-style-type: none"> • Establish and maintain database of AAH experts, training courses implemented, and trained personnel (mainly for use of ANAAHC).
5) AMU and AMR	<ul style="list-style-type: none"> • FAO HQ-supported AMR project to work closely with FAO-RAP, in support of AMR activities in the region; • Explore several mechanisms for collecting data on AMR, including from internet, national data, first-hand information from farmers and other stakeholders; • Priority action be taken on this issue as this is important for aquaculture development and sustainability, as well as for the environment considering the high profile attention given by major international organizations like WHO, OIE, FAO and UN; • Support the development of national action plans on AMR under the One Health approach, and assist in the aquatic/aquaculture component of the plan; • Capacity building on: training of veterinarians; drug prescription; farmer education; • Mobilise resources to support the required actions at both regional and national levels.
6) Support on AAH management in the region	<ul style="list-style-type: none"> • FAO should increase support to the region on AAH activities; • China to continue to provide information on scientific findings on AAH and to continue to actively support and take the lead in areas of specific competence in AAH.
7) OIE matters	<ul style="list-style-type: none"> • NACA to take a leading role in ensuring that Aquatic Focal Points raise important issues with their CVO in advance of the OIE GS ; • Develop a mechanism for an Asian “one voice” similar to what is being used by EU and African group to voice out concerns on AAH during OIE GS; • Pool information on the OIE reference laboratories for aquatic animal diseases.
8) AAH management strategy and emergency preparedness	<ul style="list-style-type: none"> • Governments to undertake gap analysis using existing mechanisms such as FAO self-assessment questionnaires or OIE PVS tool to determine the required services that should be put into place in support to the fast growing aquaculture sector; • Bring together terrestrial and livestock health authorities and CVOs in a common meeting to share experiences on early warning, response and emergency management as a matter of urgency.
9) Biosecurity	<ul style="list-style-type: none"> • AMCs to work together in raising the profile of biosecurity in

	<p>ASEAN as priority area to be highlighted at FAO COFI sub-committee meetings; NACA to coordinate.</p>
<p>10) Amphibian health</p>	<ul style="list-style-type: none"> • Investigate the impact of amphibian health issues on subsistence farmers in the region, e.g. China, Thailand, Cambodia, Lao PDR, Viet Nam, Indonesia and Myanmar; • Try and improve coordination between wildlife authorities and health authorities for amphibians.
<p>11) AGM14 issues</p> <p>a) AMR</p> <p>b) AHPND</p> <p>c) Risk Assessment on pathogen spread</p> <p>d) Inclusion of reptiles under terrestrial animals</p> <p>e) Probiotics</p> <p>f) Australia's program on laboratory proficiency testing</p>	<ul style="list-style-type: none"> • Next AGM will have a technical session on AMR as an agenda item. • Consider development of cartoon-based extension materials, which can be easily adapted to other languages; • FAO have developed an introductory training course on import risk analysis. However, these training courses are attached to TCPs. NACA could apply for a regional TCP on behalf of a number of regional countries. • Inform NACA member states of the decision of the OIE General Assembly to treat reptiles as terrestrial animals for purposes of the code. • Collect information on regulation of probiotics in the region. • NACA to follow-up; OIE reference laboratories should be made use for proficiency testing.

Reports Received by the NACA and OIE-RRAP

(Officially prepared by OIE Aquatic Focal Point/NACA National Coordinator, and submitted by OIE Delegate)

Country: AUSTRALIA*Period: July - September 2016

Item	Disease status ^{a/}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	-(2012)	-(2012)	-(2012)		1
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp (SVC)	0000	0000	0000		
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	-(2016)	-(2016)	-(2016)		2
6. Red seabream iridoviral disease (RSID)	0000	0000	0000		
7. Koi herpesvirus disease (KHV)	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	-(2016)	+	-(2016)	III	3
10. Enteric septicaemia of catfish	-(2014)	-(2014)	-(2014)		4
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	+	-(2016)	+	III	5
2. Infection with <i>Perkinsus olseni</i>	-(2016)	+	+	III	6
3. Infection with abalone herpesvirus	-(2011)	-(2011)	-(2011)		7
4. Infection with <i>Xenohaliotis californiensis</i>	0000	0000	0000		
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000		
7. Acute viral necrosis (in scallops)	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000		
2. White spot disease (WSD)	0000	0000	0000		
3. Yellowhead disease (YHD)	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	-(2015)	-(2015)	-(2015)		8
5. Infectious myonecrosis (IMN)	0000	0000	0000		
6. White tail disease (MrNV)	-(2008)	-(2008)	-(2008)		9
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000		
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000		
9. Crayfish plague	0000	0000	0000		
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	0000	0000	0000		
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	0000	0000	0000		

*Member of NACA's Asia Regional Aquatic Animal Health Programme

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-(2008)	-(2008)	-(2008)		10
2. Infection with <i>Batrachochytrium dendrobatidis</i>	-(2013)	-(2013)	-(2013)		11
ANY OTHER DISEASES OF IMPORTANCE					
1.					

**DISEASES PRESUMED EXOTIC TO THE REGION^b
LISTED BY THE OIE**

Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with *Gyrodactylus salaris*.

Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.

Crustaceans: Crayfish plague (*Aphanomyces astaci*).

NOT LISTED BY THE OIE

Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available
?	Suspected by reporting officer but presence not confirmed	0000	Never reported
+()	Occurrence limited to certain zones	-	Not reported (but disease is known to occur)
+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

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

Comment No.	
1	Epizootic haematopoietic necrosis was not reported this period despite passive surveillance in Victoria (last reported 2012), the Australian Capital Territory (last reported 2011), New South Wales (last reported 2009) and South Australia (last reported 1992). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Western Australia.
2	Infection with <i>Aphanomyces invadans</i> (EUS) was not reported this period despite passive surveillance in New South Wales (last reported march 2016), Queensland (last reported 2014), Western Australia (last reported 2013), the Northern Territory (last reported 2012), Victoria (last reported 2012), and South Australia (last reported 2008). Passive surveillance and never reported in Tasmania. No information available in the Australian Capital Territory.

<p>3</p>	<p>Viral encephalopathy and retinopathy</p> <ol style="list-style-type: none"> 1. Reported in Queensland in August; passive surveillance; 2. Species affected – 29 day-old barramundi (<i>Lates calcarifer</i>); 3. Clinical signs – barramundi pale and drifting on their sides at the water surface, inappetant; 4. Pathogen – Betanodavirus; 5. Mortality rate –N/A; 6. Economic loss – N/A; 7. Geographic extent – one tank in one hatchery; 8. Containment measures –N/A; 9. Laboratory confirmation – histopathology, betanovirus real time PCR, isolation in cell culture; 10. Publications – None. <p>Viral encephalopathy and retinopathy is known to have occurred previously in the Northern Territory (last reported 2013), Western Australia (last reported 2013), New South Wales (last reported 2010), South Australia (last reported 2010) and Tasmania (last reported 2000). Passive surveillance and never reported in Victoria. No information available in the Australian Capital Territory.</p>
<p>4</p>	<p>Enteric septicaemia of catfish (<i>Edwardsiella ictaluri</i>) has been reported from clinically normal fish from a single river in Queensland (October 2014). This is the only occurrence of <i>E. ictaluri</i> in wild fish populations in Australia. Active surveillance throughout Northern Australia has found no evidence of <i>E. ictaluri</i> in any other wild fish populations. <i>E. ictaluri</i> has been detected previously in association with imported ornamental fish including: Northern Territory in closed aquarium (last reported 2011) and in PC2 containment facilities in Tasmania (last reported 2001) and Queensland (last reported 2008). Passive surveillance and never reported in New South Wales, South Australia, Victoria or Western Australia. No information available this period in the Australian Capital Territory.</p>
<p>5</p>	<p>Infection with <i>Bonamia exitiosa</i></p> <ol style="list-style-type: none"> 1. Reported in South Australia in July 2016 and Western Australia in September 2016; targeted surveillance; 2. Species affected – native oysters (<i>Ostrea angasi</i>); 3. Clinical signs – sub-clinical; 4. Pathogen – <i>Bonamia exitiosa</i>; 5. Mortality rate – nil; 6. Economic loss – N/A; 7. Geographic extent – South Australia and Western Australia; 8. Containment measures – N/A; 9. Laboratory confirmation – PCR; 10. Publications – nil. <p>Infection with <i>Bonamia exitiosa</i> was not reported this period despite passive surveillance in Victoria (last reported January 2016). Passive surveillance in Queensland, New South Wales, Tasmania and Northern Territory. No information available for the Australian Capital Territory (no marine water responsibility).</p>

