

**AQUATIC ANIMAL DISEASE REPORT - 2022**

Country/territory: **PHILIPPINES**

Item	Disease status/occurrence code a/b/												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	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		
4. Infection with viral haemorrhagic septicaemia virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
5. Infection with <i>Aphanomyces invadans</i> (EUS)	-	-	-	-	-	-	-	-	-	-	-	-	I	1
6. Infection with red sea bream iridovirus	-	-	-	-	-	-	-	-	-	-	-	-	I, III	2
7. Infection with koi herpesvirus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
<b>Non OIE-listed diseases</b>														
8. Grouper iridoviral disease	-	-	-	-	-	-	-	-	-	-	-	-		
9. Viral encephalopathy and retinopathy	-	-	-	-	-	-	-	-	-	-	-	-	I, III	3
10. Enteric septicaemia of catfish	***	***	***	***	***	***	***	***	***	***	***	***		
11. Carp Edema Virus Disease	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
12. Tilapia lake virus (TLV)	-	-	+	-	+	-	-	-	+	-	+	-	I, III	4
<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	0000	0000	0000		
2. Infection with <i>Perkinsus olseni</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
3. Infection with abalone herpesvirus	***	***	***	***	***	***	***	***	***	***	***	***		
4. Infection with <i>Xenohaliotis californiensis</i>	***	***	***	***	***	***	***	***	***	***	***	***		
5. Infection with <i>Bonamia ostreae</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
<b>Non OIE-listed diseases</b>														
6. Infection with <i>Marteilioides chungmuensis</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
7. Acute viral necrosis (in scallops)	***	***	***	***	***	***	***	***	***	***	***	***		
<b>CRUSTACEAN DISEASES</b>														
<b>OIE-listed diseases</b>														
1. Infection with Taura syndrome virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	I, III	5
2. Infection with white spot syndrome virus	+	+	+	+	+	+	+	+	-	+	-	+	I, III	6
3. Infection with yellow head virus genotype 1	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	I, III	7
4. Infection with infectious hypodermal and haematopoietic necrosis virus	-	+	+	+	+	+	+	+	-	+	-	-	I, III	8
5. Infection with infectious myonecrosis virus	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	I, III	9
6. Infection with <i>Macrobrachium rosenbergii</i> nodavirus (White Tail disease)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	I, III	
7. Infection with <i>Hepatobacter penaei</i> (Necrotising hepatopancreatitis)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	I, III	10
8. Acute hepatopancreatic necrosis disease (AHPND)	+	+	-	+	+	+	+	+	-	+	-	+	I, III	11
9. Infection with <i>Aphanomyces astaci</i> (Crayfish plague)	0000	0000	0000	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)	-	+	+	-	+	+	+	+	-	+	+	+	I, III	12
11. Viral covert mortality disease (VCMMD) of shrimps	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000		
12. <i>Spiroplasma eriocheiris</i> 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		
<b>AMPHIBIAN DISEASES</b>														
<b>OIE-listed diseases</b>														
1. Infection with <i>Ranavirus</i> species	***	***	***	***	***	***	***	***	***	***	***	***		
2. Infection with <i>Batrachochytrium dendrobatidis</i>	***	***	***	***	***	***	***	***	***	***	***	***		
3. Infection with <i>Batrachochytrium salamandrivorans</i>	***	***	***	***	***	***	***	***	***	***	***	***		

Prepared by:  
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Position: Veterinarian IV  
Date: December 15, 2022

