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(Asia and Pacific Region)

April – June 2017

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Contents

Foreword

Emergency Regional Consultation for Prevention and Management of Tilapia Lake Virus (TiLV) in the Asia Pacific

The Network of Aquaculture Centres in Asia-Pacific (NACA) in collaboration with the National Fisheries Technology Extension Center (NFTEC), Ministry of Agriculture (MOA), People's Republic of China, and Sun Yat-Sen University, People's Republic of China, organized the above consultation on TiLV on 27-28 September 2017 at Sun Yat-Sen Kaifeng Hotel, Guangzhou, China. The consultation was attended by 45 foreign and local participants and the following topics were discussed:

- Overview of tilapia aquaculture in the region
- Overview and status of TiLV, and national action plans from selected tilapia-producing countries in the region;
- Implementation of proper quarantine and biosecurity measures, as well as responsible movement of live tilapias within the country and across the region;
- Strengthening of diagnostic capacities as well as active surveilance of the disease;
- Formulation of recommendations on the sanitary measures and disease prevention;
- Emergency preparedness for countries not yet affected by the disease

Keynote presentations include the following:

- Tilapia aquaculture in the Asia-Pacific Region: Status and Trends (Dr. Derun Yuan, NACA, Thailand)

- Important diseases of cultured tilapia (Prof. Jianguo He, Sun Yat-Sen University)
- The Role of Trade in Spread of Transboundary Aquatic Animal Diseases (Ed)
- Overview of TiLV (Dr. Mona Jansen; Norwegian Veterinary Institute)
- Update on TiLV research in Thailand and potential strategies for control (Dr. Ha Dong; KMUTT, Thailand)
- Virus characterization, clinical presentation and pathology of TiLV (Dr. Win Surachetpong, KU, Thailand)
- Import Risk Assessment: Role in prevention of transboundary aquatic animal diseases (Dr. Hong Liu; AQSIQ, China)
- Biosecurity: Role in aquatic animal disease prevention and control (Dr. Jie Huang; YSFRI, China)

Country representatives presented "Tilapia Health Management with Focus on Status of and National Action Plan on TiLV" including China (Dr. Li Qing), Egypt (Dr. Shimaa Elsayed Mohamed Ali), India (Dr. Pravata Pradhan), Indonesia (Ms. Ratna Amalia Kurniasih), Malaysia (Dr. Azila Binti Abdullah), Myanmar (Dr. Kay Lwin Tun), Philippines (Dr. Sonia Somga), Thailand (Ms. Jaree Polchana) and Vietnam (Dr. Pham Hong Quan).

A Panel Discussion was also undertaken during the consultation to address the following issues:

- Formulation of regional plan for prevention and control of TiLV;
- Research gap and priority
- Surveillance and reporting
- Listing in OIE
- Way forward

Panelists include representatives from regional and international organizations as well as key institutes in China including Dr. Hong Liu (AQSIQ), Prof. Jianguo He (SYSU), Dr. Yan Liang (NFTEC), Prof. Hong Yang (FFRC), Dr. Stian Jonsen (OIE), Dr. Shimaa Ali (WorldFish), Dr. Rolando Pakingking, Jr. (SEAFDEC AQD), Dr. Eduardo Leaño (NACA)

Overall, much has been learned about the status of TiLV in the region. Officially, Thailand and Malaysia has reported the presence of TiLV in OIE, while India also confirmed the presence and in the process of finalizing the official report to OIE. Thus at present, TiLV is now found in four countries in the region including Thailand, Chinese Taipei, Malaysia and India. Surveillance programmes on TiLV are now being implemented in China (reported that TiLV is still not detected from the samples that they collected and analyzed), Indonesia, the Philippines and Vietnam. As endorsed by the 16th AG of NACA, TiLV will be included in the QAAD list of disease from January 2018.

A short proceedings of the regional consultation is being planned to be prepared by NACA and NFTEC which will be published online at NACA website.

Reports Received by the NACA and OIE-RRAP

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

Country: AUSTRALIA* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (EUS)	-(2016)	+	-(2017)	III	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	-(2017)	-(2017)	-(2017)		3
10.Enteric septicaemia of catfish	-(2014)	-(2014)	-(2014)		4
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	-(2017)	-(2017)	+?	III	5
2. Infection with *Perkinsus olseni*	+	+	-(2017)	II	6
3. Infection with abalone herpesvirus	-(2011)	-(2011)	-(2011)		7
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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)	+ (S.E QLD)	-(2017)	-(2017)	III	8
3. Yellowhead disease (YHD)	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	-(2017)	+	-(2017)	III	9
5. Infectious myonecrosis (IMN)	0000	0000	0000		
6. White tail disease (MrNV)	-(2008)	-(2008)	-(2008)		10
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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	0000	0000	0000		
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-(2008)	-(2008)	-(2008)		11
2. Infection with *Batrachochytrium dendrobatidis*	-(2016)	-(2016)	-(2016)		12
ANY OTHER DISEASES OF IMPORTANCE					
1. *Hepatopancreatitis* in prawns					
2. *Tenacibaculum dicentrarchi*					

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 *Aphanomyces invadans* (EUS)** 1. **Reported in Northern Territory** in May 2017; passive surveillance; 2. **Species affected** – Spangled grunter (*Leiopotherapon unicolor*) sub-adult, 10-15 cm in length; 3. **Clinical signs** – clinical; 4. **Pathogen** – *Aphanomyces invadans*; 5. **Mortality rate** – unknown; 6. **Economic loss** – N/A; 7. **Geographic extent** – one wild fish species in Adelaide River system; 8. **Containment measures** – movement control; 9. **Laboratory confirmation** – histopathology, PCR; 10. **Publications** – None. Infection with Aphanomyces inavadans is known to have occurred in New South Wales (last reported march 2016), Queensland (last reported 2014), Western Australia (last reported 2013), Victoria (last reported 2012), and South Australia (last reported 2008). Passive surveillance and never reported in Tasmania. No information available in the Australian Capital Territory.
3	**Viral encephalopathy and retinopathy** was not reported this period despite passive surveillance in Queensland (last reported in February 2017), Western Australia (last reported 2013), South Australia (last reported 2010) and Tasmania (last reported 2000). Targeted surveillance and not reported this period in New South Wales (last reported 2016). Passive surveillance and never reported in Victoria. No information available this period in the Australian Capital Territory.
4	**Enteric septicaemia of catfish** (*Edwardsiella ictaluri*) was not reported this period despite pasive surveillance. It was reported from clinically normal fish from a single river in Queensland (October 2014). The only occurrence of E. ictaluri in wild fish populations in Australia. Active surveillance throughout Northern Australia has found no evidence of E. ictaluri in any other wild fish populations. E. ictaluri has been detected previously in association with imported ornamental fish including: Northern Territory in a 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.
5	**Infection with *Bonamia exitiosa*** 1. **Reported in South Australia** in June 2017, targeted surveillance; 2. **Species affected** – flat oysters (*Ostrea angasi*); 3. **Clinical signs** – none; 4. **Pathogen** – *Bonamia exitiosa*; 5. **Mortality rate** – none; 6. **Economic loss** – N/A; 7. **Geographic extent** – Coffin Bay, Streaky Bay, Cowell; 8. **Containment measures** – N/A; 9. **Laboratory confirmation** – qPCR, tissue smears, 10. **Publications** – nil. Infection with *Bonamia exitiosa* is known to have occurred previously in Western Australia (last reported February 2017) and Victoria (last reported January 2016). Passive surveillance and never reported in Queensland, New South Wales, Tasmania and Northern Territory. No information available for the Australian Capital Territory (no marine water responsibility).

6	**Infection with *Perkinsus olseni*** 1. **Reported in South Australia** in April 2017, passive surveillance; **Western Australia** in May 2017, targeted surveillance; 2. **Species affected** – wild Roe's abalone (Haliotis roei) in South Australia, farmed greenlip abalone (*Haliotis laevigata*) in Western Australia; 3. **Clinical signs** – clinical in South Australia; subclinical in Western Australia; 4. **Pathogen** – *Perkinsus olseni*; 5. **Mortality rate** – N/A in Western Australia; none in South Australia; 6. **Economic loss** – 700 kg commercially harvested abalone in South Australia; N/A in Western Australia; 7. **Geographic extent** –western zone fisheries in South Australia; a farm in Western Australia; 8. **Containment measures** – ceased fishing in the localized affected area in South Australia; N/A in Western Australia;; 9. **Laboratory confirmation** – histopathology, RFTM; 10. **Publications** – None. *Perkinsus olseni* is know to have occurred previously in South Australia and Western Australia (last reported in February 2017). Passive surveillance in Victoria (last reported 2015), Queensland (last reported 2014), 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 (no marine water responsibility).
7	**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).
8	**White Spot Disease** 1. **Reported in Queensland** in April 2017, targeted surveillance; 2. **Species affected** – wild *Penaeus* spp. and *Metapeneaues* spp.; 3. **Clinical signs** – none; 4. **Pathogen** – White spot syndrome virus; 5. **Mortality rate** – none; 6. **Economic loss** – N/A; 7. **Geographic extent** –Moreton Bay area (Queensland white spot movement restriction area); 8. **Containment measures** – white spot movement restrictions, fishing restrictions; 9. **Laboratory confirmation** – RT-PCR; 10. **Publications** – **O**IE notifications. White spot disease was confirmed from a farm on the Logan River Catchment in South East Queensland on 1 December 2016. An emergency disease response to contain and eradicate the disease is ongoing. A movement control order has been implemented over the affected area of South East Queensland. White spot disease has never been reported despite active and passive surveillance in New South Wales, South Australia, Western Australia and Northern Territory. Passive surveillance and never reported in Victoria and Tasmania. No information available for the Australian Capital Territory (no marine water responsibility).