6	<p>Infection with <i>Perkinsus olseni</i></p> <ol style="list-style-type: none"> 1. Reported in South Australia in August 2016, passive surveillance; and Western Australia in September 2016, targeted surveillance; 2. Species affected – wild greenlip abalone (<i>Haliotis laevis</i>) and blacklip abalone (<i>H. rubra</i>) in South Australia, farmed greenlip abalone in Western Australia; 3. Clinical signs – low level clinical signs (no mortality) in South Australia, sub-clinical infection in Western Australia; 4. Pathogen – <i>Perkinsus olseni</i>; 5. Mortality rate – nil; 6. Economic loss – N/A; 7. Geographic extent – South Australia (Central and Western zone fisheries only) and Western Australia; 8. Containment measures – N/A; 9. Laboratory confirmation – RFTM; 10. Publications – None. <p><i>Perkinsus olseni</i> was not reported this period despite passive surveillance in Victoria (last reported March 2015 in <i>Ostrea angasi</i>), Queensland (last reported 2014), South Australia (last reported 2013), and New South Wales (last reported 2005). Passive surveillance and never reported in the Northern Territory and Tasmania. No information available for the Australian Capital Territory (susceptible species not present and no marine water responsibility).</p>
7	<p>Infection with abalone herpesvirus (abalone viral ganglioneuritis) was not reported this period despite passive surveillance in Tasmania (last reported 2011), New South Wales (last reported 2011 and eradicated following detection in contained commercial live-holding facilities), and Victoria (last reported 2010). Passive surveillance and never reported in the Northern Territory, Queensland, South Australia and Western Australia. No information available this period for the Australian Capital Territory (no marine water responsibility).</p>
8	<p>Infectious hypodermal and haematopoietic necrosis virus (IHHNV) was not reported this period but is known to have occurred previously in Queensland (last reported December 2015) and the Northern Territory (last reported 2003). Passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available this period in the Australian Capital Territory (no marine responsibility) and Tasmania (susceptible species not present).</p>
9	<p>White tail disease was not reported this period despite passive surveillance in Queensland (last reported 2008). Passive surveillance and never reported from the Australian Capital Territory, New South Wales, the Northern Territory, South Australia, Victoria and Western Australia. No information available this period in Tasmania (susceptible species not present).</p>
10	<p>Infection with ranavirus was not reported this period despite passive surveillance in the Northern Territory (last reported 2008, prior to official reporting for ranavirus). Suspected but not confirmed through passive surveillance in Queensland. Passive surveillance and never reported in Tasmania. No information available this period in the Australian Capital Territory, New South Wales, South Australia, Victoria and Western Australia.</p>
11	<p>Infection with <i>Batrachochytrium dendrobatidis</i> was not reported this period despite passive surveillance in Tasmania (last reported 2013), Victoria (last reported 2011) and Western Australia (last reported 2008). Suspected but not confirmed through passive surveillance in Queensland. No information available this period in the Australian Capital Territory, New South Wales, the Northern Territory, and South Australia.</p>

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

Queensland has implemented a biosecurity protocol that specifies PCR tests be done on *Penaeus monodon* adults imported from the Northern Territory. Tests for Taura syndrome, WSSV, YHV, AHPND and GAV are conducted.

The AQUAVETPLAN disease stragy manual for Whirling disease has been revised and was published in August 2016 on the Department of Agriculture and Water Resources website (<http://www.agriculture.gov.au/animal/aquatic/aquavetplan>).

Country: **HONG KONG SAR, CHINA***

 Period: **July - September 2016**

Item	Disease status ^{a/}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	II	
2. Infectious haematopoietic necrosis	0000	0000	0000	III	
3. Spring viraemia of carp (SVC)	0000	0000	0000	III	
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000	III	
5. Infection with <i>Aphanomyces invadans</i> (EUS)	0000	0000	0000	III	
6. Red seabream iridoviral disease (RSID)	-	-	-	III	
7. Koi herpesvirus disease (KHV)	-	-	-	III	1
Non OIE-listed diseases					
8. Grouper iridoviral disease	-	-	-	III	
9. Viral encephalopathy and retinopathy	-	-	-	III	
10. Enteric septicaemia of catfish	0000	0000	0000	II	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	II	
2. Infection with <i>Perkinsus olseni</i>	0000	0000	0000	II	
3. Infection with abalone herpesvirus	0000	0000	0000	II	
4. Infection with <i>Xenohaliotis californiensis</i>	0000	0000	0000	II	
5. Infection with <i>Bonamia ostreae</i>	***	***	***		
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000	II	
7. Acute viral necrosis (in scallops)	0000	0000	0000	II	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	III	
2. White spot disease (WSD)	-	-	-	III	
3. Yellowhead disease (YHD)	0000	0000	0000	III	
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	0000	0000	0000	II	
5. Infectious myonecrosis (IMN)	0000	0000	0000	II	
6. White tail disease (MrNV)	0000	0000	0000	II	
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	II	
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000		
9. Crayfish plague					
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	0000	0000	0000	II	
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	***	***	***		

*Member of NACA's Asia Regional Aquatic Animal Health Programme

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000	II	
2. Infection with <i>Batrachochytrium dendrobatidis</i>	0000	0000	0000	II	
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>																							
<p>a/ Please use the following symbols:</p> <table border="0"> <tr> <td style="padding-right: 20px;">+</td> <td style="padding-right: 20px;">Disease reported or known to be present</td> <td style="padding-right: 20px;">?()</td> <td>Presence of the disease suspected but not confirmed in a zone</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td>+()</td> <td>Occurrence limited to certain zones</td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td>+?()</td> <td>Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease</td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </table>				+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone	+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available	?	Suspected by reporting officer but presence not confirmed	0000	Never reported	+()	Occurrence limited to certain zones	-	Not reported (but disease is known to occur)	+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence
+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone																				
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available																				
?	Suspected by reporting officer but presence not confirmed	0000	Never reported																				
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+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence																				
<p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>																							

1. Epidemiological comments:

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

Comment No.	
1	
2	
3	

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

Country: **INDIA***

 Period: **July - September 2016**

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp (SVC)	0000	0000	0000		
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	-	-	-		
6. Red seabream iridoviral disease (RSID)	0000	0000	0000		
7. Koi herpesvirus disease (KHV)	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	+	-	-	III	1
10. Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000		
2. Infection with <i>Perkinsus olseni</i>	+	+	+	II,III	2
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with <i>Xenohaliotis californiensis</i>	0000	0000	0000		
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000		
7. Acute viral necrosis (in scallops)	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000		
2. White spot disease (WSD)	+	+	+	I, III	3,4
3. Yellowhead disease (YHD)	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	+	+	+	III	5
5. Infectious myonecrosis (IMN)	+	-	-	III	6
6. White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000		
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000		
9. Crayfish plague	0000	0000	0000		
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	-	-	-		
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	+	+	+	III	7

