AQUATIC ANIMAL DISEASE REPORT - 2023

Country/territory: Malaysia

Item	Disease status/occurrence code a/b/												Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month													
FINFISH DISEASES	January	February	March	April	May	June	July	August	September	October	November	December		
OIE-listed diseases														
1. Infection with epizootic haematopoietic necrosis virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
2. Infection with infectious haematopoietic necrosis virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
3. Infection with spring viremia of carp virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	I,II,III	
4. Infection with viral haemorrhagic septicaemia virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
5. Infection with *Aphanomyces invadans* (EUS)	-	-	-	-	-	-	-	-	-	-	-	-	I	
6. Infection with red sea bream iridovirus	-	-	-	-	-	-	-	-	-	-	-	-	I,III	
7. Infection with koi herpesvirus	-	-	-	-	-	-	-	-	-	-	-	-	I,III	1
Non OIE-listed diseases														
8. Grouper iridoviral disease	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
9. Viral encephalopathy and retinopathy	-	-	-?()	-	-	-	-	-	-	-	-	-	III	2
10.Enteric septicaemia of catfish	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
11. Carp Edema Virus Disease	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
12. Tilapia lake virus (TiLV)	-	-	-	-	-	-	-	-	-	-	-	-	III	3
MOLLUSC DISEASES														
OIE-listed diseases														
1. Infection with *Bonamia exitiosa*	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-	-	-	-	-	-	-	-	-	-	-	-		4
3. Infection with abalone herpesvirus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
5. Infection with *Bonamia ostreae*	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
Non OIE-listed diseases														
6. Infection with *Marteilioides chungmuensis*	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
7. Acute viral necrosis (in scallops)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
CRUSTACEAN DISEASES														
OIE-listed diseases														
1. Infection with Taura syndrome virus	-	-	-	-	-	-	-	-	-	-	-	-	I,III	
2. Infection with white spot syndrome virus	-	+()	+()	+()	+()	-	-	-	-	-	-	-	I,III	5
3. Infection with yellow head virus genotype 1	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	I,III	
4. Infection with infectious hypodermal and haematopoietic necrosis virus	-	-	+?()	-	-	-	-	-	-	-	-	-	III	6
5. Infection with infectious myonecrosis virus	-	-	-	-	-	+()	-	-	-	-	-	-	III	7
6. Infection with *Macrobrachium rosenbergii* nodavirus (White Tail disease)	-	-	-	-	-	-	-	-	-	-	-	-		
7. Infection with *Hepatobacter penaei* (Necrotising hepatopancreatitis)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
8. Acute hepatopancreatic necrosis disease (AHPND)	-	-	-	+?()	-	-	-	-	-	-	-	-	III	8
9. Infection with *Aphanomyces astaci* (Crayfish plague)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
Non OIE-listed diseases														
10.Hepatopnacreatic Microsporidiosis caused by *Enterocytozoon hepatopenaei* (HPM-EHP)	-	+?()	+?()	-	+?()	-	-	-	-	-	-	-	III	9
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
12. *Spiroplasma eriocheiris* infection	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
13. Decapod iridescent virus 1 (DIV-1)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
AMPHIBIAN DISEASES														
OIE-listed diseases														
1. Infection with *Ranavirus* species	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
3. Infection with *Batrachochytrium salamandrivorans*	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		

Prepared by:

Name: YEO MOI EIM

Position: SENIOR DIRECTOR, FISHERIES BIOSECURITY DIVISION

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ANY OTHER DISEASES OF IMPORTANCE														
1														
2														

DISEASES PRESUMED EXOTIC TO THE REGION[b]

LISTED BY THE OIE

Finfish: Infection with HPR-deleted or HPR0 salmon anaemia virus; Infection with salmon pancreas disease virus; Infection with *Gyrodactylus salaris*.

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

NOT LISTED BY THE OIE

Finfish: Channel catfish virus disease

a/ Please use the following occurrence code:

Occurrence code and symbol	Definition	Occurrence code and symbol	Definition
Disease present +	The disease is present with clinical signs in the whole country (in domestic species or wildlife)	Disease absent -	The disease was absent in the country during the reporting period (in domestic species or wildlife).
Disease limited to one or more zones +()	The disease is present with clinical signs, and limited to one or more zones/compartments (in domestic species or wildlife)	Never reported 0000	The disease has "never been reported" (historically absent) for the whole country in domestic species and wildlife.
Infection/infestation +?	Confirmed infestation or infection using diagnostic tests, but no clinical signs observed (in domestic species or wildlife)	No information ***	No information is available regarding the presence or the absence of this disease during the reporting period (in domestic species or wildlife).
Infection/infestation limited to one or more zones +?()	Confirmed infestation or infection using diagnostic tests, but no clinical signs observed and limited to one or more zones/compartments (in domestic species or wildlife)		
Disease suspected ?	The presence of the disease was suspected but not confirmed (in domestic species or wildlife)		
Disease suspected but not confirmed and limited to one or more zones ?()	The presence of the disease was suspected but not confirmed and limited to one or more zones/compartments (in domestic species or wildlife)		