9	**Infectious hypodermal and haematopoietic necrosis virus (IHHNV)** 1. **Reported in Queensland** in March 2017, passive surveillance; 2. **Species affected** – giant tiger prawn (*Penaeus monodon*) 4 months; 3. **Clinical signs** – lo levels of mortalities; 4. **Pathogen** – IHHN; 5. **Mortality rate** – low levels of mortality; 6. **Economic loss** – N/A; 7. **Geographic extent** – one farm; 8. **Containment measures** – N/A; 9. **Laboratory confirmation** – PCR, histology; 10. **Publications** – nil. Infectious hypodermal and haematopoietic necrosis virus was known to have previously occurred in 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 water responsibility) and Tasmania (susceptible species not present).
10	**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).
11	**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.
12	**Infection with Batrachochytrium dendrobatidis** was not reported this period despite passive surveillance in Victoria (last reported October 2016), Tasmania (last reported 2013), New South Wales (last reported 2012), Western Australia (last reported 2008) and Queensland (last reported 2004). Passive surveillance and never reported from the Northern Territory. No information available this period in the Australian Capital Territory and South Australia.

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

Biosecurity Advice (2017/12) announced on 30 June 2017, under the Biosecurity Act 2015, trade in uncooked prawns (including marinated prawns and Australian prawns processed overseas in a non-Australian government audited supply chain) would resume under the enhanced import conditions from 7 July 2017. These prawns will be subject to strict testing requirements to ensure biosecurity risks are managed.

Queensland has implemented a new white spot biosecurity regulation that maintains movement restrictions for high-risk animals such as prawns, yabbies and marine worms out of the white spot movement restriction area. Under the new regulation an exemption now exists for low-risk species such as crabs, lobster and bugs. Fishing is also prohibited near land-based prawn farms and waterways within the movement restriction area.

Country: CHINESE TAIPEI **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (EUS)	-	-	-		
6. Red seabream iridoviral disease (RSID)	-	-	+	LDCCs	1
7. Koi herpesvirus disease (KHV)	+	+	-	LDCCs	2
Non OIE-listed diseases					
8. Grouper iridoviral disease	+	+	+	LDCCs	3
9. Viral encephalopathy and retinopathy	+	+	+	LDCCs	4
10.Enteric septicaemia of catfish	***	***	***		
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpesvirus	-	-	-		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
5. Infection with *Bonamia ostreae*	***	***	***		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	***	***	***		
7. Acute viral necrosis (in scallops)	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	-	-	-		
2. White spot disease (WSD)	+	+	+	LDCCs	5
3. Yellowhead disease (YHD)	-	-	-		
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+	-	-	LDCCs	6
5. Infectious myonecrosis (IMN)	***	***	***		
6. White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis (NHP)	***	***	***		
8. Acute hepatopancreatic necrosis disease (AHPND)	***	***	***		
9. Crayfish plague	-	-	-		
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	***	***	***		
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-	-	-		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
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 *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	**Red Seabream Iridoviral Disease (RSID)** 1. Chiayi county. 6 outbreak reports from 6 farms. 2. Date: (1) Jun 9; (2) (3) (4) (5)Jun 26; (6) Jun 30. 3. Species: (1), (2), (3), (4), (5), (6) Lates calcarifer. 4. Mortality rate: low. 5. Total number of death: (1), (2) 0/15000; (3) 0/20000; (4) 0/8000; (5) 0/30000; (6) 0/36000.
2	**Koi Herpesvirus Disease (KHV)** 1. Pingtung county, Yunlin county. 2 outbreak reports from 2 farms. 2. Date: (1) Apr 7; (2) May 5. 3. Species: (1) Ornamental fish; (2) *Cyprinus carpio*. 4. Mortality rate: low. 5. Total number of death: (1) 0/2000; (2) 0/200000.

3	**Grouper Iridoviral Disease** 1. Kaohsiung city. 64 outbreak reports from 44 farms. 2. Date: (1) Apr 11; (2) Apr 26; (3), (4) May 9; (5), (6) May 19; (7), (8), (9), (10), (11), (12), (13), (14), (15), (16), (17), (18) May 23; (19), (20), (21) May 24; (22), (23), (24), (25), (26), (27) May 25; (28), (29), (30), (31), (32) May 31; (33), (34), (35), (36) Jun 1; (37), (38) Jun 2; (39), (40) Jun 3; (41), (42) Jun 5; (43) Jun 6; (44), (45), (46), (47) Jun 7; (48) Jun 12; (49), (50), (51) Jun 15; (52) Jun 19; (53) Jun 22; (54), (55), (56), (57) Jun 23; (58), (59), (60) Jun 26; (61), (62), (63) Jun 27; (64) Jun 28. 3. Species: (1)~(64) except (46), *Lates calcarifer*; (46) *Epinephelus malabaricus*. 4. Mortality rate: low. 5. Total number of death: (1) (2), (5), (6), (11), (14), (15), (16), (17), (19), (20), (21), (23), (25), (28), (29), (30), (31), (32), (33), (34), (35), (36), (38), (39), (40), (43), (44), (45), (47), (48), (49), (53), (54), (55), (56), (57), (59), (60), (61), (63), (64) 0/40000; (3), (24), (37), (41), (42), (50), (51) 0/30000; (4) 0/45000; (7) 200/30000; (8) 500/32000; (9) 0/33000; (10) 300/30000; (12) 0/24000; (13) 150/31000; (18), (46) 0/10000; (22) 0/36000; (26) 0/34000; (27) 0/28000; (49), (52), (58) 0/35000; (62) 0/50000.
4	**Viral Encephalopathy and Retinopathy** 1. Kaohsiung city, Chiayi county, Pingtung county. 29 outbreak reports from 23 farms. 2. Date: (1), (2) Apr 10; (3), (4), (5) Apr 11; (6), (7) Apr 25; (8), (9), (10) Apr 26; (11) May 19; (12), (13), (14) May 20; (15), (16), (17) May 23; (18) May 24; (19), (20) May 25; (21) May 31; (22) Jun 1; (23), (24) Jun 2; (25) Jun 15; (26) Jun 22; (27) Jun 26; (28) Jun 28; (29) Jun 29. 3. Species: (1), (4), (7), (12), (13), (14), (15), (16), (18), (23), (24), (27), (29) *Epinephelus lanceolatus*; (2), (3), (5), (6), (9), (11), (17), (19), (20), (22), (25), (26) *Epinephelus malabaricus*; (8), (10) *Epinephelus fuscoguttatus x Epinephelus lanceolatus*; (21) *Lates calcarifer*; (28) *Trachinotus blochii*. 4. Mortality rate: low. 5. Total number of death: (1), (4), (8), (12), (13), (14), (15), (18), (23), (24), 0/1000; (2), (3), (5), (6), (19), (20), (22), (25), (26), (28) 0/10000; (7), (29) 0/2000; (9) 0/11000; (10) 0/900; (11), (17) 0/20000; (16) 0/300; (21) 0/40000; (27) 0/1500.
5	**White Spot Disease** 1. Pingtung county, Tainan city, Chiayi county, Taitung county. 7 outbreak reports from 7 farms. 2. Date: (1) Apr 7; (2) Apr 11; (3) Apr 20; (4) Apr 24; (5) May 3; (6) May 18; (7) Jun 26. 3. Species: (1), (2), (5) Ornamental shrimps; (3), (4) *Neocaridina denticulata sinensis*; (6) *Penaeus monodon*; (7) *Litopenaeus vannamei*. 4. Mortality rate: low. 5. Total number of death: (1) 0/150000; (2), (4) 0/80000; (3) (6) 0/300000; (5) 0/10000; (7) 0/6700000.
6	**Infectious hypodermal and haematopoietic necrosis (IHHN)** 1. Taitung county. 2 outbreak reports from 2 farms. 2. Date: (1), (2) Apr 5. 3. Species: (1), (2) *Litopenaeus vannamei*. 4. Mortality rate: low. 5. Total number of death: (1) 0/2700000; (2) 0/3160000.

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

A. Quarantine Requirements for the Importation of Live Fish and Their Gametes and Fertilized Eggs(Amendments enter into force on June 22, 2017)

B. The stipulation in regard to the suspension of the importation of live tilapia from Colombia, Ecuador, Israel, Egypt, Thailand and P.R China to prevent the introduction of Tilapia Lake Virus into Taiwan (stipulation has been effective since June 22, 2017)

Country: HONG KONG SAR, CHINA* Period: April - June 2017

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (EUS)	0000	0000	0000	III	
6. Red seabream iridoviral disease (RSID)	-	-	-	III	
7. Koi herpesvirus disease (KHV)	-	-	-	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	-	-	-	III	
9. Viral encephalopathy and retinopathy	-	-	-	III	
10.Enteric septicaemia of catfish	0000	0000	0000	II	
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	II	
2. Infection with *Perkinsus olseni*	0000	0000	0000	II	
3. Infection with abalone herpesvirus	0000	0000	0000	II	
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000	II	
5. Infection with *Bonamia ostreae*	***	***	***		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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)	***	***	***	II	
8. Acute hepatopancreatic necrosis disease (AHPND)	***	***	***	II	
9. Crayfish plague	0000	0000	0000	II	
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	***	***	***		
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	+( )	(1 Apr 2017)	(1 Apr 2017)	II	1
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000	II	
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

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	Seized giant salamander from suspected illegal trade developed signs of the disease while under quarantine. There is no evidence of spread of the disease inside or outside the quarantine facility. Samples were sent to Australian Animal Health Laboratory for confirmation.
2	
3	

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

Country: INDIA* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (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		
11. Carp edema virus disease	-	-	+	III	2
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	+	+	-	II,III	3
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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)	+	+	+	III	4
3. Yellowhead disease (YHD)	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+	+	+	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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	+	+	+	III	7
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000		
12. *Spiroplasma eriocheiris* infection	0000	0000	0000		
13. Iridovirus in crayfish	0000	0000	0000		

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

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	**Infection with viral encephalopathy and retinopathy** virus was detected in *Lates calcarifer* from Krishna district of Andhra Pradesh and was associated with low mortalities.
2	**Carp edema virus** infection was reported in *Cyprinus carpio* koi from Khroda district, Odisha and 100% mortality was observed within 4 days of infection.
3	**Infection with *Perkinsus olseni*** reported from farmed *Perna viridis* from Kasaragod, Kozhikode and Thrissur districts of Kerala; wild samples of *Perna viridis* from Kozhikode district and *Paphia malabarica* from Thrissur districts of Kerala

4	**WSSV** was detected from *Penaeus monodon* in Kannur district of Kerala; and *Litopenaeus vannamei* from Nagapattinam, Ramnad, Kanchipuram, Thiruvallur, Thanjavur, Pudukkottai districts of Tamil Nadu; Raigad district of Maharashtra; Nellore, East Godavari, West Godavari, Visakhapatnam, Vizianagram districts of Andhra Pradesh; Bhadrak district of Odisha; Thrissur district of Kerala and associated with low to heavy mortalities. WSSV was detected in *L. vannamei* from few farms of Uttara Kannada, Dakshina Kannada and Udupi districts of Karnataka but was not associated with mortalities.
5	**IHHNV** was detected in *Litopenaeus vannamei* from Uttar Kannada district of Karnataka; Nagapattinam, Pudukkottai, Ramnad and Thanjavur districts of Tamil Nadu; and Penaeus monodon from Kannur and Kollam districts of Kerala.; *Litopenaeus vannamei* from Udupi and Uttar Kannada districts of Karnataka and East Godavari district of Andhra Pradesh.
6	**Infectious myonecrosis virus** was detected in *Litopenaeus vannamei* from Krishna district, Andhra Pradesh and Nagapattinam district, Tamil Nadu and associated with low mortalities
7	**Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei*** was reported in *Litopenaeus vannamei* from East Godavari, West Godavari, Srikakulam, Krishna, Guntur and Nellore districts of Andhra Pradesh; Raigad and Thane districts of Maharashtra; Nagapattinam, Kanchipuram and Pudukkottai districts of Tamil Nadu; Udupi, Dakshina Kannada and Uttara Kannada districts of Karnataka; and in *Penaeus monodon* from Raigad and Thane districts of Maharashtra.