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with <i>Batrachochytrium dendrobatidis</i>	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus; Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>			
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<p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>			

1. Epidemiological comments:

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

Comment No.	
1	Viral encephalopathy and retinopathy virus was detected from wild Asian seabass collected from Kakkip, West Bengal; Balasore, Odisha and Colaba, Maharashtra.
2	Infection with <i>Perkinsus olseni</i> reported in <i>Perna viridis</i> from Kozhikode and Ernakulam Districts; <i>Paphia malabarica</i> from Kollam and Kozhikode districts; <i>Arca</i> sp. From Kollam district of Kerala.
3	WSSV was detected in <i>Penaeus monodon</i> in North 24 Parganas and Purba Medinipur Districts of West Bengal; and Thrissur District of Kerala. It was also detected in <i>P. vannamei</i> from Nagapattinam, Thoothukudi and Cuddalore Districts of Tamil Nadu; East Godavari, West Godavari, Visakhapatnam, Srikakulam and Vizianagaram Districts of Andhra Pradesh; Balasore, Bhadrak and Jagatsinghpur Districts of Odisha; Uttar Kannad District of Karnataka; Ernakulam District of Kerala; and North 24 Parganas and Purba Medinipur Districts of West Bengal.

4	WSSV was also reported on the basis of gross clinical signs from <i>P. vannamei</i> in Valsad District of Gujarat; Raigarh District of Maharashtra; and Nellore, Krishna, Prakasam and Guntur Districts of Andhra Pradesh.
5	IHHNV was detected in <i>P. vannamei</i> from East Godavari and West Godavari Districts of Andhra Pradesh.
6	IMNV was detected from only one farm culturing <i>P. vannamei</i> in Purba Medinipur District of West Bengal.
7	Infection with <i>Enterocytozoon hepatopanaei</i> reported in <i>P. vannamei</i> from East Godavari, West Godavari, Visakhapatnam, Vizayanagaram, Srikakulam, Nellore, Guntur and Krishna Districts of Andhra Pradesh; Belasore, Bhadrak and Puri Districts of Odisha; Kanchipuram, Villupuram, Nagapattinam, Thanjavur and Pudukkottai Districts of Tamil Nadu; Purba Medinipur and North 24 Parganas Districts of West Bengal; Hissar and Rohtak Districts of Haryana; and Surat District of Gujarat.

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

Country: **JAPAN***

 Period: **July - September 2016**

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	I	
2. Infectious haematopoietic necrosis	+	+	+	I, III	1
3. Spring viraemia of carp (SVC)	0000	0000	0000	I	
4. Viral haemorrhagic septicaemia (VHS)	-(2016)	-(2016)	-(2016)	I	
5. Infection with <i>Aphanomyces invadans</i> (EUS)	-(2015)	-(2015)	-(2015)	I	
6. Red seabream iridoviral disease (RSID)	+	+	+	II,III	2
7. Koi herpesvirus disease (KHV)	+	+	+	III	3
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000	I	
9. Viral encephalopathy and retinopathy	-(2016)	-(2016)	+	III	4
10. Enteric septicaemia of catfish	-(2010)	-(2010)	-(2010)	I	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	I	
2. Infection with <i>Perkinsus olseni</i>	-(2007)	-(2007)	-(2007)	I	
3. Infection with abalone herpesvirus	0000	0000	0000	I	
4. Infection with <i>Xenohalictis californiensis</i>	-(2015)	-(2015)	-(2015)	I	
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000	I	
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	-(2014)	-(2014)	-(2014)	I	
7. Acute viral necrosis (in scallops)	0000	0000	0000	I	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	I	
2. White spot disease (WSD)	-(2016)	-(2016)	-(2016)	I	
3. Yellowhead disease (YHD)	0000	0000	0000	I	
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	0000	0000	0000	I	
5. Infectious myonecrosis (IMN)	0000	0000	0000	I	
6. White tail disease (MrNV)	0000	0000	0000	I	
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	I	
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000	I	
9. Crayfish plague	0000	0000	0000	I	
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	0000	0000	0000	I	
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	0000	0000	0000	I	

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-(2012)	-(2012)	-(2012)	I	
2. Infection with <i>Batrachochytrium dendrobatidis</i>	-(2009)	-(2009)	-(2009)	I	
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>																							
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1. Epidemiological comments:

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

Comment No.	
1	<p>Infectious haematopoietic necrosis (IHN)</p> <ol style="list-style-type: none"> 1. Reported in 10 prefectures; 2. Species affected – Amago (<i>Onchorynchus rhodorus</i>), yamame (<i>O. masou</i>), rainbow trout (<i>O. mykiss</i>), and coho salmon (<i>O. kisutch</i>); 3. Disease characteristics – mortality, pale gills, anaemia of gills and kidney, enlargement of kidney and spleen, skin redness, blackening of the body, threadbare fins, exophthalmia; petechial haemorrhages; 4. Pathogen – Infectious haematopoietic necrosis virus; 5. Mortality rate – 1-79%; 6. Economic loss –; 7. Geographic extent – Honshu and Kyushu; 8. Preventive/control measures – movement restriction; feed restriction; isolation of infected fish, culling of dead fish; 9. Laboratory confirmation – gross clinical observation, PCR, cell culture and isolation of the virus by prefectural research laboratories; 10. Publications – None.

2	<p>Red seabream iridoviral disease (RSID)</p> <ol style="list-style-type: none"> 1. Reported in 11 prefectures; 2. Species affected – red sea bream (<i>Pagrus major</i>), great amberjack (<i>Seriola dumerili</i>), amberjack (<i>S. quinqueradiata</i>), yellowtail amberjack (<i>S. lalandi</i>), Bluefin tuna (<i>Thunnus orientalis</i>), striped pigfish (<i>Parapristipoma trilineatum</i>), trevally (<i>Pseudocaranx dentex</i>), chub mackerel (<i>Scomber japonicus</i>), leatherfish (<i>Stephanolepis cirrhifer</i>); 3. Disease characteristics – mortality; petechial haemorrhages in the gills, enlargement of spleen and kidney; 4. Pathogen – Red seabream iridovirus; 5. Mortality rate – 1-99%; 6. Economic loss –; 7. Geographic extent – Honshu, Shikoku, Kyushu and Okinawa; 8. Preventive/control measures – removal of dead fish, movement restriction, feed restriction, notification concerns 9. Laboratory confirmation – histopathology, PCR or immunofluorescence antibody test by prefectural or fisheries cooperative research laboratories; 10. Publications – None.
3	<p>Koi herpesvirus disease (KHV)</p> <ol style="list-style-type: none"> 1. Reported in 7 prefectures; 2. Species affected – Koi carp (<i>Cyprinus carpio</i>) 3. Disease characteristics – mortality, pale gills, exophthalmia, abnormal swimming; 4. Pathogen – Koi herpesvirus; 5. Mortality rate – 1-80%; 6. Economic loss –; 7. Geographic extent – Honshu; 8. Preventive/control measures – movement control, culling of infected fish, disinfection of ponds, notification concerns; 9. Laboratory confirmation – PCR by National Research Institute of Aquaculture, Japan Fisheries Resource Conservation Association and/or prefectural research laboratories; 10. Publications – website of Ministry of Agriculture, Forestry and Fisheries (MAFF) and prefectures.
4	<p>Viral encephalopathy and retinopathy (VER)</p> <ol style="list-style-type: none"> 1. Reported in 1 prefecture; 2. Species affected – grouper (<i>Epinephelus septemfasciatus</i>); 3. Disease characteristics – mortality, abnormal swimming; 4. Pathogen – Betanodavirus; 5. Mortality rate – 1-37%; 6. Economic loss –; 7. Geographic extent – Honshu; 8. Preventive/control measures – notification concerns, vaccination; 9. Laboratory confirmation – PCR by prefectural research laboratories; 10. Publications – None.