ANY OTHER DISEASES OF IMPORTANCE													
1													
2													

**DISEASES PRESUMED EXOTIC TO THE REGION<sup>h</sup>**  
**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><b>Infection with <i>Aphanomyces invadans</i> (EUS)</b></p> <p><i>First Quarter</i>  EUS was not detected by gross morphological examination in <i>Anguilla bicolor</i> (grow-out) from Batangas. Examination was conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Second Quarter</i>  EUS was not detected by gross morphological examination in <i>Anguilla bicolor</i> (grow out) and <i>Tilapia</i> (fingerlings and grow out). Eel samples were taken from Batangas, Zambales, and Metro Manila. <i>Tilapia</i> samples were taken from Nueva Ecija and Batangas. Examination was conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Third Quarter</i>  EUS was not detected by gross morphological examination in <i>Anguilla bicolor</i> (grow out). Eel samples were taken from Isabela, General Santos, and Bulacan. Examination was conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Fourth Quarter</i>  EUS was not detected by gross morphological examination in eel (grow out) and <i>tilapia</i> (fry). Eel samples were taken from Zambales, Cavite, Tarlac, South Cotabato, and Bulacan. <i>Tilapia</i> samples were taken from Nueva Ecija. Examination was conducted by BFAR Central Fish Health Laboratory.</p>
2	<p><b>Red Seabream Iridoviral Disease (RSID)</b></p> <p><i>First Quarter</i>  <i>Tilapia</i> (fingerlings) and <i>Koi</i> (grow out) were subjected to gross morphological examination and Polymerase Chain Reaction (PCR) analysis and showed negative results for Iridoviral disease. Samples were collected from Science City of Munoz and Caloocan City. Examination was conducted by BFAR Central and Southeast Asian Fisheries Development Center (SEAFDEC) Fish Health Laboratories.</p> <p><i>Second Quarter</i>  <i>Tilapia</i> (fingerlings and grow out) and <i>Seabass</i> (grow out) were subjected to gross morphological examination and Polymerase Chain Reaction (PCR) analysis and showed negative results for Iridoviral disease. Samples were collected from Zambales, Nueva Ecija, Agusan del Norte, Agusan del Sur, and Batangas. Examination was conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Third Quarter</i>  <i>Tilapia</i> (fingerlings and grow out), wrasse, tropical fish, tomato clown fish, catfish, milkfish, damsels and cardinals were subjected to gross morphological examination and Polymerase Chain Reaction (PCR) analysis and showed negative results for Iridoviral disease. Samples were collected from Isabela Cebbu, Bohol, Metro Manila, Nueva Ecija, and Pangasinan. Examination was conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Fourth Quarter</i></p>