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

Country: IRAN* **Period: January - March 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	January	February	March		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	+()	+()	+()	III	1
3. Spring viraemia of carp (SVC)	-	-	-		
4. Viral haemorrhagic septicaemia (VHS)	+()	+()	+()	III	2
5. Infection with *Aphanomyces invadans* (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease (RSID)	0000	0000	0000		
7. Koi herpesvirus disease (KHV)	(2015)	(2015)	(2015)		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	***	***	***		
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
5. Infection with *Bonamia ostreae*	**0000**	**0000**	**0000**		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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)	-(2016)	-(2016)	-(2016)		
3. Yellowhead disease (YHD)	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	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)	***	***	***		
9. Crayfish plague	***	***	***		
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	***	***	***		
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: 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	**IHN** was reported in two provinces,one propagation center in Chaharmahal&Bakhtiari, and one farm in Kohkiloye&Boier Ahmad. 1 – The isolates were related to the genogroup E and near to Italian isolates and origin of the disease is under study. 2 – The affected species was *Oncorhynchus mykiss* 3 – The disease occured in January-March 2017. 4 – Clinical signs were mass mortality, lethargy, swimming with intermittent bouts of frenzied, abnormal activity,pinpoint haemorrhages in visceral organs and pale gills. 5 – The pathogen was detected by histopathology, nested-PCR and cell culture in CVL, and genetic sequencing in OIE reference laboratory in Denmark. 6 – Morbidity rate was unknown. 7 – Mortality rate was around 30-40 % 8 – Age of affected fishes were 2-5 months 9 – Economic loss has not been calculated yet. 10 – Emergency harvesting , stamping out of juvenile and fallowing were carried out.

2	VHS was reported in three provinces,3 fish farm in Chaharmahal&Bakhtiari,3 farm in Kohkiloye&Boier Ahmad and one farm in Fars. 1 – The isolates were related to the genogroup Ia-2 and origin of the disease was exotic . 2 – The affected species was *Oncorhynchus mykiss* 3 – The disease occured in January-March 2017. 4 – Clinical signs were pinpoint haemorrhages in visceral organs and pale gills, ascite and 'pop eye' exophthalmia, bleeding under skin around base of pectoral and pelvic fins. 5 – The pathogen was detected by real time PCR, ELISA, histopathology, nested-PCR and virus culture in CVL and Mashhad PCR Lab. 6 – Morbidity rate was unknown. 7 – Mortality rate were between 30- 70 % 8 – Age of affected fishes were different 9 – Economic loss has not been calculated yet. 10 – Emergency harvesting, stamping out of juvenile and fallowing were carried out.

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

Country: IRAN* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	+()	+()	+()	3	1
3. Spring viraemia of carp (SVC)	-	-	-		
4. Viral haemorrhagic septicaemia (VHS)	+()	+()	+()	3	2
5. Infection with *Aphanomyces invadans* (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease (RSID)	0000	0000	0000		
7. Koi herpesvirus disease (KHV)	(2015)	(2015)	(2015)		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	***	***	***		
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
5. Infection with *Bonamia ostreae*	**0000**	**0000**	**0000**		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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)	-	-	+()	3	3
3. Yellowhead disease (YHD)	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	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)	***	***	***		
9. Crayfish plague	***	***	***		
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	***	***	***		
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: 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	**IHN** was reported in two provinces,one propagation center in Chaharmahal&Bakhtiari, and in one farm in North Khorasan.. 1 – The isolates were related to the genogroup E and near to Italian isolates and origin of the disease is under study. 2 – The affected species was *Oncorhynchus mykiss* 3 – The disease occured in April-June 2017. 4 – Clinical signs were mass mortality, lethargy, swimming with intermittent bouts of frenzied, abnormal activity,pinpoint haemorrhages in visceral organs and pale gills. 5 – The pathogen was detected by histopathology, nested-PCR and cell culture in CVL, and genetic sequencing in OIE reference laboratory in Denmark. 6 – Morbidity rate was unknown. 7 – Mortality rate was around 30-40 % 8 – Age of affected fishes were 2-5 months 9 – Economic loss has not been calculated yet. 10 – Emergency harvesting , stamping out of juvenile and fallowing were carried out.

2	VHS was reported in two provinces, 2 fish farms in Chaharmahal&Bakhtiari and two farms in Fars. 1 – The isolates were related to the genogroup Ia-2 and origin of the disease was exotic . 2 – The affected species was *Oncorhynchus mykiss* 3 – The disease occured in April-June 2017. 4 – Clinical signs were pinpoint haemorrhages in visceral organs and pale gills, ascite and 'pop eye' exophthalmia, bleeding under skin around base of pectoral and pelvic fins. 5 – The pathogen was detected by real time PCR, ELISA, histopathology, nested-PCR and virus culture in CVL and Mashhad PCR Lab. 6 – Morbidity rate was unknown. 7 – Mortality rate were between 30- 70 % 8 – Age of affected fishes were different 9 – Economic loss has not been calculated yet. 10 – Emergency harvesting, stamping out of juvenile and fallowing were carried out.
3	By implementation of active surveillance system in shrimp farms,WSSV detected in two propagation centers in Dashti City (Bushehr Province). 1 – The Origin of diseaseis still unknown, but it is under study. 2 – Affected species were *L.vannamei*. 3 – The disease occured in June 2017. 4 – Clinical signs were sudden decrease in feeding, swimming near the edge of pond, reddish body and white spot on the cephalothorax and sudden death . 5 – The pathogen was detected by nested-PCR and confirmed by national shrimp laboratory in Boushehr. 6 – Morbidity rate was near to 1% . 7 – Mortality rate was very low. 8 – Age of affected shrimps were juvenile. 9 – Economic loss undetermined. 10 –Affected ponds was disinfected with 40 ppm calcium choloride and all of infected shrimps were eradicated.

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

Country: JAPAN* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	I	
2. Infectious haematopoietic necrosis	+	+	+	III	1
3. Spring viraemia of carp (SVC)	0000	0000	0000	I	
4. Viral haemorrhagic septicaemia (VHS)	+	+	+	III	2
5. Infection with *Aphanomyces invadans* (EUS)	-(2015)	-(2015)	-(2015)	I	
6. Red seabream iridoviral disease (RSID)	+	+	+	III	3
7. Koi herpesvirus disease (KHV)	+	+	+	III	4
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000	I	
9. Viral encephalopathy and retinopathy	-(2017)	-(2017)	+	III	5
10.Enteric septicaemia of catfish	-(2010)	-(2010)	-(2010)	I	
11. Carp edema virus disease	0000	0000	0000	I	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	I	
2. Infection with *Perkinsus olseni*	-(2007)	-(2007)	-(2007)	I	
3. Infection with abalone herpesvirus	0000	0000	0000	I	
4. Infection with *Xenohaliotis californiensis*	-(2015)	-(2015)	-(2015)	I	
5. Infection with *Bonamia ostreae*	0000	0000	0000	I	
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	-(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)	-(2017)	-(2017)	+	III	6
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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	0000	0000	0000	I	
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000	I	
12. *Spiroplasma eriocheiris* infection	0000	0000	0000	I	
13. Iridovirus in crayfish	0000	0000	0000	I	

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

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	**Infectious haematopoietic necrosis (IHN)** 1. **Reported in** 11 prefectures; 2. **Species affected** – Amago (*Onchorynchus masou ishikawae*), yamame (*O. masou*), rainbow trout (*O. mykiss*), hybrid of rainbow trout; 3. **Disease characteristics** – Mortality, anemia, anemia of gills, anemia of viscera, petechial haemorrhages, exophthalmia, enlarged spleen, blackening of the body, ascites, abnormal swimming; 4. **Pathogen** – Infectious haematopoietic necrosis virus; 5. **Mortality rate** – 1-80%; 6. **Economic loss** –; 7. **Geographic extent** – Honshu, Hokkaido; 8. **Preventive/control measures** – feed restriction, disinfection of facilities and tools, movement control, removal of dead fish, low density breeding; 9. **Laboratory confirmation** – cell culture, Isolation of the virus by prefectural research laboratories; 10. **Publications** – None.