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

Country: **MALAYSIA***

 Period: **April - June 2016**

Item	Disease status ^{at}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	April	May	June		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000	I,II,III	
3. Spring viraemia of carp (SVC)	0000	0000	0000	I,II,III	1
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000	I,II,III	
5. Infection with <i>Aphanomyces invadans</i> (EUS)	(1986)	(1986)	(1986)	I,II	
6. Red seabream iridoviral disease (RSID)	-	-	-	I,II,III	2
7. Koi herpesvirus disease (KHV)	-	-	-	I,II,III	3
Non OIE-listed diseases					
8. Grouper iridoviral disease	-	-	-	III	4
9. Viral encephalopathy and retinopathy	-	-	-	III	5
10. Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases	0000	0000	0000		
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	III	
2. Infection with <i>Perkinsus olseni</i>	0000	0000	0000		
3. Infection with abalone herpesvirus					
4. Infection with <i>Xenohaliotis californiensis</i>					
5. Infection with <i>Bonamia ostreae</i>					
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000		
7. Acute viral necrosis (in scallops)	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	-	-	-	I,III	6
2. White spot disease (WSD)	-	-	-	I,III	7
3. Yellowhead disease (YHD)	-	-	-	I,III	8
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	-	-	+	I,III	9
5. Infectious myonecrosis (IMN)	-	-	-	I,III	10
6. White tail disease (MrNV)	-	-	-	I,III	11
7. Necrotising hepatopancreatitis (NHP)	-	-	-	I,III	12
8. Acute hepatopancreatic necrosis disease (AHPND)	-	-	-		
9. Crayfish plague	0000	0000	0000		
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	0000	0000	0000		
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	0000	0000	0000		

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-	-	-		
2. Infection with <i>Batrachochytrium dendrobatidis</i>	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>																					
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1. Epidemiological comments:

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

Comment No.	
1	<p>Spring viremia of carp No positive case was detected during DoF active surveillance programme.</p>
2	<p>Red seabream iridovirus diseases (RSID) No positive case was detected during DoF active surveillance programme.</p>
3	<p>Koi herpesvirus disease (KHV) No positive case was detected during DoF active surveillance programme.</p>
4	<p>Grouper iridoviral disease (GIV) No positive case was detected during DoF active surveillance programme.</p>

5	Viral encephalopathy and retinopathy No positive case was detected during DoF active surveillance programme.
6	Taura syndrome virus (TSV) (<i>Penaeus monodon</i> and <i>P. vannamei</i>) No positive case was detected during DoF active surveillance programme.
7	White spot syndrome virus (WSSV) No positive case was detected during DoF active surveillance programme.
8	Yellow head disease (YHV) (<i>P. monodon</i> and <i>P. vannamei</i>) No positive case was detected during DoF active surveillance programme.
9	Infectious hypodermal and haematopoietic necrosis virus (IHHNV) (<i>Macrobrachium rosenbergii</i> , <i>P. monodon</i> and <i>P. vannamei</i>) One (1) positive case was detected during DoF active surveillance programme. Affected at PL12 stage and all batch from 4 tanks were destroyed.
10	Infectious myonecrosis (IMNV) No positive case was detected during DoF active surveillance programme.
11	<i>Macrobrachium rosenbergii</i> nodavirus (MrNV) No samples were tested for MrNV
12	Necrotising hepatopacreatitis (NHP) No samples were tested for NHPB

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

Country: **MYANMAR***

 Period: **July - September 2016**

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp (SVC)	***	***	***		
4. Viral haemorrhagic septicaemia (VHS)	***	***	***		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	***	***	***		
6. Red seabream iridoviral disease (RSID)	***	***	***		
7. Koi herpesvirus disease (KHV)					
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	***	***	***		
10. Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	/	/	/		
2. Infection with <i>Perkinsus olseni</i>	/	/	/		
3. Infection with abalone herpesvirus	/	/	/		
4. Infection with <i>Xenohaliotis californiensis</i>	/	/	/		
5. Infection with <i>Bonamia ostreae</i>					
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	/	/	/		
7. Acute viral necrosis (in scallops)	/	/	/		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	-	-	-	III	1
2. White spot disease (WSD)	-	-	-	III	
3. Yellowhead disease (YHD)	-	-	-	III	
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	-	-	-	III	
5. Infectious myonecrosis (IMN)	***	***	***		
6. White tail disease (MrNV)	-	-	-	III	
7. Necrotising hepatopancreatitis (NHP)	***	***	***		
8. Acute hepatopancreatic necrosis disease (AHPND)	-	-	-	III	
9. Crayfish plague					
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	***	***	***		
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)					

*Member of NACA's Asia Regional Aquatic Animal Health Programme

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus					
2. Infection with <i>Batrachochytrium dendrobatidis</i>					
ANY OTHER DISEASES OF IMPORTANCE					
1. Parasitic disease					2
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>																					
<p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tbody> <tr> <td style="width: 15%; vertical-align: top;">+</td> <td style="width: 45%;">Disease reported or known to be present</td> <td style="width: 10%; vertical-align: top;">?()</td> <td style="width: 30%;">Presence of the disease suspected but not confirmed in a zone</td> </tr> <tr> <td style="vertical-align: top;">+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td style="vertical-align: top;">***</td> <td>No information available</td> </tr> <tr> <td style="vertical-align: top;">?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td style="vertical-align: top;">0000</td> <td>Never reported</td> </tr> <tr> <td style="vertical-align: top;">+()</td> <td>Occurrence limited to certain zones</td> <td style="vertical-align: top;">-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td style="vertical-align: top;">+?()</td> <td>Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease</td> <td style="vertical-align: top;">(year)</td> <td>Year of last occurrence</td> </tr> </tbody> </table>		+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone	+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available	?	Suspected by reporting officer but presence not confirmed	0000	Never reported	+()	Occurrence limited to certain zones	-	Not reported (but disease is known to occur)	+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence
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+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available																		
?	Suspected by reporting officer but presence not confirmed	0000	Never reported																		
+()	Occurrence limited to certain zones	-	Not reported (but disease is known to occur)																		
+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence																		
<p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>																					

1. Epidemiological comments:

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

Comment No.	
1	During this period, we have received 26 samples of crustaceans (4 frozen shrimp and 4 soft shell crab for export, and live PL samples of <i>P. vannamei</i> (6 samples), <i>P. monodon</i> (1 sample) and <i>M. rosenbergii</i> (11 samples) for import) for testing, and found that all samples were negative for WSSV, IHNV, MrNV, AHPND and TSV.
2	Visited some fish farms in Yangon, Mandalay and Ayeyarwaddy regions during this period. Parasitic infestations (<i>Dactylogyrus</i> spp; <i>Trichodina</i> spp.) were found in some farms due to poor water quality.
3	