	<p>Tilapia (breeder, fry, and grow out), milkfish, and grouper were subjected to gross morphological examination and Polymerase Chain Reaction (PCR) analysis and showed negative results for Iridoviral disease. Samples were collected from Batangas, Zambales, Agusan Del Norte, Metro Manila, Cavite, Tarlac, Pampanga, Camarines Sur, Camarines Norte, Nueva Ecija, Bohol, Surigao Del Norte, Surigao del Sur, South Cotabato, Bulacan, Davao Oriental. Examination was conducted by BFAR Central Fish Health Laboratory and SEAFDEC.</p>
3	<p><b>Viral Encephalopathy and Retinopathy (VER)</b>  <i>First Quarter</i>  Milkfish (broodstock and grow out), Seabass, Tilapia (fingerling), <i>Decapterus kurroides</i>, <i>Decapterus macrosoma</i>, <i>Siganus guttatus</i>, <i>Euthynnus affinis</i>, <i>Epinephelus</i> sp., and <i>Trachinotus blochii</i> were subjected to Polymerase Chain Reaction (PCR) analysis and showed negative results for VER. Samples were collected from Agusan del Norte, Iloilo, Nueva Ecija, and Guimaras. Examination was conducted by BFAR Central and Southeast Asian Fisheries Development Center (SEAFDEC) Fish Health Laboratories.</p> <p><i>Second Quarter</i>  Tilapia samples (fingerlings and grow out) were subjected to gross morphological examination and Polymerase Chain Reaction (PCR) analysis and showed negative results for VER. Samples were collected from Agusan del Sur, Agusan del Norte, Nueva Ecija, and Batangas. Examination was conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Third Quarter</i>  Tilapia samples (fingerlings and grow out), wrasse, tropical fish, tomato clown fish, koi, milkfish, eel, siganid, and damsel and cardinals were subjected to gross morphological examination and Polymerase Chain Reaction (PCR) analysis and showed negative results for VER. Samples were collected from Isabela, Cebu, Bohol, Metro Manila, Pangasinan, Bulacan, and Cagayan. Examination was conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Fourth Quarter</i>  Tilapia (breeder, fry, and grow out), milkfish, grouper, <i>Siganus guttatus</i> were subjected to gross morphological examination and Polymerase Chain Reaction (PCR) analysis and showed negative results for VER. Samples were collected from Nueva Ecija, Batangas, Oriental Mindoro, Agusan Del Norte, Camarines Sur, Camarines Norte, Bohol, Surigao Del Norte, Surigao del Sur, Occidental Mindoro, and Davao Oriental. Examination was conducted by BFAR Central Fish Health Laboratory and SEAFDEC.</p>
4	<p><b>Tilapia Lake Virus (TILV)</b>  <i>First Quarter</i>  <b>Origin of the disease or pathogen (history of the disease)</b> - detected in 1 farm  <b>Species Affected:</b> <i>Oreochromis</i> spp.  <b>Pathogen:</b> Tilapia Lake Virus  <b>Size of infected areas or names of infected areas:</b> Laguna  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were analyzed in BFAR regional laboratory using insulated isothermal Polymerase Chain Reaction method.</p> <p><i>Second Quarter</i>  <b>Origin of the disease or pathogen (history of the disease)</b> - detected in 1 farm  <b>Species Affected:</b> Tilapia  <b>Pathogen:</b> Tilapia Lake Virus  <b>Size of infected areas or names of infected areas:</b> Agusan del Norte  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were submitted to BFAR Regional and Central Fish Health Laboratory</p> <p><i>Third Quarter</i>  <b>Origin of the disease or pathogen (history of the disease)</b> - detected in 1 facility  <b>Species Affected:</b> Tilapia (fingerling)  <b>Pathogen:</b> Tilapia Lake Virus  <b>Size of infected areas or names of infected areas:</b> Metro Manila  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were submitted to Central Fish Health Laboratory</p> <p><i>Fourth Quarter</i>  <b>Origin of the disease or pathogen (history of the disease)</b> - detected in 1 facility  <b>Species Affected:</b> Tilapia (juvenile)  <b>Pathogen:</b> Tilapia Lake Virus  <b>Size of infected areas or names of infected areas:</b> Agusan del Norte  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were submitted to Central and Regional Fish Health Laboratory</p>
5	<p><b>Taura Syndrome (TS)</b>  <i>First Quarter</i>  <i>P. monodon</i> (Zoea, Mysis, post-larvae, and grow-out), <i>P. vannamei</i> (post larvae, grow-out, juvenile, and broodstock), <i>M. dacqueti</i> (post larvae) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Taura Syndrome. Samples were collected from Batangas, Bohol, Cebu, Davao del Sur, Davao de Oro, Davao Oriental, Oriental Mindoro, Pangasinan, Quezon Province, Negros Occidental, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p> <p><i>Second Quarter</i>  <i>P. monodon</i> (zoea, post-larvae, and grow-out), <i>P. vannamei</i> (post larvae, grow-out, juvenile, and broodstock), <i>M. dacqueti</i> (post larvae) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Taura Syndrome. Samples were collected from Agusan del Norte, Bulacan, Davao del Sur, Davao Oriental, Leyte, Marinduque, Oriental Mindoro, Pangasinan, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p> <p><i>Third Quarter</i>  <i>P. monodon</i> (grow-out), and <i>P. vannamei</i> (post larvae, grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Taura Syndrome. Samples were collected from Batangas, Bohol, Cagayan, Cebu, Leyte, Negros Oriental, Oriental Mindoro, Palawan, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories.</p> <p><i>Fourth Quarter</i>  <i>P. monodon</i> (broodstock and grow-out), and <i>P. vannamei</i> (post larvae, grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Taura Syndrome. Samples were collected from Batangas, Bohol, Camarines Norte, Camarines Sur, Cebu, Davao del Sur, Occidental Mindoro, Oriental Mindoro, Quezon, Zambales, and Negros Occidental. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories and SEAFDEC.</p>
	<p><b>White Spot Disease (WSD)</b>  <i>First Quarter</i>  <b>Origin of the disease or pathogen (history of the disease)</b> - detected in 17 farms  <b>Species Affected:</b> <i>P. vannamei</i> (Post Larvae, and Grow out), <i>P. monodon</i> (eggs, Post Larvae, Broodstock), <i>M. rosenbergii</i> (Grow out), and <i>Scylla serrata</i> (Broodstock)  <b>Pathogen:</b> White Spot Syndrome Virus  <b>Size of infected areas or names of infected areas:</b> Agusan del Norte, Bohol, Bulacan, Cebu, Iloilo, Negros Occidental, Leyte, Pampanga, Metro Manila, Quezon Province, and Zambales  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were analyzed using PCR technique in BFAR Central Office and Regional Laboratories, and SEAFDEC.</p> <p><i>Second Quarter</i></p>

