

**AQUATIC ANIMAL DISEASE REPORT - 2021**

Country/territory: <b>INDIA</b>														
Item	Disease status/occurrence code a/b <sup>1</sup>												Level of diagnosis	Epidemiological comment numbers
	Month													
DISEASES PREVALENT IN THE REGION	January	February	March	April	May	June	July	August	September	October	November	December		
<b>FINFISH DISEASES</b>														
<b>OIE-listed diseases</b>														
1. Infection with epizootic haematopoietic necrosis virus	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					
3. Infection with spring viremia of carp virus	0000	0000	0000	0000	0000	0000	0000	0000	0000					
4. Infection with viral haemorrhagic septicaemia virus	0000	0000	0000	0000	0000	0000	0000	0000	0000					
5. Infection with <i>Aphanomyces invadans</i> (EUS)	+	+	-	-	-	-	+	+	-				III	1
6. Infection with red sea bream iridovirus	(2018)	(2018)	(2018)	(2018)	(2018)	(2018)	+	+	-				III	9
7. Infection with koi herpesvirus	0000	0000	0000	0000	0000	0000	0000	0000	0000					
<b>Non OIE-listed diseases</b>														
8. Grouper iridoviral disease	0000	0000	0000	0000	0000	0000	0000	0000	0000					
9. Viral encephalopathy and retinopathy	-	-	-	-	-	-	-	-	-					
10. Enteric septicemia of catfish	0000	0000	0000	0000	0000	0000	0000	0000	0000					
11. Carp Edema Virus Disease	-	-	-	+	+	-	-	-	-				III	2
12. Tilapia lake virus (TILV)	-	+	-	+	-	+	+	-	-				III	3
<b>MOLLUSC DISEASES</b>														
<b>OIE-listed diseases</b>														
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000					
2. Infection with <i>Perkinsus olseni</i>	+	-	-	-	-	-	-	-	-				III	4
3. Infection with abalone herpesvirus	0000	0000	0000	0000	0000	0000	0000	0000	0000					
4. Infection with <i>Xenohallitus californiensis</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000					
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000					
<b>Non OIE-listed diseases</b>														
6. Infection with <i>Marteilioides chuangmensis</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000					
7. Acute viral necrosis (in scallops)	0000	0000	0000	0000	0000	0000	0000	0000	0000					
<b>CRUSTACEAN DISEASES</b>														
<b>OIE-listed diseases</b>														
1. Infection with Taura syndrome virus	0000	0000	0000	0000	0000	0000	0000	0000	0000					
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					
4. Infection with infectious hypodermal and haematopoietic necrosis virus	+	-	-	+	-	-	-	-	-				III	6
5. Infection with infectious myonecrosis virus	+	+	-	-	+	+	+	+	+				III	7
6. Infection with <i>Macrobrachium rosenbergii</i> nodavirus (White Tail disease)	-	-	-	-	-	-	-	-	-					
7. Infection with <i>Hepatobacter penaei</i> (Necrotising hepatopancreatitis)	0000	0000	0000	0000	0000	0000	0000	0000	0000					
8. Acute hepatopancreatic necrosis disease (AHPND)	0000	0000	0000	0000	0000	0000	0000	0000	0000					
9. Infection with <i>Aphanomyces astaci</i> (Crayfish plague)	0000	0000	0000	0000	0000	0000	0000	0000	0000					
<b>Non OIE-listed diseases</b>														
10. Hepatopancreatic Microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	+	+	+	+	+	+	+	+	+				III	8
11. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000	0000	0000	0000	0000	0000	0000					
12. <i>Spiroplasma eriocheiris</i> infection	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					
<b>AMPHIBIAN DISEASES</b>														
<b>OIE-listed diseases</b>														
1. Infection with <i>Ranavirus</i> species	0000	0000	0000	0000	0000	0000	0000	0000	0000					
2. Infection with <i>Batrachochytrium dendrobatidis</i>	***	***	***	***	***	***	***	***	***					
3. Infection with <i>Batrachochytrium salamandrivorans</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000					
<b>Prepared by:</b>														
Name: Dr. J. Balaji														
Position: Joint Secretary (Fisheries)														
Date: 15-12-2021														
<b>ANY OTHER DISEASES OF IMPORTANCE</b>														
1														
2														

<b>DISEASES PRESUMED EXOTIC TO THE REGION<sup>2</sup></b>														
<b>LISTED BY THE OIE</b>														
<b>Finfish:</b> Infection with HPR-deleted or HPR0 salmon anaemia virus; Infection with salmon pancreas disease virus; Infection with <i>Gyrodactylus salaris</i> .														
<b>Molluscs:</b> Infection with <i>Marteilia refringens</i> ; <i>Perkinsus marinus</i> .														
<b>NOT LISTED BY THE OIE</b>														
<b>Finfish:</b> Channel catfish virus disease														

a) Please use the following occurrence code:

Occurrence code	Definition	Occurrence code	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 suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered

free of these diseases

If the historical data been adjusted please highlighted those information.

c) Listed by OIE as "under study"