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

Country: **NEW CALEDONIA**

 Period: **July - September 2016**

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp (SVC)	***	***	***		
4. Viral haemorrhagic septicaemia (VHS)	***	***	***		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	***	***	***		
6. Red seabream iridoviral disease (RSID)	***	***	***		
7. Koi herpesvirus disease (KHV)	***	***	***		
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	***	***	***		
10. Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	II	
2. Infection with <i>Perkinsus olseni</i>	0000	0000	0000	II	
3. Infection with abalone herpesvirus	0000	0000	0000	II	
4. Infection with <i>Xenohaliotis californiensis</i>	0000	0000	0000	II	
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000	II	
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	***	***	***		
7. Acute viral necrosis (in scallops)	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	III	
2. White spot disease (WSD)	0000	0000	0000	III	
3. Yellowhead disease (YHD)	0000	0000	0000	III	
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	2013	2013	2013	III	
5. Infectious myonecrosis (IMN)	0000	0000	0000	III	
6. White tail disease (MrNV)	0000	0000	0000	III	
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	III	
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000	III	
9. Crayfish plague	0000	0000	0000		
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	0000	0000	0000	III	
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	0000	0000	0000		

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with <i>Batrachochytrium dendrobatidis</i>	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>		
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<p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>		

1. Epidemiological comments:

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

Comment No.	
1	New Caledonia transmitted to OIE in March 2016 a self-declaration of free status from IHHNV. It was published in the OIE Bulletin N° 2016-2 (pages 70-73).
2	
3	

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

Country: **NEW ZEALAND**

 Period: **July - September 2016**

Item	Disease status ^{at}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	III	
2. Infectious haematopoietic necrosis	0000	0000	0000	III	
3. Spring viraemia of carp (SVC)	0000	0000	0000	III	
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000	III	
5. Infection with <i>Aphanomyces invadans</i> (EUS)	0000	0000	0000	III	
6. Red seabream iridoviral disease (RSID)	0000	0000	0000	III	
7. Koi herpesvirus disease (KHV)	0000	0000	0000	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000	III	
9. Viral encephalopathy and retinopathy	0000	0000	0000	III	
10. Enteric septicaemia of catfish	0000	0000	0000	III	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	- (2016)	- (2016)	- (2016)	III	1
2. Infection with <i>Perkinsus olseni</i>	- (2016)	- (2016)	- (2016)	III	2
3. Infection with abalone herpesvirus	0000	0000	0000	III	
4. Infection with <i>Xenohaliotis californiensis</i>	0000	0000	0000	III	
5. Infection with <i>Bonamia ostreae</i>	- (2016)	- (2016)	- (2016)	III	3
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000	III	
7. Acute viral necrosis (in scallops)	0000	0000	0000	III	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	III	
2. White spot disease (WSD)	0000	0000	0000	III	
3. Yellowhead disease (YHD)	0000	0000	0000	III	
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	0000	0000	0000	III	
5. Infectious myonecrosis (IMN)	0000	0000	0000	III	
6. White tail disease (MrNV)	0000	0000	0000	III	
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	III	
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000	III	
9. Crayfish plague	0000	0000	0000	III	
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	0000	0000	0000	III	
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	0000	0000	0000	III	

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000	III	
2. Infection with <i>Batrachochytrium dendrobatidis</i>	-(2010)	-(2010)	-(2010)	III	4
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>		
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<p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>		

1. Epidemiological comments:

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

Comment No.	
1	<p><i>Bonamia exitiosa</i> occurs in commercial oyster beds in Foveaux Strait, where it is highly prevalent and associated with mortalities in mid to late summer. It occurs intermittently around the South Island and in Wellington Harbour (bottom of the North Island), and has been previously reported in <i>Ostrea chilensis</i> from Hauraki Gulf, Tauranga, the Marlborough Sounds and Wellington Harbour. Annual monitoring of the presence of <i>B. exitiosa</i> infection is undertaken in the flat oyster (<i>O. chilensis</i>) population in the Foveaux Strait.</p>
2	<p><i>Perkinsus olseni</i> was first detected in New Zealand in 1999, in wild wedge shells (<i>Macomona liliana</i>). It was then found in wild populations of New Zealand cockles (<i>Austrovenus stutchburyi</i>), ark shells (<i>Barbatia novaezelandiae</i>) and pipi (<i>Paphies australis</i>) in 2000-2001. In July 2013, <i>P. olseni</i> was detected for the first time in farmed black foot pāua (<i>Haliotis iris</i>), a type of abalone native to New Zealand. Further detections were made in wild <i>H. iris</i> populations in 2014. These mollusc species occur widely around the coast of New Zealand, but to date <i>P. olseni</i> has only been detected in these species from the Auckland region northwards. <i>P. olseni</i> was found for the first time on the South Island in New Zealand green lipped mussels (<i>Perna canaliculus</i>) in a land based aquaculture facility in September 2014, and then in wild New Zealand scallops (<i>Pecten novaezelandiae</i>) in November 2014. Both of these findings were in the Marlborough region, and were incidental and not associated with mortality events.</p>

3	<p><i>Bonamia ostreae</i> was detected for the first time in New Zealand flat oysters (<i>Ostrea chilensis</i>) in January 2015 on one land based aquaculture facility in the upper South Island and on two marine oyster farms in the Marlborough Sounds (in the northern part of the South Island). New Zealand initiated a response with the objectives of restricting the spread and determining the geographical extent of the infection. Movement controls have been established to regulate the movement of susceptible shellfish species from the upper South Island to the key flat oyster areas of Southland, Otago and the Chatham Islands. Ongoing surveillance detected Infection with <i>Bonamia ostreae</i> in wild flat oysters within a movement control area in May of 2016, no clinical signs were associated with the finding.</p>
4	<p>The first isolation of <i>Batrachomyxium dendrobatidis</i> was made in 1999 in New Zealand. Since then the fungus has been detected both on the North and South Islands in both native and introduced frog species. It is not certain what level of population decline if any, is associated with the presence of the fungus in native frogs.</p>

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

Country: **SINGAPORE***

 Period: **July - September 2016**

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp (SVC)	0000	0000	0000		
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease (RSID)	(2015)	(2015)	+	III	1
7. Koi herpesvirus disease (KHV)	(2015)	(2015)	(2015)		
Non OIE-listed diseases					
8. Grouper iridoviral disease	(2014)	(2014)	(2014)		
9. Viral encephalopathy and retinopathy	(2016)	(2016)	+	II, III	2
10. Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	***	***	***		
2. Infection with <i>Perkinsus olseni</i>	***	***	***		
3. Infection with abalone herpesvirus	***	***	***		
4. Infection with <i>Xenohalotis californiensis</i>	***	***	***		
5. Infection with <i>Bonamia ostreae</i>	***	***	***		
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	***	***	***		
7. Acute viral necrosis (in scallops)	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000		
2. White spot disease (WSD)	(2016)	(2016)	(2016)		
3. Yellowhead disease (YHD)	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	0000	0000	0000		
5. Infectious myonecrosis (IMN)	0000	0000	0000		
6. White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000		
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000		
9. Crayfish plague	****	****	****		
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	****	****	****		
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	****	****	****		

*Member of NACA's Asia Regional Aquatic Animal Health Programme

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	****	****	****		
2. Infection with <i>Batrachochytrium dendrobatidis</i>	(2016)	(2016)	(2016)		
ANY OTHER DISEASES OF IMPORTANCE					
1. Megalocytivirus (marine and ornamental fish)	(2016)	(2016)	+	III	3
2. <i>Aeromonas salmonicida</i> (in goldfish)	0000	0000	0000		

DISEASES PRESUMED EXOTIC TO THE REGION^b	
LISTED BY THE OIE	
Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus; Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i> .	
Molluscs: Infection with <i>Bonamia ostreae</i> ; <i>Marteilia refringens</i> ; <i>Perkinsus marinus</i> .	
Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>).	
NOT LISTED BY THE OIE	
Finfish: Channel catfish virus disease	
a/ Please use the following symbols:	
+ Disease reported or known to be present	?() Presence of the disease suspected but not confirmed in a zone
+? Serological evidence and/or isolation of causative agent but no clinical diseases	*** No information available
? Suspected by reporting officer but presence not confirmed	0000 Never reported
+() Occurrence limited to certain zones	- Not reported (but disease is known to occur)
+?() Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year) Year of last occurrence
b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases	

1. Epidemiological comments:

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

Comment No.	
1	Red Seabream Iridovirus (RSIV) was detected by PCR in a batch of Asian seabass intended for export. Following the detection, the intended export was cancelled. As the fish are clinically healthy, the farm is currently growing out the batch for the local market.
2	Viral Nervous Necrosis Virus (VNNV) was detected by real-time RT-PCR in a batch of diseased hybrid grouper from a floating net-cage farm on RAS. The farm reduced stocking density, increased aeration and administered ectoparasite treatment.