**Origin of the disease or pathogen (history of the disease)** - detected in 17 farms

**Species Affected:** P. monodon, P. vannamei, Scylla serrata, and M. dacqueti

**Pathogen:** White Spot Syndrome Virus

**Size of infected areas or names of infected areas:** Agusan del Norte, Bataan, Bohol, Cagayan, Camarines Sur, Cebu, Davao Oriental, Iloilo, Leyte, Negros Occidental, Occidental Mindoro, Pangasinan, and Surigao del Sur

**Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):** Samples were sent to BFAR Central and Regional Laboratories, and SEAFDEC Fish Health Laboratory

	<p><i>Third Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 7 farms  <b>Species Affected:</b> <i>P. vannamei</i> (Post Larvae, and Grow out), <i>P. monodon</i> (Post Larvae and Grow out)  <b>Pathogen:</b> White Spot Syndrome Virus  <b>Size of infected areas or names of infected areas:</b> Agusan del Norte, Bulacan, Iloilo, Negros Occidental, and Zambales  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were analyzed using PCR technique in BFAR Central Office and Regional Laboratories, and SEAFDEC.</p> <p><i>Fourth Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 19 farms  <b>Species Affected:</b> <i>P. vannamei</i> (Grow out), <i>P. monodon</i> (Grow out), <i>S. serrata</i> (Grow out)  <b>Pathogen:</b> White Spot Syndrome Virus  <b>Size of infected areas or names of infected areas:</b> Agusan del Norte, Bataan, Camarines Sur, Occidental Mindoro, Oriental Mindoro, Quezon, Capiz, Iloilo, Negros Occidental, Negros Oriental, and Antique  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were analyzed using PCR technique in BFAR Central Office and Regional Laboratories, and SEAFDEC.</p>
7	<p><b>Infection with Yellow Head Virus Genotype 1 (YHV)</b></p> <p><i>First Quarter</i></p> <p><i>P. monodon</i> (zoea, mysis, post-larvae and grow-out), <i>P. vannamei</i> (post larvae, grow-out, and broodstock), and <i>M. rosenbergii</i> (grow out) analyzed using Polymerase Chain Reaction (PCR) test showed negative result for Yellow Head Virus. Samples were collected from Batangas, Bohol, Camarines Norte, Camarines Sur, Catanduanes, Cebu, Davao de Oro, Davao del Sur, Davao Oriental, Lanao del Norte, Masbate, Misamis Oriental, Negros Occidental, Oriental Mindoro, Pangasinan, Quezon Province, and Zambales. Examination was conducted by BFAR Central and Regional Fish health laboratories.</p> <p><i>Second Quarter</i></p> <p><i>P. monodon</i> (post-larvae and grow-out), and <i>P. vannamei</i> (post larvae, grow-out, juvenile, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Yellow Head Disease. Samples were collected from Agusan del Norte, Bulacan, Camarines Norte, Camarines Sur, Catanduanes, Davao del Sur, Davao Oriental, Leyte, Marinduque, Oriental Mindoro, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p> <p><i>Third Quarter</i></p> <p><i>P. monodon</i> (grow-out, and broodstock), and <i>P. vannamei</i> (grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Yellow Head Disease. Samples were collected from Batangas, Bohol, Bulacan, Cagayan, Cebu, Leyte, Negros Oriental, Oriental Mindoro, Palawan, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p> <p><i>Fourth Quarter</i></p> <p><i>P. monodon</i> (grow-out), <i>P. indicus</i> (grow out) and <i>P. vannamei</i> (post larvae, grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Yellow Head Disease. Samples were collected from Batangas, Camarines Norte, Camarines Sur, Cebu, Davao del sur, Negros Occidental, Occidental Mindoro, Oriental Mindoro, Quezon, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p>