2	**Viral Haemorrhagic Septicaemia (VHS)** 1. **Reported in** 3 prefectures; 2. **Species affected** – red sea bream (*Pagrus major*), Japanese flounder (*Paralichthys olivaceus*); 3. **Disease characteristics** – mortality, petechiae, ascites; 4. **Pathogen** – Viral haemorrhagic septicaemia virus; 5. **Mortality rate** – 1-3%; 6. **Economic loss** –; 7. **Geographic extent** – Honshu, Shikoku, Kyushu; 8. **Preventive/control measures** – feed restriction, removal of infected fish, notification to concerned authorities; 9. **Laboratory confirmation** – PCR by prefectural research laboratories; 10. **Publications** – None.
3	**Red Seabream Iridoviral Disease (RSIVD)** 1. **Reported in** 5 prefectures; 2. **Species affected** – Red seabream *(Pagrus major),* greater amberjack (*Seriola dumerili*); 3. **Disease characteristics** – mortality, petechial haemorrhages, enlarged spleen; 4. **Pathogen** – Red seabream iridovirus; 5. **Mortality rate** – 1-39%; 6. **Economic loss** –; 7. **Geographic extent** – Kyushu, Okinawa; 8. **Preventive/control measures** – removal of dead fish, feed restriction; 9. **Laboratory confirmation** – PCR by prefectural research laboratories; 10. **Publications** – None.
4	**Koi Herpesvirus Disease (KHV)** 1. **Reported in** 8 prefectures; 2. **Species affected** – Koi carp (*Cyprinus carpio*) 3. **Disease characteristics** – mortality, abnormal swimming, depressed eyes, erosion; 4. **Pathogen** – Koi herpesvirus; 5. **Mortality rate** – 0-100%; 6. **Economic loss** –; 7. **Geographic extent** – Honshu, Kyushu; 8. **Preventive/control measures** – movement control, culling of infected fish, disinfection of ponds, notification to concerned authorities; 9. **Laboratory confirmation** – PCR by National Research Institute of Aquaculture; 10. **Publications** – website of Ministry of Agriculture, Forestry and Fisheries (MAFF) and prefectures.

5	**Viral Encephalopathy and Retinopathy (VER)** 1. **Reported in** 1 prefecture; 2. **Species affected** – gametes of longtooth grouper (*Epinephelus bruneus*) 3. **Disease characteristics** – none; 4. **Pathogen** – Betanodavirus; 5. **Mortality rate** – 0%; 6. **Economic loss** –; 7. **Geographic extent** – Honshu; 8. **Preventive/control measures** – disinfection of eggs; 9. **Laboratory confirmation** – PCR by prefectural research laboratory; 10. **Publications** – none.
6	**White Spot Disease (WSD)** 1. **Reported in** 2 prefectures; 2. **Species affected** – Kuruma prawn (*Penaeus japonicus*) 3. **Disease characteristics** – mortality, white spots on carapace; 4. **Pathogen** – White spot syndrome virus; 5. **Mortality rate** – 20%; 6. **Economic loss** –; 7. **Geographic extent** – Honshu, Kyushu; 8. **Preventive/control measures** – notification to concerned authorities, disinfection of facilities and tools, removal of dead shrimps, culling of infected shrimps; 9. **Laboratory confirmation** – PCR by prefectural research laboratory; 10. **Publications** – none.

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

Country: MALAYSIA* **Period: January - March 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	January	February	March		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000	I,II,III	1
3. Spring viraemia of carp (SVC)	0000	0000	0000	I,II,III	
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000	I,II,III	
5. Infection with *Aphanomyces invadans* (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	-	-	-		4
9. Viral encephalopathy and retinopathy	-	-	-		5
10.Enteric septicaemia of catfish	0000	0000	0000		
11. Carp edema virus disease	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	?( )	?( )	?( )		6
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
7. Acute viral necrosis (in scallops)	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	-	-	-		7
2. White spot disease (WSD)	-	-	-		8
3. Yellowhead disease (YHD)	-	-	-		9
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	-	-	-		10
5. Infectious myonecrosis (IMN)	-	-	-		11
6. White tail disease (MrNV)	-	-	-		12
7. Necrotising hepatopancreatitis (NHP)	-	-	-		13
8. Acute hepatopancreatic necrosis disease (AHPND)	?	?	?		14
9. Crayfish plague	0000	0000	0000		
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	?	?	?		15
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000		
12. *Spiroplasma eriocheiris* infection	0000	0000	0000		
13. Iridovirus in crayfish	0000	0000	0000		

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

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	**Spring viraemia of carp (SVC)** No positive case was detected (PCR) during DoF active surveillance programme.
2	**Red seabream iridoviral disease (RSID)** No positive case was detected (PCR) during DoF active surveillance programme.
3	**Koi herpesvirus disease (KHV)** No positive case was detected (PCR) during DoF active surveillance programme.
4	**Grouper iridoviral diesease (GIV)** No positive case was detected (PCR) during DoF active surveillance programme.
5	**Viral encephalopathy and retinopathy** No positive case was detected (PCR) during DoF active surveillance programme.

6	**Infection with Perkinsus olseni** Presence of the disease suspected but not confirmed in a zone
7	**Taura syndrome virus (TSV)** No positive case was detected (PCR) during DoF active surveillance programme.
8	**White spot disease (WSD)** No positive case was detected (PCR) during DoF active surveillance programme.
9	**Yellow head disease (YHV)** No positive case was detected (PCR) during DoF active surveillance programme.
10	**Infectious hypodermal and haematopoietic virus (IHHNV)** (*Macrobarachium rosenbergii, Penaeus monodon* and *P.vannamei*) No positive case was detected (PCR) during DoF active surveillance programme.
11	**Infectious myonecrosis (IMNV)** No positive case was detected (PCR) during DoF active surveillance programme.
12	***Macrobrachium rosenbergii* nodavirs (MrNV)** No positive case was detected (PCR) during DoF active surveillance programme.
13	**Necrotising hepatopancreatitis (NHP)** No samples were tested.
14	**Acute hepatopancreatic necrosis disease (AHPND)** Suspected by reporting officer but presence not confirmed. Surveillance programme has been planned to be carried out in 2017.
15	**Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)** Suspected by reporting officer but presence not confirmed. Surveillance programme has been planned to be carried out in 2017.

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

Country: MYANMAR* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (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	***	***	***		
11. Carp edema virus disease					
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*					
2. Infection with *Perkinsus olseni*					
3. Infection with abalone herpesvirus					
4. Infection with *Xenohaliotis californiensis*					
5. Infection with *Bonamia ostreae*					
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*					
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 (IHHN)	-	-	-	III	
5. Infectious myonecrosis (IMN)	-	-	-	III	
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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	***	***	***		
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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

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

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	During this period, we have received 33 samples of crustaceans (7 frozen shrimp and 3 soft shell crab for export, and live PL samples of *P. vannamei* (12 samples), *P. monodon* (2 samples), live broodstock of *P. monodon* (6 samples) and *M. rosenbergii* (1 adult sample) for import and local use) for testing, and found that all samples were negative for WSSV, IHHNV, MrNV, and TSV, except for some *M. rosenbergii* samples which were found positive for MrNV.
2	Visited some fish farms in Yangon, Mandalay and Ayeyarwaddy regions during this period. Parasitic infestations (*Dactylogyrus* spp and *Trichodina* 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: April - June 2017

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (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	***	***	***		
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	II	
2. Infection with *Perkinsus olseni*	0000	0000	0000	II	
3. Infection with abalone herpesvirus	0000	0000	0000	II	
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000	II	
5. Infection with *Bonamia ostreae*	0000	0000	0000	II	
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	***	***	***		
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 (IHHN)	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	III	
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	0000	0000	0000	III	
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000	III	
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: 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	
2	
3	

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

Country: NEW ZEALAND **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (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	
11. Carp edema virus disease	0000	0000	0000	III	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	- (2016)	+	- (2017)	III	1
2. Infection with *Perkinsus olseni*	+	- (2017)	- (2017)	III	2
3. Infection with abalone herpesvirus	0000	0000	0000	III	
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000	III	
5. Infection with *Bonamia ostreae*	- (2016)	+	- (2017)	III	3
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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 (IHHN)	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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	0000	0000	0000	III	
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000	III	
12. *Spiroplasma eriocheiris* infection	0000	0000	0000	III	
13. Iridovirus in crayfish	0000	0000	0000	III	

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

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	**Infection with *Bonamia exitiosa*** 1. **Reported in Foveaux Strait** in May 2017 via targeted surveillance; 2. **Species affected** – wild flat oysters (*Ostrea chilensis*) 3. **Clinical signs** – low level 4. **Pathogen** – *Bonamia exitiosa* 5. **Mortality rate** – 4-5% (16.2 million oysters) 6. **Economic loss** – N/A 7. **Geographic extent** – Foveaux Strait, Southland 8. **Containment measures** – N/A; 9. **Laboratory confirmation** – histopathology and qPCR (National Institute Water and Atmospheric Research) 10. **Publications** – None. *Bonamia exitiosa* 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 *Ostrea chilensis* from Hauraki Gulf, Tauranga, the Marlborough Sounds and Wellington Harbour. Annual monitoring of the presence of B. exitiosa infection is undertaken in the flat oyster (*O. chilensis*) population in the Foveaux Strait.

2	**Infection with *Perkinsus olseni*** 1. **Reported in Northland** in April 2017 via passive surveillance; 2. **Species affected** – farmed black foot paua (*Haliotis iris*) 3. **Clinical signs** – low level 4. **Pathogen** – *Perkinsus olseni*; 5. **Mortality rate** – N/A; 6. **Economic loss –** N/A; 7. **Geographic extent** – on one land-based farm in Northland 8. **Containment measures** – N/A; 9. **Laboratory confirmation** – RFTM and real-time PCR (Investigation and Diagnostic Centre - Wallaceville) 10. **Publications** – None. *Perkinsus olseni* was first detected in New Zealand in 1999, in wild wedge shells (*Macomona liliana*). It was then found in wild populations of New Zealand cockles (*Austrovenus stutchburyi*), ark shells (Barbatia novaezelandiae) and pipi (*Paphies australis*) in 2000-2001. In July 2013, *P. olseni* was detected for the first time in farmed black foot pāua (*Haliotis iris*), a type of abalone native to New Zealand. Further detections were made in wild *H. iris* populations in 2014. These mollusc species occur widely around the coast of New Zealand, but to date *P. olseni* has only been detected in these species from the Auckland region northwards. *P. olseni* was found for the first time on the South Island in New Zealand green lipped mussels (*Perna canaliculus*) in a land based aquaculture facility in September 2014, and then in wild New Zealand scallops (*Pecten novaezelandiae*) in November 2014. Both of these findings were in the Marlborough region, and were incidental and not associated with mortality events.
3	**Infection with *Bonamia ostreae*** 1. **Reported in Big Glory Bay, Stewart Island** in May 2017, targeted surveillance; 2. **Species affected** – farmed flat oyster *Ostrea chilensis* 3. **Clinical signs** – none 4. **Pathogen** – *Bonamia ostreae* 5. **Mortality rate** – N/A; 6. **Economic loss** – N/A; 7. **Geographic extent** – Big Glory Bay, Stewart Island in southern New Zealand. 8. **Containment measures** – movement control; depopulation 9. **Laboratory confirmation** – real-time PCR and gene sequencing (Investigation and Diagnostic Centre - Wallaceville) 10. **Publications** – None *Bonamia ostreae* was detected for the first time in New Zealand flat oysters (*Ostrea chilensis*) 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 *Bonamia ostreae* in wild flat oysters within a movement control area in May of 2016, no clinical signs were associated with the finding.
4	The first isolation of ***Batrachochytrium dendrobatidis*** 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.