3	Megalocytivirus was detected by real-time PCR in healthy ornamental fish (Fighting fish) from exporter's premises.
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2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: **TAIPEI CHINA**

 Period: **July - September 2016**

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp (SVC)	***	***	***		
4. Viral haemorrhagic septicaemia (VHS)	***	***	***		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	-	-	-		
6. Red seabream iridoviral disease (RSID)	-	-	-		
7. Koi herpesvirus disease (KHV)	-	-	+	LDCCs	1
Non OIE-listed diseases					
8. Grouper iridoviral disease	+	+	+	LDCCs	2
9. Viral encephalopathy and retinopathy	+	+	+	LDCCs	3
10. Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	***	***	***		
2. Infection with <i>Perkinsus olseni</i>	***	***	***		
3. Infection with abalone herpesvirus	-	-	-		
4. Infection with <i>Xenohaliotis californiensis</i>	***	***	***		
5. Infection with <i>Bonamia ostreae</i>	***	***	***		
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	***	***	***		
7. Acute viral necrosis (in scallops)	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	-	-	-		
2. White spot disease (WSD)	+	+	+	LDCCs	4
3. Yellowhead disease (YHD)	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+	+	+	LDCCs	5
5. Infectious myonecrosis (IMN)	***	***	***		
6. White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis (NHP)	***	***	***		
8. Acute hepatopancreatic necrosis disease (AHPND)	***	***	***		
9. Crayfish plague	-	-	+	LDCCs	6
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	***	***	***		
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	***	***	***		

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-	-	-		
2. Infection with <i>Batrachochytrium dendrobatidis</i>	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					

DISEASES PRESUMED EXOTIC TO THE REGION^b			
LISTED BY THE OIE			
Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus; Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i> .			
Molluscs: Infection with <i>Bonamia ostreae</i> ; <i>Marteilia refringens</i> ; <i>Perkinsus marinus</i> .			
Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>).			
NOT LISTED BY THE OIE			
Finfish: Channel catfish virus disease			
a/ Please use the following symbols:			
+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available
?	Suspected by reporting officer but presence not confirmed	0000	Never reported
+()	Occurrence limited to certain zones	-	Not reported (but disease is known to occur)
+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence
b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases			

1. Epidemiological comments:

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

Comment No.	
1	1. Yunlin county. 1 outbreak report from 1 farm. 2. Date: (1) Sep 2. 3. Species: (1) <i>Cyprinus carpio</i> . 4. Mortality rate: low. 5. Total number of death: (1) 0/100000.

2	<p>1. Kaohsiung city. 39 outbreak reports from 24 farms. 2. Date: (1) Jul 4; (2) Jul 5; (3) Jul 11; (4) Jul 12; (5), (6) Jul 18; (7), (8), (9), (10) Jul 19; (11) Jul 20; (12) Jul 27; (13) Aug 2; (14), (15), (16) Aug 8; (17) Aug 12; (18), (19) Aug 13; (20), (21) Aug 15; (22) Aug 16; (23) Aug 20; (24) Aug 24; (25) Aug 25; (26) Aug 30; (27), (28) Sep 1; (29) Sep 6; (30) Sep 10; (31) Sep 12; (32), (33), (34), (35) Sep 13; (36), (37) Sep 19; (38) Sep 24; (39) Sep 26. 3. Species: (1), (2), (3), (5), (6), (7), (8), (9), (10), (12), (13), (14), (17), (18), (19), (20), (22), (23), (24), (25), (26), (27), (28), (29), (30), (32), (33), (34), (36), (37), (39) <i>Lates calcarifer</i>; (4), (11), (15), (21), (35), (38) <i>Epinephelus malabaricus</i>; (31) <i>Epinephelus fuscoguttatus</i> x <i>Epinephelus lanceolatus</i>; (16) <i>Epinephelus lanceolatus</i>. 4. Mortality rate: low. 5. Total number of death: (1), (2), (3), (5), (6), (7), (8), (9), (10), (12), (13), (14), (18), (19), (20), (22), (23), (25), (26), (27), (28), (29), (30), (32), (33), (34), (36), (37), (39) 0/40000; (4), (11), (15), (21), (31), (35), (38) 0/10000; (16) 0/1000; (17) 0/50000.</p>
3	<p>1. Kaohsiung City, Pintung county, Chiayi county. 36 outbreak reports from 32 farms. 2. Date: (1) Jul 9; (2) Jul 11; (3) Jul 19; (4), (5), (6) Jul 27; (7), (8), (9) Aug 2; (10) Aug 8; (11), (12) Aug 12; (13), (14) Aug 16; (15), (16), (17) Aug 18; (18), (19) Aug 25; (20) Aug 26; (21), (22) Aug 29; (23) Aug 30; (24) Aug 31; (25), (26) Sep 1; (27) Sep 3; (28) Sep 8; (29), (30) Sep 10; (31) Sep 12; (32) Sep 19; (33), (34) Sep 26; (35), (36) Sep 30. 3. Species: (1), (2), (3), (4), (6), (7), (8), (14), (15), (17), (19), (29), (31) <i>Epinephelus malabaricus</i>; (5), (11), (16), (20), (21), (25), (28), (35), (36) <i>Epinephelus fuscoguttatus</i> x <i>Epinephelus lanceolatus</i>; (9), (10), (24) <i>Epinephelus coioides</i>; (12), (13), (18), (22), (23), (26), (27), (30), (32), (33), (34) <i>Epinephelus lanceolatus</i>. 4. Mortality rate: low. 5. Total number of death: (1), (2), (3), (4), (5), (6), (7), (8), (11), (14), (15), (16), (17), (19), (20), (25), (31), (35), (36) 0/10000; (9), (10) 0/200000; (12), (13), (18), (21), (22), (23), (26), (27), (28), (30), (32), (33), (34) 0/1000; (24) 0/93600; (29) 0/12000.</p>
4	<p>1. Tainan City, Pintung county, Chiayi county, Taitung county. 7 outbreak reports from 7 farms. 2. Date: (1) Jul 7; (2) Aug 2; (3) Aug 31; (4) Sep 9; (5) Sep 21; (6) Sep 29; (7) Sep 30. 3. Species: (1), (4), (5), (6), (7) <i>Litopenaeus vannamei</i>; (2) <i>Ornamental shrimp</i>; (3) <i>Ornamental shrimp and Litopenaeus vannamei</i> 4. Mortality rate: low. 5. Total number of death: (1) 0/50000 (2) 0/10000; (3) 0/80000; (4) 0/2000000; (5) 0/600000; (6) 0/2200000; (7) 0/200000.</p>
5	<p>1. New Taipei City, Taitung county, Chiayi county. 8 outbreak reports from 7 farms. 2. Date: (1) Jul 25; (2) Aug 3; (3) Sep 8; (4), (5), (6) Sep 10; (7), (8) Sep 12. 3. Species: (1) <i>Macrobrachium rosenbergii</i>, (2), (3), (4), (5), (6), (7), (8) <i>Litopenaeus vannamei</i>. 4. Mortality rate: low. 5. Total number of death: (1) 120/1800; (2) 0/300000; (3) 0/1200000; (4), (5), (6), (7), (8) 0/10000 .</p>
6	<p>1. Yunlin county. 1 outbreak report from 1 farm. 2. Date: (1) Sep 12. 3. Species: (1) <i>Cherax quadricarinatus</i>. 4. Mortality rate: low. 5. Total number of death: (1) 0/8000.</p>