8	<p><b>Infection with Infectious Hypodermal and Haematopoietic Necrosis Virus (IHHNV)</b></p> <p><i>First Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 11 farms  <b>Species Affected:</b> <i>P. monodon</i> (eggs, post larvae, grow out, and broodstock) and <i>P. vannamei</i> (grow out)  <b>Pathogen:</b> Infectious Hypodermal and Hematopoietic Necrosis Virus  <b>Size of infected areas or names of infected areas:</b> Bohol, Catanduanes, Iloilo, Negros Occidental, Pampanga, Quezon Province, and Zambales  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Central and Regional Laboratories, and SEAFDEC and analyzed using PCR technique.</p> <p><i>Second Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 3 farms  <b>Species Affected:</b> <i>P. monodon</i> and <i>P. vannamei</i>  <b>Pathogen:</b> Infectious Hypodermal and Hematopoietic Necrosis Virus  <b>Size of infected areas or names of infected areas:</b> Bataan, Catanduanes, and Camarines Norte  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Regional Laboratories</p> <p><i>Third Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 8 farms  <b>Species Affected:</b> <i>P. monodon</i> and <i>P. vannamei</i>  <b>Pathogen:</b> Infectious Hypodermal and Hematopoietic Necrosis Virus  <b>Size of infected areas or names of infected areas:</b> Palawan and Zambales  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Central and Regional Laboratories</p> <p><i>Fourth Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 1 farm  <b>Species Affected:</b> <i>P. vannamei</i>  <b>Pathogen:</b> Infectious Hypodermal and Hematopoietic Necrosis Virus  <b>Size of infected areas or names of infected areas:</b> Batangas  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Central and Regional Laboratories</p>
9	<p><b>Infectious Myonecrosis (IMN)</b></p> <p><i>First Quarter</i></p> <p><i>P. monodon</i> (zoea, mysis, post-larvae and grow-out), <i>P. vannamei</i> (post-larvae, grow-out, and broodstock), and <i>Macrobrachium rosenbergii</i> (grow out) analyzed using Polymerase Chain Reaction (PCR) test showed negative for Infectious Myonecrosis. Samples were collected from Batangas, Bohol, Bulacan, Camarines Norte, Camarines Sur, Catanduanes, Cebu, Davao de Oro, Davao del Sur, Davao Oriental, Iloilo, Negros Occidental, Oriental Mindoro, Pangasinan, Quezon, and Zambales. Examinations were conducted by BFAR Central and Regional Laboratories.</p> <p><i>Second Quarter</i></p> <p><i>P. monodon</i> (post-larvae and grow-out), and <i>P. vannamei</i> (post larvae, grow-out, juvenile, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Infectious Myonecrosis. Samples were collected from Agusan del Norte, Aklan, Bohol Bulacan, Davao del Sur, Iloilo, Leyte, Marinduque, Oriental Mindoro, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories..</p> <p><i>Third Quarter</i></p> <p><i>P. monodon</i> (grow-out and broodstock), and <i>P. vannamei</i> (grow-out and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Infectious Myonecrosis. Samples were collected from Batangas, Bohol, Bulacan, Cagayan, Cebu, Leyte, Negros Oriental, Oriental Mindoro, Palawan, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories..</p> <p><i>Fourth Quarter</i></p>