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

Following the detection of *Bonamia ostreae* in Big Glory Bay, Stewart Island in May 2017, the Controlled Area Notice issued under s131 of the Biosecurity Act 1993, that has been in place since 2015, was reissued to manage risk movements from Stewart Island by creating a Stewart Island Zone. Under s122 of the Biosecurity Act 1993, Notices of Direction to depopulate were also served on flat oyster farms within areas where *B. ostreae* had been detected. Depopulation of farms commenced in Big Glory Bay on the 19 June 2017.

Country: PHILIPPINES* Period: July - September 2016

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
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 *Aphanomyces invadans* (EUS)	-(2002)	-(2002)	-(2002)	I	1
6. Red seabream iridoviral disease (RSID)	0000	0000	0000	I, III	2
7. Koi herpesvirus disease (KHV)	0000	0000	0000	I, III	3
Non OIE-listed diseases					
8. Grouper iridoviral disease	-(2008)	-(2008)	-(2008)	I, III	
9. Viral encephalopathy and retinopathy	-	-	-	I, III	4
10.Enteric septicaemia of catfish	****	****	****		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpesvirus	****	****	****		
4. Infection with *Xenohaliotis californiensis*	****	****	****		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
7. Acute viral necrosis (in scallops)	****	****	****		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	I, III	5
2. White spot disease (WSD)	+	+	+	I, III	6
3. Yellowhead disease (YHD)	-(1999)	-(1999)	-(1999)	I, III	7
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+	+	+	I, III	8
5. Infectious myonecrosis (IMN)	0000	0000	0000	I, III	9
6. White tail disease (MrNV)	0000	0000	0000	I, III	10
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	I, III	11
8. Acute hepatopancreatic necrosis disease (AHPND)	-	+	-	I, II, III	12
9. Crayfish plague					
Non OIE-listed diseases					
10. *Monodon* slow growth syndrome	****	****	****		
11. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	+	+	+	I, III	13

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

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: 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	Two hundred forty (240) samples *Anguilla* spp. were negative for Infection with *Aphanomyces invadans* (EUS) by gross morphological examination. Samples were from Laguna, Mindoro, Antipolo, Bulacan and Batangas. Examination was conducted by BFAR Central Office Laboratory.
2	One (1) sample of *P.leopardus* was analyzed using PCR test and showed negative results for Red Seabream Iridoviral Disease (RSID). The sample was collected from Guimaras. Examination was conducted by SEAFDEC/AQD Laboratory.
3	Six (6) samples of *Cyrinus carpio* (Koi) were analyzed using PCR test. All samples showed negative results for Koi Herpes Virus (KHV). The samples were collected from Quezon City. Examination was conducted by BFAR Central Office Laboratory.

4	Thirteen (13) samples- (2 *L.calcarifer,* 3 *P.leopardus,* 1 *E.coioides, 7* Red Tilapia) were analyzed using PCR test. All samples showed negative results for Viral encephalopathy and retinopathy (VER). The samples were collected from Malabon, Iloilo and Guimaras. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
5	Two hundred (200) samples- (109 *P.vannamei*, 1 *P.indicus,* 13 *Scylla* spp. and 77 *P. monodon*) of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Taura Syndrome (TS). The samples were collected from Misamis Occidental, Lanao del Norte, Quezon, Zambales, Leyte, Negros Occidental, Pangasinan, Cebu, Sarangani, Aklan, Batangas, Ilocos Sur, Davao City, Zamboanga City, Bohol and Sorsogan. Other samples were imported from Hawaii. Examination was conducted by BFAR Central Office Laboratory.
6	Four hundred thirty three (433) samples of *P.vannamei, P.indicus, S.serrata,* and *P. monodon* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Thirteen (6 *P.monodon,* 2 *P.vannamei,* 1 *P.indicus,* 1 *S.serrata* and 3 crabs) showed positive results for White spot disease (WSD). The samples were collected from Davao del Sur, Zamboanga Sibugay, Surigao del Sur, Guimaras, Capiz and Agusan del Norte. Examination was conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
7	Ninety eight (98) samples- (75 *P.vannamei, 1 P.indicus* and 22 *P. monodon*) of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Yellowhead Virus (YHV). The samples were collected from Cebu, Bohol, Negros Oriental, Sorsogon, Magiundanao, Leyte, Batangas, Zamboanga Sibugay, Zamboanga del Norte, Agusan del Norte, Zambales, Davao del Sur, Northern Samar, Misamis Occidental, Lanao del Norte, Negros Occidental, Occidental Mindoro. Examination was conducted by BFAR Central Office Laboratory.
8	Two hundred forty nine (249) samples of *P.vannamei, P.indicus, Scylla serrata, P.pelagicus* and *P. monodon* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Twenty seven (11 *P.monodon* and 16 *P.vannamei)* showed positive results for Infectious hypodermal and haematopoietic necrosis (IHHN). The positive samples were collected from Batangas, Leyte, Pangasinan, Agusan del Norte, Aklan, Ilocos Sur, Davao del Sur, Samar, Occidental Mindoro, Misamis Occidental, Iloilo and Lanao del Norte. Examination was conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
9	One hundred fifty four (154)samples- (121 *P.vannamei*, 32 *P.monodon* and 1 *P.indicus*) of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Infectious myonecrosis (IMN). The samples were collected from Batangas, Cebu, Bohol, Zambales, Negros Oriental, Sorsogon, Maguindanao, Leyte, Pangasinan, Zamboanga Sibugay, Zamboanga del Norte, Agusan del. Other samples are also imported from Hawaii. Examination was conducted by BFAR Central Office Laboratory.
10	Two (2) *M.rosenbergii* Rizal was analyzed using PCR test.The sample showed negative results for White Tail Disease (MrNV). Examination was conducted by BFAR Central Office Laboratory.
11	Forty three (43) samples- (28 *P.vannamei*, 2 *M.rosenbergii* and 13 *P. monodon*) of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Necrotising Hepatopancreatitis (NHP). The samples were collected from Cebu, Bohol, Negros Oriental, Ilocos Sur, Agusan del Norte, Davao del Sur, Rizal, Bislig City, Samar, Batangas and Leyte. Examination was conducted by BFAR Central Office Laboratory.

12	Three hundred (300) samples of *P.vannamei*, *P.indicus, M.rosenbergii, Scylla* spp. and *P. monodon* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Four *P.vannamei* showed positive results for Acute hepatopancreatic necrosis disease (AHPND). The positive samples were collected from Cebu and Batangas. Examination was conducted by BFAR Central Office Laboratory.
13	Two hundered three (203) samples- (164 *P.vannamei,*36 *P. monodon,* 1 *P.indicus* and 2 *M.rosenbergii)* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Fifteen (8 *P.vannamei* and 7 *)*samples showed positive results for Enterocytozoon hepatopenaei (HPM-EHP). The positive samples were collected from Bohol, Batangas and Agusan del Norte. Examination was conducted by BFAR Central Office Laboratory.

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

Country: PHILIPPINES* Period: October - December 2016

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp (SVC)	0000	0000	0000		
4. Viral haemorrhagic septicaemia (VHS)	0000	0000	0000		
5. Infection with *Aphanomyces invadans* (EUS)	-(2002)	-(2002)	-(2002)	I	1
6. Red seabream iridoviral disease (RSID)	0000	0000	0000	I, III	2
7. Koi herpesvirus disease (KHV)	0000	0000	0000	I, III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	-(2008)	-(2008)	-(2008)	I, III	
9. Viral encephalopathy and retinopathy	-	-	-	I, III	3
10.Enteric septicaemia of catfish	****	****	****		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpesvirus	****	****	****		
4. Infection with *Xenohaliotis californiensis*	****	****	****		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
7. Acute viral necrosis (in scallops)	****	****	****		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	I, III	4
2. White spot disease (WSD)	+	+	+	I, III	5
3. Yellowhead disease (YHD)	-(1999)	-(1999)	-(1999)	I, III	6
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+	+	+	I, III	7
5. Infectious myonecrosis (IMN)	0000	0000	0000	I, III	8
6. White tail disease (MrNV)	0000	0000	0000	I, III	
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	I, III	9
8. Acute hepatopancreatic necrosis disease (AHPND)	-	+	-	I, II, III	10
9. Crayfish plague					
Non OIE-listed diseases					
10. *Monodon* slow growth syndrome	****	****	****		
11. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	+	+	+	I, III	11

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

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: 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	Three hundred (300) samples- (270 *Anguilla* spp. and 30 *Monopterus albus*) were negative for Infection with *Aphanomyces invadans* (EUS) by gross morphological examination. Samples were from Laguna, Antipolo, Cagayan, Cavite and Batangas. Examinations were conducted by BFAR Central Office Laboratory.
2	Sixteen (16) samples of grouper-(5 Blue Dotted, 5 Marbled, 1 *L.calcarifer* and 5 Tiger) were analyzed using PCR test and showed negative results for Red Seabream Iridoviral Disease (RSID). The samples were collected from Palawan, Iloilo and Zamboanga. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
3	Twenty-six (26) samples- (5 Blue Dotted grouper, 5 Marbled grouper, 5 Tiger grouper, 1 *L.calcarifer*, 2 *E.coioides*, 1 *E.merra*, 1 *T.blochii*, 1 *S.guttatus,* 1 siganid and 4 Pompano) were analyzed using PCR test. One *E.coicoides* showed positive results for Viral encephalopathy and retinopathy (VER). The positive sample was collected from Iloilo. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.