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

Country: VIETNAM*

Period: July - September 2016

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp (SVC)	0000	0000	0000		
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	-	-	-		
6. Red seabream iridoviral disease (RSID)	0000	0000	0000		
7. Koi herpesvirus disease (KHV)	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10. Enteric septicaemia of catfish	+	+	+	I, II	1
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000		
2. Infection with <i>Perkinsus olseni</i>	-	-	-		
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with <i>Xenohaliotis californiensis</i>	0000	0000	0000		
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000		
7. Acute viral necrosis (in scallops)	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000		
2. White spot disease (WSD)	+	+	+	I, III	2
3. Yellowhead disease (YHD)	-	-	-		
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	0000	0000	0000		
5. Infectious myonecrosis (IMN)	0000	0000	0000		
6. White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000		
8. Acute hepatopancreatic necrosis disease (AHPND)	+	+	+	I, III	3
9. Crayfish plague	0000	0000	0000		
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome	-	-	-		
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	0000	0000	0000		

*Member of NACA's Asia Regional Aquatic Animal Health Programme

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with <i>Batrachochytrium dendrobatidis</i>	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>			
<p><u>a/</u> Please use the following symbols:</p>			
+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available
?	Suspected by reporting officer but presence not confirmed	0000	Never reported
+()	Occurrence limited to certain zones	-	Not reported (but disease is known to occur)
+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence
<p><u>b/</u> If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>			

1. Epidemiological comments:

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

Comment No.	
1	<p>Enteric Septicaemia of Catfish (<i>Edwardsiella ictaluri</i>)</p> <p>Infection found in intensive catfish (<i>Pangasius micronema</i>, <i>P. hypophthalmus</i>) farms. The disease occurred in An Giang, Tien Giang, Ben Tre and Dong Thap provinces (29.3 ha).</p>
2	<p>White Spot Disease (WSD)</p> <p>Pathogen: White spot syndrome virus (WSSV) Species affected: <i>Penaeus monodon</i> and <i>Litopenaeus vannamei</i> (10-100 DOC) Name of affected area: reported in 17 provinces (total area 911.32 ha) including Quang Ninh, Nghe An, Ha Tinh, Quang Binh, Binh Dinh, Phu Yen, Khanh Hoa, Ho Chi Minh, Ninh Thuan, Long An, Tien Giang, Ben Tre, Tra Vinh, Kien Giang, Soc Trang, Bac Lieu and Ca Mau. Mortality rate: average to high, 100% in some cases within 10 d. Clinical signs: lethargic or moribund shrimps aggregated at pond surface and edges, slow to erratic swimming behavior, overall body color often reddish, minute to large (0.5-2.0 mm diameter) white inclusions embedded in the cuticle; Control measures: early harvest, strict isolation of infected ponds from movement, strengthened control of transportation, disinfection of infected ponds using Calcium hypochlorite (chlorine).</p>

3	<p>Acute Hepatopancreatic Necrosis Disease (AHPND)</p> <p>Pathogen: <i>Vibrio parahaemolyticus</i> with Phage A3</p> <p>Species affected: <i>Penaeus monodon</i> and <i>Litopenaeus vannamei</i> (10-45 DOC)</p> <p>Name of affected area: reported in 23 provinces and caused losses in total shrimp culture area of 1,937 ha. Affected provinces include Quang Ninh, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Quang Nam, Binh Dinh, Phu Yen, Khanh Hoa, Ho Chi Minh, Ninh Thuan, Dong Nai, Binh Thuan, Long An, Tien Giang, Tra Vinh, Ben Tre, Kien Giang, Soc Trang, and Ca Mau.</p> <p>Mortality rate: could reach 95% in intensive and semi-intensive farms;</p> <p>Clinical signs: shrimps become lethargic with soft, darkened shells, mottling of the carapace. Pathology is limited to hepatopancreas.</p> <p>Control measures: strict isolation of infected ponds from movement and transport controls, disinfection of infected ponds using Calcium hypochlorite (chlorine).</p>
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2. New aquatic animal health regulations introduced within past six months (with effective date): None

Country: **FRENCH POLYNESIA**

 Period: **July - September 2016**

Item	Disease status ^{al}			Level of diagnosis	Epidemiological comment numbers
	Month				
DISEASES PREVALENT IN THE REGION	July	August	September		
FINFISH DISEASES					
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp (SVC)	***	***	***		
4. Viral haemorrhagic septicaemia (VHS)	***	***	***		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	***	***	***		
6. Red seabream iridoviral disease (RSID)	0000	0000	0000	III	
7. Koi herpesvirus disease (KHV)	***	***	***		
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	(2005)	(2005)	(2005)	III	1
10. Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	III	2
2. Infection with <i>Perkinsus olseni</i>	+	+	+	III	2
3. Infection with abalone herpesvirus					4
4. Infection with <i>Xenohaliotis californiensis</i>	***	***	***		
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000	III	2
Non OIE-listed diseases					
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000	II	2
7. Acute viral necrosis (in scallops)					
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	III	3
2. White spot disease (WSD)	0000	0000	0000	III	3
3. Yellowhead disease (YHD)	0000	0000	0000	III	3
4. Infectious hypodermal and haematopoietic necrosis (IHNN)	(2008)	(2008)	(2008)	III	3
5. Infectious myonecrosis (IMN)	0000	0000	0000	III	3
6. White tail disease (MrNV)	0000	0000	0000	III	3
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	III	3
8. Acute hepatopancreatic necrosis disease (AHPND)	***	***	***		
9. Crayfish plague					4
Non OIE-listed diseases					
10. <i>Monodon</i> slow growth syndrome					4
11. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)					4

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus					4
2. Infection with <i>Batrachochytrium dendrobatidis</i>					4
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

<p>DISEASES PRESUMED EXOTIC TO THE REGION^b LISTED BY THE OIE Finfish: Infection with HPR-deleted of HPR0 salmon anemia virus, Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i>. Molluscs: Infection with <i>Bonamia ostreae</i>; <i>Marteilia refringens</i>; <i>Perkinsus marinus</i>. Crustaceans: Crayfish plague (<i>Aphanomyces astaci</i>). NOT LISTED BY THE OIE Finfish: Channel catfish virus disease</p>																					
<p>a/ Please use the following symbols:</p> <table style="width: 100%; border: none;"> <tbody> <tr> <td style="width: 50%;">+</td> <td style="width: 30%;">Disease reported or known to be present</td> <td style="width: 10%;">?()</td> <td style="width: 10%;">Presence of the disease suspected but not confirmed in a zone</td> </tr> <tr> <td>+?</td> <td>Serological evidence and/or isolation of causative agent but no clinical diseases</td> <td>***</td> <td>No information available</td> </tr> <tr> <td>?</td> <td>Suspected by reporting officer but presence not confirmed</td> <td>0000</td> <td>Never reported</td> </tr> <tr> <td>+()</td> <td>Occurrence limited to certain zones</td> <td>-</td> <td>Not reported (but disease is known to occur)</td> </tr> <tr> <td>+?()</td> <td>Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease</td> <td>(year)</td> <td>Year of last occurrence</td> </tr> </tbody> </table>		+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone	+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available	?	Suspected by reporting officer but presence not confirmed	0000	Never reported	+()	Occurrence limited to certain zones	-	Not reported (but disease is known to occur)	+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence
+	Disease reported or known to be present	?()	Presence of the disease suspected but not confirmed in a zone																		
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available																		
?	Suspected by reporting officer but presence not confirmed	0000	Never reported																		
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+?()	Confirmed infection/infestation limited to one or more zones of the country, but no clinical disease	(year)	Year of last occurrence																		
<p>b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases</p>																					