### 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 <i>Aphanomyces invadans</i> was detected in <i>Cirrhinus mrigala</i> , <i>Labeo bata</i> , <i>Catla catla</i> , <i>L. rohita</i> , <i>Wallago attu</i> , <i>Puntius javanicus</i> and <i>Channa</i> sp. from very limited areas of Barabanki, Maharajganj and Balrampur districts of Uttar Pradesh; Nagaon district of Assam; and Mayiladuthurai district of Tamil Nadu. During the quarter July to September 2021, infection with <i>Aphanomyces invadans</i> was detected in <i>Etioplos suratensis</i> from very limited areas of Ernakulam, Kannur and Kollam districts in Kerala.
2	Infection with Carp edema virus was detected in <i>Cyprinus carpio koi</i> from very limited areas of Khordha district in Odisha and Ernakulam district in Kerala.
3	Tilapia lake virus disease was reported in <i>Oreochromis niloticus</i> from very limited areas of Thrissur, Malapuram, Kasargod and Kozhikode districts of Kerala. During the quarter July to September 2021, Tilapia lake virus disease was reported in <i>Oreochromis niloticus</i> from very limited areas of Mysuru and Mandya districts of Karnataka.
4	Infection with <i>Perkinsus olseni</i> was detected in farmed <i>Perna viridis</i> samples in from very limited areas of Ernakulam district, and wild <i>Perna viridis</i> and <i>Villorita cyprinoides</i> samples collected from west coast along Kozhikode & Ernakulam districts of Kerala.
5	Infection with white spot syndrome virus (WSSV) was reported on basis of clinical signs in <i>Litopenaeus vannamei</i> from very limited areas of East Godavari and West Godavari districts of Andhra Pradesh and Ernakulam district of Kerala. Infection with WSSV was also detected in <i>L. vannamei</i> from very limited areas of Krishna, East Godavari, West Godavari, Prakasam and Nellore districts of Andhra Pradesh; Dakshina Kannada district of Karnataka; Cuddalore, Nagapattinam, Kanchipuram and Ramanathapuram districts of Tamil Nadu and Thane district of Maharashtra. Infection with WSSV was also detected in <i>Penaeus monodon</i> from Ernakulam district of Kerala. During the quarter July to September 2021, infection with white spot syndrome virus (WSSV) was reported on basis of clinical signs in <i>Penaeus vannamei</i> from very limited areas of Raigad district of Maharashtra, East Godavari and West Godavari districts of Andhra Pradesh. Infection with WSSV was also detected in <i>P. vannamei</i> from very limited areas of East Godavari and West Godavari districts of Andhra Pradesh and Ramanathapuram and Kanchipuram districts of Tamil Nadu.
6	Infection with infectious hypodermal and haematopoietic necrosis virus was detected in wild samples of <i>Penaeus monodon</i> and <i>Penaeus merguensis</i> from landing centre in South Andaman district of Andaman and Nicobar Islands in the month of January and April respectively.
7	Infection with infectious myonecrosis virus was observed in <i>Litopenaeus vannamei</i> from very limited areas of Villupuram district of Tamil Nadu; Krishna district of Andhra Pradesh and Surat, Veraval and Junagadh districts of Gujarat. During the quarter July to September 2021, infection with infectious myonecrosis virus was observed in <i>Penaeus vannamei</i> from very limited areas of Nellore district of Andhra Pradesh; and Surat district of Gujarat.
8	Infection with <i>Enteroocytozoon hepatopenaei</i> was detected in <i>Litopenaeus vannamei</i> from very limited areas of Krishna, Nellore, East Godavari, West Godavari, Guntur and Prakasam districts of Andhra Pradesh; Junagadh and Surat districts of Gujarat; Uttara Kannada and Dakshina Kannada districts of Karnataka; Ramanathapuram, Theotokudi, Thiruvalur, Nagapattinam, Cuddalore, Pudukkottai and Kanchipuram districts of Tamil Nadu and Sri Muktsar Sahib and Fazilka districts of Punjab. During the quarter July to September 2021, infection with <i>Enteroocytozoon hepatopenaei</i> was detected based on clinical signs in <i>Penaeus vannamei</i> from very limited areas of Raigad district of Maharashtra. Infection with <i>Enteroocytozoon hepatopenaei</i> was also detected from very limited areas of Nellore, East Godavari, Srikakulam, Visakhapatnam and Guntur districts of Andhra Pradesh; Cuddalore, Nagapattinam, Pudukkottai, Kanchipuram, Thiruvalur, Ramanathapuram and Thanjavur districts of Tamil Nadu; Surat and Gir Somnath districts of Gujarat; Hisar district of Haryana and Thrissur district of Kerala, Dakshina Kannada, Udipi and Uttara Kannada District of Karnataka, Bathinda, Sri Muktsar Sahib, Fazilka and Mansa districts of Punjab.
9	Infection with Infectious spleen and kidney necrosis virus was detected in <i>Poecilia</i> sp., <i>Trichogaster lalius</i> , <i>Trichopodus trichopterus</i> and <i>Pterophyllum</i> sp. from very limited areas of Dakshina Kannada district of Karnataka.

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