	<p><i>P. monodon</i> (post larvae, broodstock and grow-out), <i>P. indicus</i> (grow out) and <i>P. vannamei</i> ( grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Infectious Myonecrosis. Samples were collected from Aklan, Batangas, Bohol, Camarines Norte, Camarines Sur, Cebu, Davao del sur, Iloilo, Negros Occidental, Occidental Mindoro, Oriental Mindoro, Quezon, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p>
10	<p><b>Necrotising Hepatopancreatitis (NHP)</b></p> <p><i>First Quarter</i></p> <p><i>P. vannamei</i> (post larvae, grow out, and broodstock), and <i>P. monodon</i> (zoea, mysis, and grow-out) analyzed using Conventional PCR test showed negative for Necrotising Hepatopancreatitis. Samples were collected from Batangas, Bohol, Davao del Sur, Oriental Mindoro, Quezon, and Zambales. Examinations were conducted by BFAR Central laboratory.</p> <p><i>Second Quarter</i></p> <p><i>P. monodon</i> (post-larvae and grow-out), and <i>P. vannamei</i> (post larvae, grow-out, juvenile, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for NHP. Samples were collected from Agusan del Norte, Bohol, Bulacan, Davao del Sur, Leyte, Marinduque, and Oriental Mindoro. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories.</p> <p><i>Third Quarter</i></p> <p><i>P. monodon</i> (grow-out and broodstock), and <i>P. vannamei</i> (grow-out and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for NHP. Samples were collected from Batangas, Bohol, Bulacan, Cagayan, Cebu, Leyte, Negros Oriental, Oriental Mindoro, Palawan, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories..</p> <p><i>Fourth Quarter</i></p> <p><i>P. monodon</i> (broodstock and grow-out), <i>P. indicus</i> (grow out) and <i>P. vannamei</i> ( post-larvae, grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Necrotising Hepatopancreatitis. Samples were collected from, Batangas, Bohol, Camarines Norte, Camarines Sur, Cebu, Davao del sur, Occidental Mindoro, Oriental Mindoro, Quezon, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p>
11	<p><b>Acute Hepatopancreatic Necrosis Disease (AHPND)</b></p> <p><i>First Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 5 farms  <b>Species Affected:</b> <i>P. vannamei</i> (post larvae and grow out), and <i>P. monodon</i> (nauplii and broodstock)  <b>Pathogen:</b> <i>V. parahemolyticus</i> (AHPND)  <b>Size of infected areas or names of infected areas:</b> Cebu, Negros Occidental, Pampanga, and Iloilo  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR regional Laboratory and SEAFDEC Fish Health Laboratory and analyzed using PCR technique.</p> <p><i>Second Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 14 farms  <b>Species Affected:</b> <i>P. vannamei</i> and <i>P. monodon</i>  <b>Pathogen:</b> <i>Vibrio parahemolyticus</i> (AHPND)  <b>Size of infected areas or names of infected areas:</b> Bataan, Cagayan, Cebu, Iloilo, Negros Occidental, Occidental Mindoro, and Oriental Mindoro  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Central and Regional Laboratories, and SEAFDEC Fish Health Laboratory.</p> <p><i>Third Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 8 farms  <b>Species Affected:</b> <i>P. vannamei</i>  <b>Pathogen:</b> <i>Vibrio parahemolyticus</i> (AHPND)  <b>Size of infected areas or names of infected areas:</b> Bulacan, Cagayan, Cebu, Oriental Mindoro, and Palawan  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Central and Regional Laboratories, and SEAFDEC Fish Health Laboratory.</p> <p><i>Fourth Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 5 farms  <b>Species Affected:</b> <i>P. vannamei</i> and <i>P. monodon</i>  <b>Pathogen:</b> <i>Vibrio parahemolyticus</i> (AHPND)  <b>Size of infected areas or names of infected areas:</b> Batangas, Oriental Mindoro, Occidental Mindoro and Quezon  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Central and Regional Laboratories, and SEAFDEC Fish Health Laboratory.</p>
12	<p><b>Hepatopancreatic Microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)</b></p> <p><i>First Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 2 farms  <b>Species Affected:</b> <i>P. vannamei</i> (post larvae) and <i>P. monodon</i> (Post larvae)  <b>Pathogen:</b> <i>Enterocytozoon hepatopenaei</i>  <b>Size of infected areas or names of infected areas:</b> Iloilo and Pampanga  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were analyzed using PCR technique in BFAR regional laboratory and SEAFDEC Fish Health Laboratory.</p> <p><i>Second Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 3 farms  <b>Species Affected:</b> <i>P. vannamei</i>  <b>Pathogen:</b> <i>Enterocytozoon hepatopenaei</i>  <b>Size of infected areas or names of infected areas:</b> Oriental Mindoro, and Zambales  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were submitted to BFAR Regional Laboratories</p> <p><i>Third Quarter</i></p> <p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 9 farms  <b>Species Affected:</b> <i>P. monodon</i>, <i>P. vannamei</i>, and <i>M. rosenbergii</i>  <b>Pathogen:</b> <i>Enterocytozoon hepatopenaei</i>  <b>Size of infected areas or names of infected areas:</b> Iloilo, Aurora, Batangas, Bulacan, Oriental Mindoro, and Zambales  <b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were submitted to BFAR Central and Regional Laboratories, and SEAFDEC</p> <p><i>Fourth Quarter</i></p>

