

**AQUATIC ANIMAL DISEASE REPORT - 2023**

Country/Territory: Bangladesh		Disease status/occurrence code a/c/												Level of diagnosis	Epidemiological comment numbers
Item		January	February	March	April	May	June	July	August	September	October	November	December		
<b>DISEASES PREVALENT IN THE REGION</b>															
<b>FINFISH DISEASES</b>															
<b>WOAH-listed diseases</b>															
1. Infection with epizootic haematopoietic necrosis virus	0000	0000	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	0000	0000	
3. Infection with spring viraemia of carp virus	0000	0000	0000	0000	0000	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	0000	0000	0000	0000	0000	
5. Infection with <i>Aphanomyces invadans</i> (EUS)	-	+	+	+	+	+	+	+	+	+	+	+	+	+	PCR 1
6. Infection with red sea bream iridovirus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
7. Infection with Ictal herpesvirus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
8. Infection with tilapia lake virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
<b>Non WOAH-listed diseases</b>															
9. Groupers iridoviral disease	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
10. Viral encephalopathy and retinopathy	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
11. Enteric septicaemia of catfish	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
12. Carp Edema Virus Disease	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
<b>MOLLUSC DISEASES</b>															
<b>WOAH-listed diseases</b>															
1. Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
2. Infection with <i>Perkinsus olseni</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
3. Infection with abalone herpesvirus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
4. Infection with <i>Xenohalotis californiensis</i>	0000	0000	0000	0000	0000	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	0000	0000	0000	0000	0000	
<b>Non WOAH-listed diseases</b>															
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	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	0000	0000	
<b>CRUSTACEAN DISEASES</b>															
<b>WOAH-listed diseases</b>															
1. Infection with Taura syndrome virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
2. Infection with white spot syndrome virus	+	+	+	+	-	-	-	-	-	-	-	-	-	-	PCR 2
3. Infection with yellow head virus genotype 1	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
4. Infection with infectious hypodermal and haematopoietic necrosis virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
5. Infection with infectious myonecrosis virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
6. Infection with <i>Macrobrachium rosenbergii</i> nodavirus (White Tail disease)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
7. Infection with <i>Hepatobacter penaei</i> (Necrotising hepatopancreatitis)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
8. Acute hepatopancreatic necrosis disease (AHPND)	-	-	-	-	+	-	-	-	-	-	-	-	-	-	PCR 3
9. Infection with <i>Aphanomyces astaci</i> (Crayfish plague)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
10. Infection with decapod iridescent virus 1 (DIV1)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
<b>Non WOAH-listed diseases</b>															
11. Hepatopancreatic Microsporidiosis caused by <i>Enterocytozoon hepatopanacis</i> (HPM-EHP)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
12. Viral covert mortality disease (VCMD) of shrimps	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
13. <i>Spirontocaris eriocheiris</i> infection	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
<b>AMPHIBIAN DISEASES</b>															
<b>WOAH-listed diseases</b>															
1. Infection with <i>Ranavirus</i> species	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
2. Infection with <i>Batrachochytrium dendrobatidis</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
3. Infection with <i>Batrachochytrium salamandrivorans</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	
<b>Prepared by:</b>															
Name: Md. Nowser Ali															
Position: Assistant Director															
Date 19.06.2023															
<b>ANY OTHER DISEASES OF IMPORTANCE</b>															
1. Infection with <i>Streptococcus</i> of Tilapia ( <i>Oreochromis sp</i> )	-	-	+	+	+	-	-	+	+	+	+	+	-	-	PCR 4
2. Infection with <i>Aeromonas</i> of Shing ( <i>Heteropneustes fossilis</i> ), Gulsha ( <i>A. caviastris</i> ), Pabda ( <i>Ompok bimaculatus</i> ) and Pangus ( <i>P. hypophthalmus</i> )	+	+	-	+	+	+	+	+	+	+	+	+	-	-	PCR 5
<b>DISEASES PRESUMED EXOTIC TO THE REGION*</b>															
<b>LISTED BY THE WOAH</b>															
<b>Finfish:</b> Infection with HPR-delta 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 murinus</i> .															
