

Prepared by:

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ANY OTHER DISEASES OF IMPORTANCE

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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

g/ Please use the following occurrence code:

<u>Occurrence code and symbol</u>	<u>Definition</u>	<u>Occurrence code and symbol</u>	<u>Definition</u>
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	<p>Koi herpesvirus disease (KHV) Known to occur previously in the state of Selangor (2017). Last occurrence was in state of Perak (April and June 2019)</p>
2	<p>Viral encephalopathy and retinopathy (VER)/ (VNN) No positive case was detected (PCR) during DoF active surveillance programme. The disease is known to occur previously in the state of Perak (2015) and Kelantan (May 2015).</p>
3	<p>Tilapia lake virus (TiLV) No positive case was detected (PCR) during 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).</p>
4	<p>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.</p>
5	<p>Infection with infectious hypodermal and haematopoietic necrosis virus (IHHNV) 1) Reported from DOF Active Surveillance. 2) Species affected: <i>Penaeus vannamei</i> and <i>Penaeus monodon</i> 3) Disease signs: No signs 4) Pathogen: infectious hypodermal and haematopoietic necrosis virus 5) Mortality rate: Unknown 6) Economic loss: Unknown 7) Names of infected areas: Selangor (8 April) and Pahang (20 May). 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: Johor Fisheries Biosecurity Centre and Selangor Fisheries Biosecurity Centre. 10) Publications: None IHHNV was known to occur previously in several states (last reported 2016).</p>
6	<p>Infection with Infectious myonecrosis virus (IMNV) No positive case was detected (PCR) during DoF active surveillance programme. IMNV is known to occur previously in the state of Sabah (2014) and Malacca (June 2018)</p>

7	<p>Acute hepatopancreatic necrosis disease (AHPND)</p> <ol style="list-style-type: none"> 1) Reported from DOF active surveillance. 2) Species affected: <i>Penaeus vannamei</i> 3) Disease signs: - Empty digestive tract, loss of tissue pigmentation. Hepatopancreas are atrophied and pale to whitish. 4) Pathogen: <i>Vibrio parahaemolyticus</i> (Plasmid) 5) Mortality rate: Unreported 6) Economic loss: Unreported 7) Names of infected areas: Pahang (20 May) and Johor (29 December) 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 AHPND negative seeds in the next cycle. 9) Laboratory confirmation: Johor Fisheries Biosecurity Center; 10) Publications: None <p>AHPND was known to occur previously in several states (last reported 2020).</p>
8	<p>Hepatopancreatic microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)</p> <ol style="list-style-type: none"> 1) Reported from DOF active surveillance 2) Species affected: <i>Penaeus vannamei</i> 3) Disease signs: - Different sizes and retarded growth in same batch of culture 4) Pathogen: <i>Enterocytozoon hepatopenaei</i> 5) Mortality rate: Unreported 6) Economic loss: Unreported 7) Names of infected areas: Selangor (8 April), Sarawak (20 May), Kedah (12 October), Pahang (22 November) and Johor (29 December). 8) Preventive/control measures taken: Partially harvest, farmer was advised to implement biosecurity measures and stocking with EHP negative seeds in the next cycle. 9) Laboratory confirmation: Kedah Fisheries Biosecurity Center, Sarawak Fisheries Biosecurity Centre, Johor Fisheries Biosecurity Centre and Selangor Fisheries Biosecurity Centre; 10) Publications: None <p>HPM-EHP is known to occur previously in the states of Malacca and Pahang (last reported 2020).</p>
<p>2. New aquatic animal health regulations introduced within past six months (with effective date):</p>	