AQUATIC ANIMAL DISEASE REPORT - 2022

Country/territory: Malaysia														
Item		Disease status/occurrence code a/b/									T 1.0	Epidemiologi-		
DISEASES PREVALENT IN THE REGION						Mo	onth						Level of	cal comment
FINFISH DISEASES	January	February	March	April	May	June	July	August	September	October	November	December	diagnosis	numbers
OIE-listed diseases														
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	V	V	V	V	V	V	V	V	V	V	V	V	,	
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														
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														
Infection with Taura syndrome virus	-	-	-	-	-	-	-	-	-	_	-	-	I.III	
2. Infection with white spot syndrome virus	-	-	-	-	-	-	-	-	-	-	-	-	I,III	
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	5
5. Infection with infectious myonecrosis virus	+()	+()	+()	+()	+()	+()	+()	+()	+()	+()	+()	+()	III	6
6. Infection with Macrobrachium rosenbergii nodavirus (White Tail	- ()	1	- ()	1	, i	Ĭ	10	10	10		, ,	, in the second		
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	7
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			.00		.00		.00						***	
hepatopenaei (HPM-EHP)	+?()	+?()	+?()	+?()	+?()	+?()	+?()	+?()	+?()	+?()	+?()	+?()	III	8
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				-				-	-			1	-	
OIE-listed diseases	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
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		

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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	<u>Definition</u>	Occurrence code and symbol	<u>Definition</u>
symbol			
	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	The disease is present with clinical signs, and limited to one		
or more zones +()	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
	Confirmed infestation or infection using diagnostic tests, but no clinical signs observed (in domestic species or wildlife)	0000	wildlife.
	,	No information	No information is available regarding the presence or the absence of this disease during the reporting period
	Confirmed infestation or infection using diagnostic tests, but no clinical signs observed and limited to one or more	***	(in domestic species or wildlife).
	zones/compartments (in domestic species or wildlife)		
	The presence of the disease was suspected but not confirmed (in domestic species or wildlife)		
Disease suspected but			
	The presence of the disease was suspected but not confirmed		
zones	and limited to one or more zones/compartments (in domestic species or wildlife)		
?()			
b/ If there is any change	es 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. Koi herpesvirus disease (KHV) 1) Reported from DOF Active Surveillance. 2) Species affected: Cyprinus carpio. 3) Disease signs: No significant sign 4) Pathogen: Koi herpesvirus 5) Mortality rate: No mortality reported. 6) Economic loss: Unknown 7) Names of infected areas: Perak (July and August) 8) Preventive/control measures taken: Early harvest, farmer was advised to implement biosecurity measures and stocking with KHV negative fry in the next cycle; 9) Laboratory confirmation: Kedah Fisheries Biosecurity Center; 10) Publications: None Koi herpesvirus is known to occur previously in the states of Perak (last reported 2019). Viral encephalopathy and retinopathy (VER)/ (VNN) 1) Reported from DOF Active Surveillance. 2) Species affected: Lates calcarifer 3) Disease signs: None 4) Pathogen: Viral Nervous Necrosis virus 5) Mortality rate: Unreported 2 6) Economic loss: Unreported 7) Names of infected areas: Terengganu 8) Preventive/control measures taken: Traceability of fish fry is undergoing, 9) Laboratory confirmation: Kedah Fisheries Biosecurity Centre 10) Publications: None VNN is known to occur previously in the states of Perak (last reported 2015). The disease is known to occur previously in the state of Perak (2015) and Kelantan (May 2015). Tilapia lake virus (TiLV)

No positrive case was detected (PCR) suring DoF active surveillance programme

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.

Infection with Perkinsus olseni

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).

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5	Infection with infectious hypodermal and haematopoietic necrosis virus (IHHNV) 1) Reported from DOF Active Surveillance. 2) Species affected: Penaeus vannamei and 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: Kedah Pahang on 14 February, 19 September and 7 October, 8) Preventive/control measures taken: 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 2021).
6	Infection with Infectious myonecrosis virus (IMNV) 1) Reported from DOF Active Surveillance. 2) Species affected: Penaeus vannamei. 3) Disease signs: Whitish necrotic in distal abdominal segments and tail fan. 4) Pathogen: Infectious myonecrosis virus 5) Mortality rate: Unreported 6) Economic loss: Unreported 7) Names of infected areas: Johor and Pahang 8) Preventive/control measures taken: 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: Kedah and Johor Fisheries Biosecurity Center; 10) Publications: None IMNV was known to occur previously in several states (last reported in 2018).
7	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: Sabah; 8) Preventive/control measures taken: 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: Sarawak Fisheries Biosecurity Center; 10) Publications: None AHPND was known to occur previously in several states (last reported 2021)

Hepatopancreatic microsporidiosis caused by Enterocytozoon hepatopenaei (HPM-EHP)

- 1) Reported from Selangor, Sabah, Sarawak, Melaka, Johor, Negeri Sembilan, Pahang and Perak state from March to December active surveillance;
- 2) Species affected: Penaeus vannamei and Litopenaeus monodon;
- 3) Disease signs: No significant sign;
- 4) Pathogen: Enterocytozoon hepatopenaei;
- 5) Mortality rate: Unreported;
- 8 6) Economic loss: Unreported;
 - 7) Names of infected areas: Selangor, Sabah, Sarawak, Melaka, Johor, Negeri Sembilan, Pahang and Perak
 - 8) Preventive/control measures taken: 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 2021).
- 2. New aquatic animal health regulations introduced within past six months (with effective date):