4	One hundred eighty four (184) samples- (140 *P.vannamei* and 44 *P. monodon*) of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Taura Syndrome (TS). The samples were collected from Batangas, Iloilo, Pangasinan, Oriental Mindoro, Cebu, Bohol, Zambales, Aklan, Misamis Occidental, Negros Occidental, Mati City, Pangasinan, Sarangani Province, Agusan del Norte, Quezon City and Surigao City. Examinations were conducted by BFAR Central Office Laboratory.
5	Four hundred ninety-four (494) samples of *P.vannamei, P. monodon, P.indicus, S.serrata, P.pelagicus,* jellyfish and crabs of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Ninety-nine (28 *P.monodon, 11 P.vannamei,* 9 *P.indicus,* 43 *S.serrata,* 1 *P.pelagicus,* 1 jellyfish and 6 crabs) showed positive results for White spot disease (WSD). The samples were collected from Iloilo, Surigao, , Surigao del Norte, Capiz, Cebu, Leyte, Batangas, Agusan del Norte and Camarines Sur. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
6	One hundred sixty-two (162) samples- (150 *P.vannamei* and 12 *P. monodon*) of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Yellowhead Virus (YHV). The samples were collected from Batangas, Iloilo, Pangasinan, Oriental Mindoro, Cebu, Bohol, Zambales, Davao City, General Santos, Sarangani Province, Surigao City, Agusan del Norte, Leyte, Oriental Mindoro and Negros Occidental. Other samples are imported from Hawaii, USA. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
7	Three hundred twenty-nine (329) samples of *P.vannamei, P.indicus*, *S.serrata, P.pelagicus*, crab and *P. monodon* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Eighty-four (23 *P.monodon,* 2 *S.serrata,* 1 crab and 58 *P.vannamei)* showed positive results for Infectious hypodermal and haematopoietic necrosis (IHHN). The positive samples were collected from Batangas, Iloilo, Leyte, Pangasinan, Agusan del Norte, Aklan, Ilocos Sur, Davao del Sur, Samar, Occidental Mindoro, Misamis Occidental, Iloilo and Lanao del Norte. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
8	Two hundred twenty-one (221)samples- (177 *P.vannamei*, 44 *P.monodon)* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Infectious myonecrosis (IMN). The samples were collected from Batangas, Iloilo, Cebu, Leyte, Bohol, Aklan, Negros Occidental, Quezon, Davao, Pangasinan, General Santos, Sarangani Province, Surigao City, Butuan, Bataan, Zambales and Oriental Mindoro. Other samples are also imported from Hawaii. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
9	Thirteen samples of *P.vannamei* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. All samples showed negative results for Necrotising Hepatopancreatitis (NHP). The samples were collected from Cebu, Pangasinan, Sarangani, Batangas and Cebu. Examinations were conducted by BFAR Central Office Laboratory.
10	Two hundred ninety-five (295) samples of *P.vannamei* and *P. monodon* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Twenty (10 *P.vannamei* and 10 *P.monodon*) showed positive results for Acute hepatopancreatic necrosis disease (AHPND). The positive samples were collected from Iloilo, Negros Occidental, Aklan, Cebu, Batangas, Agusan del Norte, Surigao City and Leyte. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.

11	Two hundered thirty seven (237) samples- (197 *P.vannamei* and 38 *P. monodon)* of different stages (broodstock, adult, fry and juvenile) were analyzed using PCR test. Twenty two (15 *P.vannamei* and 7 *P.monodon)*samples showed positive results for Enterocytozoon hepatopenaei (HPM-EHP). The positive samples were collected from Batangas, Cebu, Leyte, Iloilo, Quezon, Agusan del Norte, Surigao City, Zambales, Oriental Mindoro and Butuan City. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.

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

Country: PHILIPPINES* **Period: January - March 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	January	February	March		
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 *Aphanomyces invadans* (EUS)	-(2002)	-(2002)	-(2002)	I	1
6. Red seabream iridoviral disease (RSID)	0000	0000	0000	I, III	
7. Koi herpesvirus disease (KHV)	0000	0000	0000	I, III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	-(2008)	-(2008)	-(2008)	I, III	
9. Viral encephalopathy and retinopathy	-	-	-	I, III	2
10.Enteric septicaemia of catfish	****	****	****		
11. Carp edema virus disease					
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpesvirus	****	****	****		
4. Infection with *Xenohaliotis californiensis*	****	****	****		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
7. Acute viral necrosis (in scallops)	****	****	****		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	I, III	3
2. White spot disease (WSD)	+	+	+	I, III	4
3. Yellowhead disease (YHD)	-(1999)	-(1999)	-(1999)	I, III	5
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+	+	+	I, III	6
5. Infectious myonecrosis (IMN)	0000	0000	0000	I, III	7
6. White tail disease (MrNV)	0000	0000	0000	I, III	
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	I, III	8
8. Acute hepatopancreatic necrosis disease (AHPND)	-	+	-	I, II, III	9
9. Crayfish plague					
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	***	***	***		
11. Viral covert mortality disease (VCMD) of shrimps					
12. *Spiroplasma eriocheiris* infection					
13. Iridovirus in crayfish					

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

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	****	****	****		
2. Infection with *Batrachochytrium dendrobatidis*	****	****	****		
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 *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	**Aphanomyces invadans (EUS)** EUS was not detected in *Anguilla* spp. and *Monopterus albus* samples by gross morphological examination from the provinces of Laguna, Antipolo, Cavite,Butuan, General Santos and Batangas. Examinations were conducted by Bureau of Fisheries and Aquatic Resources (BFAR) Central Office Laboratory.
2	**Viral encephalopathy and retinopathy (VER)** An Analysis to Red Coral Trouts was done using PCR test and showed negative results for Viral encephalopathy and retinopathy (VER). The sample were collected from Palawan. Examination was conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.

3	**Taura Syndrome (TS)** Taura Syndrome was not detected in the samples of *P.vannamei* and *P. monodon* of different stages (broodstock, adult, fry and juvenile) that were analyzed using PCR test from the provinces of Zambales, Bataan, Pampanga,Batangas, Quezon, Cebu, Bohol and Negros Occidental . Examinations were conducted by BFAR Central Office and Regional Laboratories.
4	**White Spot Disease (WSD)** **Origin of the disease or pathogen (history of the disease)**- 22 farms affected **Species affected :** *P.vannamei ; P.monodon ; P.indicus; S. serrata* and crabs **Pathogen**: White Spot Virus **Size of infected areas or names of infected areas:** Cagayan, Quezon, Cebu, Lanao del Norte, Agusan del Norte, Oriental Mindoro, Camarines Norte, Camarines Sur, Masbate, Leyter, Bataan, Negros Oriental, Iloilo, Capiz **Samples sent to national or international laboratories for confirmation (indicate the names of laboratories)** : Polymerase Chain Reaction Test (PCR) / Bureau of Fisheries and Aquatic Resources (BFAR) Central and Regional Laboratories and Southeast Asian Fisheries Development Center-Aquaculture Department (SEAFDEC-AQD)
5	**Yellow Head Virus (YHV)** Yellow Head Virus was not detected in the samples of *P.vannamei* that were analyzed using PCR test from the provinces of Cebu, Bohol and Negros Oriental. Examinations were conducted by BFAR Central Office and SEAFDEC/AQD Laboratories.
6	**Infectious Hypodermal and Heamopoetic Necrosis (IHHNV)** **Origin of the disease or pathogen (history of the disease)**- 23 farms affected **Species affected** : *P.vannamei ; P.monodon* **Pathogen**: Infectious Hypodermal and Heamopoetic Necrosis Virus **Size of infected areas or names of infected areas:** Zambales, Quezon, Camarines Norte, Camarines Sur, Catanduanes, Masbate, Bulacan, Marinduque, Iloilo, Bohol, Cebu, Leyte, Agusan del Norte **Samples sent to national or international laboratories for confirmation (indicate the names of laboratories) :** Polymerase Chain Reaction Test (PCR) / BFAR Central, Regional and SEAFDEC-AqD Laboratories
7	**Infectious myonecrosis (IMN)** Infectious myonecrosis was not detected in the samples of *P.vannamei* and *P.monodon* of different stages (broodstock, adult, fry and juvenile) that were analyzed using PCR test from the provinces of Batangas, Quezon, Cebu, Bohol and Negros Oriental. Examinations were conducted by BFAR Central and Regional Office Laboratories.
8	**Necrotising Hepatopancreatitis (NHP**) Necrotising Hepatopancreatitis was not detected in the samples of *P.vannamei* and *P.monodon*of different stages (broodstock, nauplii) that were analyzed using PCR test from the provicnes of Cebu and Negros Oriental. Examinations were conducted by BFAR Region VII Laboratories.

9	**Acute hepatopancreatic necrosis disease (AHPND)** **Origin of the disease or pathogen (history of the disease)**- 7 farms affected **Species affected** : *P.vannamei ; P.monodon* **Pathogen:** *Vibrio parahaemolyticus* **Size of infected areas or names of infected areas:** Cagayan, Zambales, Batangas, Cebu, Leyte, Bohol **Samples sent to national or international laboratories for confirmation (indicate the names of laboratories)** : Polymerase Chain Reaction Test (PCR) / Bureau of Fisheries and Aquatic Resources (BFAR) Central and Regional Laboratories
10	**Hepatopnacreatic Microsporidiosis caused by Enterocytozoon hepatopenaei (HPM-EHP)** **Origin of the disease or pathogen (history of the disease)-** 8 farms affected **Species affected** : *P.monodon* **Pathogen:** Vibrio parahaemolyticus **Size of infected areas or names of infected areas:** Butuan City, Camarines Norte, Zambales Norte, Zambales, Bulacan, Quezon, Negros Occidental, Surigao del Norte, Agusan del Norte **Samples sent to national or international laboratories for confirmation (indicate the names of laboratories)** : Polymerase Chain Reaction Test (PCR) / Bureau of Fisheries and Aquatic Resources (BFAR) Central and Regional Laboratories

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

Country: PHILIPPINES* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (EUS)	-(2002)	-(2002)	-(2002)	I	1
6. Red seabream iridoviral disease (RSID)	0000	0000	0000	I, III	2
7. Koi herpesvirus disease (KHV)	0000	0000	0000	I, III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	-(2008)	-(2008)	-(2008)	I, III	
9. Viral encephalopathy and retinopathy	-	-	-	I, III	3
10.Enteric septicaemia of catfish	****	****	****		
11. Carp edema virus disease	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpesvirus	****	****	****		
4. Infection with *Xenohaliotis californiensis*	****	****	****		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
7. Acute viral necrosis (in scallops)	****	****	****		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	0000	0000	0000	I, III	4
2. White spot disease (WSD)	+	+	+	I, III	5
3. Yellowhead disease (YHD)	-(1999)	-(1999)	-(1999)	I, III	6
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+	+	+	I, III	7
5. Infectious myonecrosis (IMN)	0000	0000	0000	I, III	8
6. White tail disease (MrNV)	0000	0000	0000	I, III	
7. Necrotising hepatopancreatitis (NHP)	0000	0000	0000	I, III	9
8. Acute hepatopancreatic necrosis disease (AHPND)	+	+	+	I, III	10
9. Crayfish plague	0000	0000	0000		
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	+	+	+	I, III	11
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000		
12. *Spiroplasma eriocheiris* infection	0000	0000	0000		
13. Iridovirus in crayfish	0000	0000	0000		

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	****	****	****		
2. Infection with *Batrachochytrium dendrobatidis*	****	****	****		
ANY OTHER DISEASES OF IMPORTANCE					
1. Tilapia Lake Virus	-	?	+	I,III	12
2.					