b/ If there is any changes on historical data, please highlight in RED

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	**Koi herpesvirus disease (KHV)** No positive case was detected (PCR) during DoF active surveillance programme. Koi herpesvirus is known to occur previously in the states of Perak (last reported 2022).
2	**Viral encephalopathy and retinopathy (VER)/ (VNN)** 1) Reported from DOF Active Surveillance. 2) Species affected: *Lates calcarifer* 3) Disease signs: 4) Pathogen: Viral Nervous Necrosis virus 5) Mortality rate: 80 percent 6) Economic loss: RM8,000.00 7) Names of infected areas: Terengganu 8) Preventive/control measures taken: Full eradication and fallowing carried out to remove all disease carrier. Ponds disinfected with chlorine. 9) Laboratory confirmation: Kedah Fisheries Biosecurity Centre. 10) Publications: None VNN is known to occur previously in the states of Terengganu (last reported 2021). The disease is known to occur previously in the state of Perak (2015) and Kelantan (May 2015).
3	**Tilapia lake virus (TiLV)** No positive case was detected (PCR) suring DoF active surveillance programme The disease is known to have occurred previously in Kedah (June 2017), Perlis (July 2017), Sarawak (July 2017), Negeri Sembilan (October 2017), Kedah and Sarawak (March 2018), and Terengganu (July 2018).
4	**Infection with Perkinsus olseni** No positive case was detected (PCR) during DoF active surveillance programme. Infection with Perkinsus olseni was suspected to occur in 2016, but not confirmed in a zone.
5	**Infection with white spot syndrome virus** 1) Reported from DOF Active Surveillance. 2) Species affected: *Penaeus vannamei* and *Penaeus monodon.* 3) Disease signs: No significant sign 4) Pathogen: White spot syndrome virus 5) Mortality rate: Unknown 6) Economic loss: Unknown 7) Names of infected areas: Johor, Pahang and Terengganu 8) Preventive/control measures taken: Undergoes break cycle by early harvest, drying of ponds, cleaning and disinfection of infected ponds and farming tools, farmer was advised to implement biosecurity measures and stocking with WSSV negative seeds in the next cycle; 9) Laboratory confirmation: Kedah Fisheries Biosecurity Centre, Johor Fisheries Biosecurity Centre 10) Publications: None
6	**Infection with infectious hypodermal and haematopoietic necrosis virus (IHHNV)** 1) Reported from DOF Active Surveillance. 2) Species affected: *Penaeus monodon.* 3) Disease signs: No significant sign 4) Pathogen: infectious hypodermal and haematopoietic necrosis virus 5) Mortality rate: Unknown 6) Economic loss: Unknown 7) Names of infected areas: Perak 8) Preventive/control measures taken: Undergoes break cycle by early harvest, drying of ponds, cleaning and disinfection of infected ponds and farming tools, farmer was advised to implement biosecurity measures and stocking with IHHNV negative seeds in the next cycle; 9) Laboratory confirmation: Kedah Fisheries Biosecurity Centre; 10) Publications: None IHHNV was known to occur previously in several states (last reported 2022).
7	**Infection with Infectious myonecrosis virus (IMNV)** 1) Reported from DOF Active Surveillance. 2) Species affected: *Penaeus monodon* 3) Disease signs: Whitish necrotic in distal abdominal segments and tail fan. 4) Pathogen: Infectious myonecrosis virus 5) Mortality rate: Less than 5% 6) Economic loss: Unreported 7) Names of infected areas: Selangor 8) Preventive/control measures taken: Undergoes break cycle by early harvest, drying of ponds, cleaning, and disinfection of infected ponds and ming tools, the farmer was advised to implement biosecurity measures and stocking with IMNV-negative seeds in the next cycle; 9) Laboratory confirmation: Selangor Fisheries Biosecurity Center; 10) Publications: None IMNV was known to occur previously in several states (last reported in 2022).
8	**Acute hepatopancreatic necrosis disease (AHPND)** 1) Reported DOF Active Surveillance. 2) Species affected: *Penaeus vannamei.* 3) Disease signs: No significant sign 4) Pathogen: *Vibrio parahaemolyticus* (Plasmid) 5) Mortality rate: Unreported; 6) Economic loss: Unreported; 7) Names of infected areas: Johor; 8) Preventive/control measures taken: Undergoes break cycle by total harvest, drying of ponds, cleaning and disinfection of infected ponds and famring tools, farmer was advised to implement biosecurity measures and stocking with AHPND negative seeds in the next cropping; 9) Laboratory confirmation: Johor Fisheries Biosecurity Center; 10) Publications: None AHPND was known to occur previously in several states (last reported 2022)
9	**Hepatopancreatic microsporidiosis caused by Enterocytozoon hepatopenaei (HPM-EHP)** 1) Reported from Johor, Pahang, Perak, Sarawak, Melaka, Selangor and Terengganu active surveillance; 2) Species affected: *Penaeus vannamei and Litopenaeus monodon;* 3) Disease signs: No significant sign; 4) Pathogen: *Enterocytozoon hepatopenaei;* 5) Mortality rate: Unreported; 6) Economic loss: Unreported; 7) Names of infected areas: Johor, Pahang, Perak, Sarawak, Melaka, Selangor and Terengganu 8) Preventive/control measures taken: Undergoes break cycle by early harvest, drying of ponds, cleaning and disinfection of infected ponds and farming tools, farmer was advised to implement biosecurity measures and stocking with EHP negative seeds in the next cropping; 9) Laboratory confirmation: Kedah Fisheries Biosecurity Center, Sarawak Fisheries Biosecurity Centre, Johor Fisheries Biosecurity Centre and Selangor Fisheries Biosecurity Centre; 10) Publications: None HPM-EHP is known to occur previously in the states of Selangor, Sarawak, Kedah, Pahang and Johor(last reported 2022

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