<b>NOT LISTED BY THE WOAH</b>															
<b>Finfish:</b> Chamed catfish virus disease															
a) Please use the following occurrence code:															
<b>Occurrence code and symbol</b>	<b>Definition</b>	<b>Occurrence code and symbol</b>	<b>Definition</b>												
subtotal															
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 change 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 (usual 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 disease: describe details as much as possible.)	
Comment No.	
1	Infected species are Rohu ( <i>Labe rohita</i> ), Catla ( <i>Catla catla</i> ), Mrigal ( <i>Cirrhinus cirrhosis</i> ) with 0-20% mortality from February to December 2023 and Infection with this EUS occurs in Mymensingh, Jamalpur, Netrokona, Tangail districts. <i>Aphanomyces invadans</i> with symptoms of red spots or small to large ulcerative lesions on the fish body and detected through PCR in BFRI Laboratory from February to November 2023. Control measures are taken. Surveillance activities strengthened.
2	Live Crab ( <i>Scylla serrata</i> ) in 3 Crab Farms (Reg N0-144-Bagerhat, 232-Khulna and 352-Satkhira) are tested WSSV positive in Quality Control Laboratory, Khulna in January, February and March 2023. White Spot Syndrome Virus (WSSV) having No clearly visible white spot signs with 0% mortality. Preventive/control measures taken as i) infected crabs destroyed for disposed of ii) awareness training has been given iii) Surveillance activities enhanced. On the other hand, in April 2023, Black tiger shrimp ( <i>Penaeus monodon</i> ) in 3 ponds of shrimp farms covering area with 2.60 acre get infected with WSSV in April 2023 occurring mortality 20-30% decreasing having symptoms white spot signs with a diameter 0.5-2.0 mm in carapace. Lethargy and decreased appetite, loose cuticle, reddish coloration for shrimp. PCR test shows WSSV infection in FIQC laboratory, Khulna. Infected shrimp destroyed / disposed of and pond is properly disinfected and dried ii) awareness training has been given iii) Surveillance activities enhanced.
3	Black tiger shrimp ( <i>Penaeus monodon</i> ) in 1 ponds of shrimp farms covering area with 1.25 acre gets infected with AHPND occurring mortality 20% decreasing. PCR test shows AHPND infection by <i>V. parahaemolyticus</i> in May 2023 in FIQC laboratory, Khulna. Infected shrimp destroyed / disposed of and pond is properly disinfected and dried ii) awareness training has been given iii) Surveillance activities enhanced. iv) farm is followed. These ponds are on the way to be taken under culture as disinfection procedures have been completed.
4	Infection of Tilapia ( <i>Oreochromis sp.</i> ) with <i>Streptococcus agalactiae</i> having symptoms of loss of balance, pop eye, enlargement of liver, kidney and spleen occurred in some aquaculture establishments in Mymensingh and Netrokona in Mymensingh Division and Gazipur, Kishoreganj in Dhaka Division with 5-20% mortality. Pathogen is detected in March, April, May, October, November 2023 in BFRI laboratory Mymensingh. The same species were infected with the same pathogen detected in the same laboratory having same symptoms from 20-70% with mortality in the same area including additional Noakhali district of Chattagram Division in August and September 2023. Control measures were taken.
5	Infection of Stinging catfish ( <i>Heteropneustes fossilis</i> ), Pangus ( <i>Pangasianodon hypophthalmus</i> ), Gulsha ( <i>Mystus caavsius</i> ) and Pabda ( <i>Ompok bimaculatus</i> ) with <i>Aeromonas sp.</i> having symptoms of Red pop eye, red spot and lesion on body occurred in some ponds of Dhaka and Mymensingh Division with 5-45% mortality. Pathogen is detected in January, February, April, May, June, October and November 2023 for the mentioned species in BFRI laboratory. Control measures were taken.
6	
2. New aquatic animal health regulations introduced within past six months (with effective date):	