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	***Aphanomyces invadans* (EUS)** EUS was not detected in *Anguilla* spp. samples by gross morphological examination from the provinces of Agusan del Norte, Batangas, Bulacan and Occidental Mindoro. Examinations were conducted by Bureau of Fisheries and Aquatic Resources (BFAR) Central Office Laboratory.
2	**Red Seabream Iridoviral Disease (RSID)** Analyses to red and blue cod*, E.fuscoguttatus* and grouper were done using PCR test and showed negative for Red seabream iridoviral disease. The samples were collected from Zamboanga. Examination was conducted by BFAR Central Office and Southeast Asian Fisheries Development Center-Aquaculture Department (SEAFDEC-AqD) Laboratories.

3	**Viral Encepahlopathy and Retinopathy (VER)** Analyses to red and blue cod, *E.fuscoguttatus* and grouper were done using PCR test and showed negative for Viral encephalopathy and retinopathy. The samples were collected from Zamboanga. Examination was conducted by BFAR Central Office and SEAFDEC-AqD Laboratories.
4	**Taura Syndrome (TS)** Taura Syndrome was not detected in the samples of *P.vannamei, P.monodon*, *P.merguensis,* and*P.indicus*of different stages (broodstock, adult, fry and juvenile) that were analyzed using the PCR test from the provinces of Bohol, Occidental Mindoro, Zamboanga del Sur, Agusan del Norte, Cebu, Pangasinan, Oriental Mindoro, Batangas, Zambales, Leyte, Quezon, Palawan, and Ilocos Sur. Examinations were conducted by BFAR Central Office and Regional Laboratories.
5	**White Spot Disease (WSD)** **Origin of the disease or pathogen (history of the disease)-** 11 farms affected **Species affected:** *P. vannamei, P.monodon,P.indicus, S.serrata*and *P.merguensis* **Pathogen:** White Spot Virus **Size of infected areas or names of infected areas:** Cagayan, Occidental Mindoro, Agusan del Norte, Leyte, Butuan City, Iloilo, Camarines Norte and Zambales **Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):** Polymerase Chain Reaction Test (PCR) / BFAR Central and Regional and SEAFDEC-AqD Laboratories
6	**Yellow Head Virus (YHV)** Yellow Head Virus was not detected in the samples of *P. vannamei, P.monodon, P.merguensi s*and *P.indicus* that were analyzed using PCR test from the provinces of Bohol, Occidental Mindoro, Zamboanga del Sur, Agusan del Norte, Cebu, Pangasinan, Oriental Mindoro, Leyte, Zamboanga Sibugay, Zambales and Palawan. Examinations were conducted by BFAR Central and SEAFDEC/AqD Laboratories.
7	**Infectious Hypodermal and Heamatopoetic Necrosis (IHHNV)** **Origin of the disease or pathogen (history of the disease)-**8 farms **Species affected:** *P.vannamei* and *P.monodon* **Pathogen:** Infectious Hypodermal and Heamatopoetic Virus **Size of infected areas or names of infected areas:** Agusan del Norte, Pangasinan, Occidental Mindoro, Quezon, Iloilo, Aklanand Davao Oriental **Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):** Polymerase Chain Reaction Test (PCR) / Bureau of Fisheries and Aquatic Resources (BFAR) Central, Regional and (SEAFDEC-AqD) Laboratories.

8	**Infectious Myonecrosis (IMN)** Infectious myonenecrosis was not detected in the sample of *P. vannamei, P.monodon, P.indicus* and *P.merguensis* of different stages (broodstock, adult, fry and juvenile) that were analyzed using the PCR test from the provinces of Bohol, Occidental Mindoro, Zamboanga del Sur, Agusan del Norte, Cebu, Batangas, Leyte, Quezon, Zamboanga Sibugay, Zambales and Palawan. Examinations were conducted by BFAR Central Office and Regional Laboratories.
9	**Necrotising Hepatopancreatitis (NHP)** NecrotisingHepatopancreatitis was not detected in the samples of *P. vannamei,* and *P.monodon* of different stages (broodstock, adult, juvenile and nauplii) that were analyzed using the PCR test from the provinces of Bohol, Occidental Mindoro, Zamboanga del Sur, Agusan del Norte, Cebu, Pangasinan, Leyte, Oriental Mindoro, Zamboanga Sibugay, Zambales and Palawan. Examinations were conducted by BFAR Central and Regional Laboratories.
10	**Acute Hepatopancreatic Necrosis Disease (AHPND)** **Origin of the disease or pathogen (history of the disease)-**10 farms affected **Species affected:** *P. vannamei, P.monodon* **Pathogen:** AHPND *Vibrio parahaemolyticus* **Size of infected areas or names of infected areas:** Bohol, Leyte, Agusan del Norte, Zambales, Davao del Sur, Cagayan and Iloilo **Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):** Polymerase Chain Reaction Test (PCR) / Bureau of Fisheries and Aquatic Resources (BFAR) Central and Regional and AEFDEC-AQD Laboratories.
11	**Hepatopancreatic Microsporidiosis caused by Enterocytozoon hepatopenaei (HPM-EHP)** **Origin of the disease or pathogen (history of the disease)-**6 farms affected **Species affected:** *P.monodon*, *P.vannamei* **Pathogen:** *Enterocytozoon hepatopenaei* **Size of infected areas or names of infected areas:** Cebu, Agusan del Norte, Quezon, Zambales **Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):** Polymerase Chain Reaction Test (PCR) / Bureau of Fisheries and Aquatic Resources (BFAR) Central and Regional laboratories
12	**Tilapia Lake Virus (TiLV)** An unexplained daily mortality of tilapia fingerlings was observed in the nursery ponds in one of the private farms in Bulacan after stocking on May 16, 2017. Elevated mortality after 15 days reached approximately 25%. Affected fish showed distended abdomen and bulging of the eyes. On May 31, 2017 samples were collected and submitted for diagnostic examination at the Fisheries Biotechnology Center (FBC) Munoz Nueva Ecija. Semi-nested RT-PCR exhibited positive results using reported Tilapia Lake Virus (TiLV) primers. Other tilapia fingerling samples submitted to National Fisheries Laboratory- Fish Health of the Bureau of Fisheries and Aquatic Resources also showed positive results using Insulated Isothermal PCR (iiPCR). The movement of fingerlings from the affected pond is under restriction and is being monitored after confirmation of the TiLV infection. Surveillance for TiLV in other tilapia culture areas is on-going.

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

Country: SINGAPORE* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease (RSID)	(2016)	(2016)	(2016)		
7. Koi herpesvirus disease (KHV)	(2015)	(2015)	(2015)		
Non OIE-listed diseases					
8. Grouper iridoviral disease	(2014)	(2014)	(2014)		
9. Viral encephalopathy and retinopathy	+	(2017)	+	II, III	1,2
10.Enteric septicaemia of catfish	***	***	***		
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpesvirus	***	***	***		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
5. Infection with *Bonamia ostreae*	***	***	***		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	***	***	***		
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 (IHHN)	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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	***	***	***		
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	+	+	(2017)	III	3
ANY OTHER DISEASES OF IMPORTANCE					
1. Megalocytivirus (marine & ornamental fish)	(2017)	(2017)	(2017)	III	
2. *Aeromonas salmonicida* (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 *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	In April 2017, a diagnosis of Viral Nervous Necrosis Virus (VNNV) was made, through a combination of histopathology analysis and real-time RT-PCR, in batches of diseased hybrid grouper on a cluster of floating net-cage farms located in close proximity to each other. The affected farms reduced their stocking densities and removed moribund fish.
2	In June 2017, a diagnosis of Viral Nervous Necrosis Virus (VNNV) was made, through a combination of histopathology analysis and real-time RT-PCR, in a batch of hybrid grouper fingerlings experiencing high mortalities. The fish were kept in outdoor mud ponds in a commercial land-based farm. The farm drained and then disinfected the affected pond.

3	*Batrachochytrium dendrobatidis* (Bd) was detected by real-time PCR in skin swabs of wild frogs as part of a joint wildlife Chytrid study with the National Parks Board. The samples were collected from peri-urban parks as well as nature reserves. The frogs all appeared clinically healthy during sampling.