1. Epidemiological comments:

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

Comment No.	
1	<p>Viral encephalopathy and retinopathy was first diagnosed in the breeders of <i>Lates calcarifer</i> (1989). In 2004, the disease caused mass mortality in <i>Platus orbicularis</i> and <i>Polydactylus sexifilis</i> breeders. Since 2005, the experimental hatchery of <i>P. orbicularis</i> is biosecured. Only broodstock (sourced from the wild) free of nodavirus are maintained. Annual check of all broodstock and larvae is made. Since 2005, no sample was found positive.</p>
2	<p>Bonamiosis and Marteiliosis: not reported since the start of active surveillance in 2003 in <i>Pinctada margaritifera</i>.</p> <p>Since January 2012, pearl oyster network has been extended to giant clam and <i>Perkinsus olseni</i> was detected by PCR in wild specimen of <i>Tridacna maxima</i> (PYF 06-12-12 OIE Alert). <i>P. olseni</i> was also detected in <i>Pinctada margaritifera</i> (OIE Report 13451, May 14th 2013).</p>

3	<p>In 2008 and 2010, a survey of all production units was conducted and samples (30/unit) were sent out for analysis to Aquaculture Pathology Laboratory, University of Arizona (Prof. Lightner). None of the important shrimp viruses was detected. Positive isolation was last reported in 2001 in <i>Penaeus vannamei</i>, a non-indigenous species which is no longer cultivated in the country and considered extinct since 2005. Similar survey was done in 2011 and 2012. In 2013, detection for TS, WSD and IHNV were done in the country, and all results were negative. No mortality was observed in <i>Litopenaeus stylirostris</i> during this period.</p>
4	<p>Susceptible species are not present in the country.</p>

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

List of Diseases in the Asia-Pacific Quarterly Aquatic Animal Disease Report (Beginning 2016)

1. DISEASES PREVALENT IN THE REGION	
1.1 FINFISH DISEASES	
OIE-listed diseases	Non OIE-listed diseases
1. Epizootic haematopoietic necrosis	1. Grouper iridoviral disease
2. Infectious haematopoietic necrosis	2. Viral encephalopathy and retinopathy
3. Spring viraemia of carp (SVC)	3. Enteric septicaemia of catfish
4. Viral haemorrhagic septicaemia (VHS)	
5. Infection with <i>Aphanomyces invadans</i> (EUS)	
6. Red seabream iridoviral disease (RSID)	
7. Koi herpesvirus disease (KHV)	
1.2 MOLLUSC DISEASES	
OIE-listed diseases	Non OIE-listed diseases
1. Infection with <i>Bonamia exitiosa</i>	1. Infection with <i>Marteilioides chungmuensis</i>
2. Infection with <i>Perkinsus olseni</i>	2. Acute viral necrosis (in scallops)
3. Infection with abalone herpesvirus	
4. Infection with <i>Xenohalotis californiensis</i>	
5. Infection with <i>Bonamia ostreae</i>	
1.3 CRUSTACEAN DISEASES	
OIE-listed diseases	Non OIE-listed diseases
1. Taura syndrome (TS)	1. Monodon slow growth syndrome
2. White spot disease (WSD)	2. Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)
3. Yellowhead disease (YHD)	
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	
5. Infectious myonecrosis (IMN)	
6. White tail disease (MrNV)	
7. Necrotising hepatopancreatitis (NHP)	
8. Acute hepatopancreatic necrosis disease (AHPND)	
9. Crayfish plague	
1.4 AMPHIBIAN DISEASES	
OIE-listed diseases	Non OIE-listed diseases
1. Infection with Ranavirus	
2. Infection with <i>Bachtracochytrium dendrobatidis</i>	
2. DISEASES PRESUMED EXOTIC TO THE REGION	
2.1 Finfish	
OIE-listed diseases	Non OIE-listed diseases
1. Infection with HPRdeleted or HPR0 salmon anaemia virus	1. Channel catfish virus disease
2. Infection with salmon pancreas disease virus	
3. Infection with <i>Gyrodactylus salaris</i>	
2.2 Molluscs	
OIE-listed diseases	Non OIE-listed diseases
1. Infection with <i>Marteilia refringens</i>	
2. Infection with <i>Perkinsus marinus</i>	

Recent Aquatic Animal Health Related Publications

OIE Aquatic Animal Health Code, 19th Edition, 2016. The OIE Aquatic Animal Health Code (the Aquatic Code) sets out standards for the improvement of aquatic animal health and welfare of farmed fish worldwide, and for safe international trade in aquatic animals (amphibians, crustaceans, fish and molluscs) and their products. The health measures in the Aquatic Code should be used by the Competent Authorities of importing and exporting countries for early detection, reporting and control of agents pathogenic to aquatic animals and to prevent their transfer via international trade in aquatic animals and their products, while avoiding unjustified sanitary barriers to trade. The standards in the Aquatic Code have been formally adopted by the World Assembly of OIE Delegates, which constitutes the organisation's highest decision-making body. This 19th edition incorporates modifications to the Aquatic Code agreed at the 84th General Session in May 2016. It includes updates of the table of contents and glossary, and revised text included in Chapter 1.1. Notification of diseases and provision of epidemiological information and Chapter 5.1. General obligations related to certification. Chapter 4.3. Disinfection of aquaculture establishments and equipment has been extensively revised and the title amended accordingly. Chapter 9.2. Infection with yellow head virus genotype 1 has been amended to clarify the scope of this chapter and the title revised accordingly. In addition, some minor consequential amendments have been made in Articles 1.4.3., 1.5.2., 2.1.4., 4.2.3. and 4.6.3. to ensure that the use of 'vector' is consistent with the new definition of 'vector'. The Aquatic Animal Health Code is available for free download <http://www.oie.int/international-standard-setting/aquatic-code/access-online/>

OIE Manual of Diagnostic Tests for Aquatic Animals, 2016. The purpose of this Manual of Diagnostic Tests for Aquatic Animals (Aquatic Manual) is to provide a uniform approach to the detection of the diseases listed in the OIE Aquatic Code, so that the requirements for health certification in connection with disease prevention and control programmes, and trade in aquatic animals and aquatic animal products can be met. Although many publications exist on the detection and control of aquatic animal diseases, the Aquatic Manual is a key and unique document describing the methods that should be applied to the OIE-listed diseases in aquatic animal health laboratories all over the world, thus increasing efficiency and promoting improvements in aquatic animal health world-wide. The requirements published in this Aquatic Manual are recognised as international standards by the WTO. The manual is available for free download at <http://www.oie.int/international-standard-setting/aquatic-manual/access-online/>

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**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 disease in question is reported or known to be present.

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

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

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

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

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

¹ Regional Advisory Group on Aquatic Animal Health (AG)

C. Levels of Diagnosis

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

D. Subjects to be covered in the Epidemiological Comments

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

IMPORTANT

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

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

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