	<p><b>Origin of the disease or pathogen (history of the disease)</b> - detected in 3 farms</p> <p><b>Species Affected:</b> <i>P. vannamei</i> (Grow-out and Post Larvae) and <i>P. monodon</i></p> <p><b>Pathogen:</b> Enterocytozoon hepatopenaei (HPM-EHP)</p> <p><b>Size of infected areas or names of infected areas:</b> Zambales, Capiz, and Iloilo</p> <p><b>Samples sent to national or international laboratories for confirmation (indicate the name of laboratories):</b> Samples were sent to BFAR Central and Regional Laboratories, and SEAFDEC Fish Health Laboratory.</p>
13	<p><b>Viral Covert Mortality Disease in Shrimp</b></p> <p><i>First Quarter</i></p> <p><i>Second Quarter</i></p> <p><i>P. monodon</i> (post-larvae and grow-out), and <i>P. vannamei</i> (post larvae, grow-out, juvenile, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for VCMD. Samples were collected from Agusan del Norte, Davao del Sur, Leyte, Marinduque, and Oriental Mindoro. Examinations were conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Third Quarter</i></p> <p><i>P. monodon</i> (grow-out), and <i>P. vannamei</i> (grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for VCMD. Samples were collected from Batangas, Bohol, Bulacan, Cagayan, Cebu, Leyte, Negros Oriental, Oriental Mindoro, Palawan, and Zambales. Examinations were conducted by BFAR Central Fish Health Laboratory.</p> <p><i>Fourth Quarter</i></p> <p><i>P. monodon</i> (post-larvae and grow-out), <i>P. indicus</i> (grow out) and <i>P. vannamei</i> (grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Viral Covert Mortality Disease in Shrimp. Samples were collected from, Davao del sur, Occidental Mindoro, Zambales, Camarines Sur, Camarines Norte, Cebu, Batangas, Quezon, and Oriental Mindoro. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p>
14	<p><b>Decapod iridescent Virus 1</b></p> <p><i>First Quarter</i></p> <p><i>Second Quarter</i></p> <p><i>P. monodon</i> (post-larvae and grow-out), and <i>P. vannamei</i> (post larvae, grow-out, juvenile, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for DIV-1. Samples were collected from Agusan del Norte, Aklan, Davao del Sur, Iloilo, Laguna, Leyte, Marinduque, Oriental Mindoro, and Surigao del Sur. Examinations were conducted by BFAR Central and Regional Fish Health Laboratory.</p> <p><i>Third Quarter</i></p> <p><i>P. monodon</i> (grow-out and broodstock), and <i>P. vannamei</i> (post larvae, grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for DIV-1. Samples were collected from Batangas, Bohol, Bulacan, Cagayan, Cebu, Leyte, Negros Oriental, Negros Occidental, Oriental Mindoro, Palawan, Pangasinan, and Zambales. Examinations were conducted by BFAR Central and Regional Fish Health Laboratory.</p> <p><i>Fourth Quarter</i></p> <p><i>P. vannamei</i> (post-larvae, grow-out, and broodstock) analyzed using Polymerase Chain Reaction (PCR) test showed negative results for Viral Decapod Iridescent Virus. Samples were collected from, Davao del sur, Occidental Mindoro, Zambales, Cebu, Ilo Ilo, Misamis Oriental, and Agusan del Norte. Examinations were conducted by BFAR Central and Regional Fish Health Laboratories, and Southeast Asian Fisheries Development Center (SEAFDEC).</p>
<p><b>2. New aquatic animal health regulations introduced within past six months (with effective date):</b></p>	