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

Country: THAILAND* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (EUS)	(2009)	(2009)	(2009)	II	
6. Red seabream iridoviral disease (RSID)	0000	0000	0000	III	
7. Koi herpesvirus disease (KHV)	(2011)	(2011)	(2011)	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	(2017)	(2017)	(2017)	III	
10.Enteric septicaemia of catfish	0000	0000	0000	II	
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
7. Acute viral necrosis (in scallops)	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome (TS)	(2015)	(2015)	(2015)	III	
2. White spot disease (WSD)	+( )	+( )	+( )	III	1
3. Yellowhead disease (YHD)	+( )	+( )	+( )	III	2
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	+( )	-	-	III	3
5. Infectious myonecrosis (IMN)	0000	0000	0000	III	
6. White tail disease (MrNV)	(2017)	(2017)	(2017)	III	
7. Necrotising hepatopancreatitis (NHP)	-	-	-	III	
8. Acute hepatopancreatic necrosis disease (AHPND)	+( )	+( )	+( )	III	4
9. Crayfish plague	0000	0000	0000	III	
Non OIE-listed diseases					
10. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	+( )	+( )	+( )	III	5
11. Viral covert mortality disease (VCMD) of shrimps	-	-	-	III	
12. *Spiroplasma eriocheiris* infection	***	***	***		
13. Iridovirus in crayfish	***	***	***		

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AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	(2016)	(2016)	(2016)	III	
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: 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	A total of 2,532 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 71 specimens or 2.80% recorded as PCR positive or carrying **White Spot Syndrome Virus (WSSV)** genes. Shrimp farm with positive testing results is subjected to health improvement, movement control, eradication and/or farm disinfection.
2	A total of 2,532 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 108 specimens or 4.27% recorded as PCR positive or carrying **Yellow Head Virus (YHV)** genes. Shrimp farm with positive testing results is subjected to health improvement, movement control, eradication and/or farm disinfection.
3	A total of 2,532 shrimp samples from shrimp farms had been tested at PCR Laboratories of the DOF under active surveillance. 24 specimens or 0.95% recorded as PCR positive or carrying **Infectious Hypoderma and Haematopoietic Necrosis Vrus (IHHNV)** genes. Shrimp farm with positive testing results is subjected to health improvement, movement control, eradication and/or farm disinfection.

4	A total of 2,532 shrimp samples from shrimp farms had been tested by PCR assay at the DOF's laboratories under active surveillance, 270 specimens or 10.66 % recorded as PCR positive for **Acute Hepatopancreatic NecrosisDisease (AHPND)**. Shrimp farms with positive testing results have been subjected to shrimp health management control and pond improvement.
5	A total of 2,532 shrimp samples from shrimp farms had been tested by PCR assay at the DOF's laboratories under active surveillance, 637 specimens or 25.16% recorded as PCR positive for **Hepatopancreatic Microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP).** Shrimp farms with positive testing results have been subjected to shrimp health management control and pond improvement.

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

Country: VIETNAM* **Period: April - June 2017**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (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, III	1
11. Carp edema virus disease	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-	-	-		
3. Infection with abalone herpesvirus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
5. Infection with *Bonamia ostreae*	0000	0000	0000		
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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 (IHHN)	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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	0000	0000	0000		
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000		
12. *Spiroplasma eriocheiris* infection	0000	0000	0000		
13. Iridovirus in crayfish	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 *Batrachochytrium dendrobatidis*	0000	0000	0000		
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 *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	**Enteric Septicaemia of Catfish (*Edwardsiella ictaluri*)** Infection found in intensive catfish (*Pangasius micronema*, *P. hypophthalmus*) farms. The disease occurred in An Giang and Dong Thap province (15.02 ha).
2	**White Spot Disease (WSD)** **Pathogen**: White spot syndrome virus (WSSV) **Species affected:** *Penaeus monodon* and *Litopenaeus vannamei* (10-100 DOC) **Name of affected area:** reported in 22 provinces (total area 1,914.2 ha) including Hai Phong, Nam Dinh, Thai Binh, Quang Ninh, Thanh Hoa, Nghe An, Ha Tinh, Thua Thien Hue, Quang Binh, Phu Yen, Khanh Hoa, Ho Chi Minh, Ninh Thuan, Ba Ria-Vung Tau, 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).

3	**Acute Hepatopancreatic Necrosis Disease (AHPND)** **Pathogen**: *Vibrio parahaemolyticus* with Phage A3 **Species affected:** *Penaeus monodon* and *Litopenaeus vannamei* (10-45 DOC) **Name of affected area:** reported in 24 provinces and caused losses in total shrimp culture area of 3,153.03 ha. Affected provinces include Hai Phong, Nam Dinh, Ninh Binh, Quang Ninh, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Da Nang, Quang Nam, Phu Yen, Khanh Hoa, Ho Chi Minh, Ninh Thuan, Dong Nai, Ba Ria-Vung Tau, Long An, Tien Giang, Ben Tre, Tra Vinh, Kien Giang, Soc Trang, Bac Lieu and Ca Mau. **Mortality rate:** could reach 95% in intensive and semi-intensive farms; **Clinical signs:** shrimps become lethargic with soft, darkened shells, mottling of the carapace. Pathology is limited to hepatopancreas. **Control measures:** strict isolation of infected ponds from movement and transport controls, disinfection of infected ponds using Calcium hypochlorite (chlorine).

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

Country: FRENCH POLYNESIA Period: April - June 2017

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
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 *Aphanomyces invadans* (EUS)	***	***	***		
6. Red seabream iridoviral disease (RSID)	***	***	***	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	***	***	***		
11. Carp edema virus disease	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	III	2
2. Infection with *Perkinsus olseni*	+	+	+	III	2
3. Infection with abalone herpesvirus					4
4. Infection with *Xenohaliotis californiensis*	***	***	***		
5. Infection with *Bonamia ostreae*	0000	0000	0000	III	2
Non OIE-listed diseases					
6. Infection with *Marteilioides chungmuensis*	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 (IHHN)	(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. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)					4
11. Viral covert mortality disease (VCMD) of shrimps	***	***	***		
12. *Spiroplasma eriocheiris* infection					4
13. Iridovirus in crayfish	***	***	***		

AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus					4
2. Infection with *Batrachochytrium dendrobatidis*					4
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

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

3	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 *Penaeus vannamei*, 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 IHHN were done in the country, and all results were negative. No mortality was observed in *Litopenaeus stylirostris* during this period.
4	Susceptible species are not present in the country.

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 2017)

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)	4. Carp edema virus disease
5. Infection with *Aphanomyces invadans* (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 *Bonamia exitiosa*	1. Infection with *Marteilioides chungmuensis*
2. Infection with *Perkinsus olseni*	2. Acute viral necrosis (in scallops)
3. Infection with abalone herpesvirus	
4. Infection with *Xenohaliotis californiensis*	
5. Infection with *Bonamia ostreae*	
1.3 CRUSTACEAN DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Taura syndrome (TS)	1. Hepatopancreatic microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)
2. White spot disease (WSD)	
3. Yellowhead disease (YHD)	2. Viral covert mortality disease (VCMD) of shrimps
4. Infectious hypodermal and haematopoietic necrosis (IHHN)	3. *Spiroplasma eriocheiris* infection
5. Infectious myonecrosis (IMN)	4. Iridovirus in crayfish
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 *Bachtracochytrium dendrobatidis*	
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 *Gyrodactylus salaris*	
2.2 Molluscs	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with *Marteilia refringens*	
2. Infection with *Perkinsus marinus*	

Recent Aquatic Animal Health Related Publications

OIE Aquatic Animal Health Code, 20th Edition, 2017. 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 20th edition incorporates modifications to the Aquatic Code agreed at the 85th General Session in May 2017. It includes: revisions to several definitions in the glossary; Chapter 1.2. 'Criteria for listing aquatic animal diseases' has been extensively amended to align with the corresponding chapter in the OIE Terrestrial Animal Health Code; a new disease, Batrachochytrium salamandrivorans, has been added to Chapter 1.3. 'Diseases listed by the OIE' and some disease names have been amended; minor amendments have been made in Chapters 4.3. 'Disinfection of aquaculture establishments and equipment', 4.4. 'Recommendations for surface disinfection of salmonid eggs' and 5.1. 'General obligations related to certification'; a number of horizontal amendments were made in all crustacean disease-specific chapters, to improve readability. In addition, the list of susceptible species in Article X.X.2. in Chapters 9.2., 9.3., 9.4., 9.5., 9.6. and 9.8. was reviewed and amended, where relevant, after consideration of the application of the 'Criteria for listing species as susceptible to infection with a specific pathogen' (Chapter 1.5.); a new chapter on acute hepatopancreatic necrosis disease (Chapter 9.1.) has been added; Article X.X.8. in all disease-specific chapters was revised to more adequately describe the requirements for the importation of aquatic animals for aquaculture from a country, zone or compartment not declared free from disease X; the year that a chapter was first adopted and the year of last revision are noted at the end of each chapter. In this regard the OIE has made every endeavour to ensure the accuracy of this information based on our historical records..The Aquatic Animal Health Code is available for free download http://www.oie.int/en/international-standard-setting/aquatic-code/access-online/

OIE Manual of Diagnostic Tests for Aquatic Animals, 2017. 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 AG[1], Bangkok, Thailand, November 7-9, 2001)

Symbols used in the report are similar to those used by FAO, OIE and WHO for the *Animal Health Yearbook*. Please read these instructions carefully before you fill in the forms.

Under the heading 'Country', please enter your country.

Under the heading 'Period', please enter the reporting quarter (months) and year, e.g. January to March 2002.

Under the heading "Month", please enter months of a quarter in question, e.g. January, February, March.

In "Level of Diagnosis", please enter the Level of Diagnosis used, e.g., I, II, or III. See Section C below.

In "Epidemiological Comment Numbers", please enter the serial numbers, and write your corresponding epidemiological comments on page 2. See Section D below for guidance on the subjects to be covered under Epidemiological Comments.

If an unknown disease of serious nature appears, please fill in the last line of the form, with additional information on "Level of Diagnosis" and "Epidemiological Comment Numbers" as above.

Please do not fail to enter "*******" or "**-**" as appropriate against each disease, which is essential to incorporate your information on the *Quarterly Aquatic Animal Disease Report (Asia and Pacific Region.)*

If you have new aquatic animal health regulations introduced within the past six months, please describe them under Section 2 on page 2.

Please use the following symbols to fill in the forms.

A. Symbols used for negative occurrence are as follows:

*** This symbol means that no information on a disease in question is available due to reasons such as lack of surveillance systems or expertise.

- This symbol is used when a disease is not reported during a reporting period. However the disease is known to be present in the country (date of last outbreak is not always known).

0000 This symbol is used when disease surveillance is in place and a disease has never been reported.

(year) Year of last occurrence (a disease has been absent since then).

B. Symbols used for positive occurrence are shown below.

+ This symbol means that the disease in question is reported or known to be present.

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

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

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

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

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

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

C. Levels of Diagnosis

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

D. Subjects to be covered in the Epidemiological Comments

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

IMPORTANT

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

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

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