

**AQUATIC ANIMAL DISEASE REPORT - 2021**

Country/territory: **Australia**

| 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                                    | (-2012)                             | (-2012)    | (-2012) | (-2012)    | (-2012)  | (-2012)  | (-2012)  | (-2012)  | (-2012)   | (-2012)  | (-2012)  | (-2012)  | (-2012)            | III                             | 1  |
| 2. Infection with infectious haematopoietic necrosis virus                                   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 3. Infection with spring viremia of carp virus   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 4. Infection with viral haemorrhagic septicaemia virus                                       | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 5. Infection with <i>Aphanomyces invadans</i> (EUS)  | (-2017)                             | (-2017)    | (-2017) | + (2021)   | + (2021) | + (2021) | - (2021) | - (2021) | - (2021)  | - (2021) | - (2021) | - (2021) | - (2021)           |                                 | 2  |
| 6. Infection with red sea bream iridovirus   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 7. Infection with koi herpesvirus  | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| <b>Non OIE-listed diseases</b>   |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| 8. Grouper iridoviral disease  | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 9. Viral encephalopathy and retinopathy  | (-2020)                             | (-2020)    | (-2020) | (-2020)    | (-2020)  | + (2021) | + (2021) | + (2021) | + (2021)  | + (2021) | - (2021) | + (2021) | + (2021)           | III                             | 3  |
| 10. Enteric septicaemia of catfish   | (-2014)                             | (-2014)    | (-2014) | (-2014)    | (-2014)  | (-2014)  | (-2014)  | (-2014)  | (-2014)   | (-2014)  | (-2014)  | (-2014)  | (-2014)            |                                 | 4  |
| 11. Carp Edema Virus Disease   | ***                                 | ***        | ***     | ***        | ***      | ***      | ***      | ***      | ***       | ***      | ***      | ***      | ***                |                                 |    |
| 12. Tilapia lake virus (TiLV)  | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| <b>MOLLUSC DISEASES</b>  |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| <b>OIE-listed diseases</b>   |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| 1. Infection with <i>Bonamia exitiosa</i>  | (-2019)                             | (-2019)    | (-2019) | + ? (2021) | (-2021)  | (-2021)  | (-2021)  | (-2021)  | (-2021)   | (-2021)  | (-2021)  | (-2021)  | (-2021)            |                                 | 5  |
| 2. Infection with <i>Perkinsus olseni</i>  | (-2020)                             | + ? (2021) | (-2021) | (-2021)    | (-2021)  | (-2021)  | (-2021)  | (-2021)  | (-2021)   | (-2021)  | (-2021)  | (-2021)  | (-2021)            |                                 | 6  |
| 3. Infection with abalone herpesvirus  | (-2011)                             | (-2011)    | (-2011) | (-2011)    | + (2021) | + (2021) | + (2021) | + (2021) | + (2021)  | + (2021) | + (2021) | + (2021) | + (2021)           | III                             | 7  |
| 4. Infection with <i>Xenohalotis californiensis</i>  | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 5. Infection with <i>Bonamia ostreae</i>   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| <b>Non OIE-listed diseases</b>   |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| 6. Infection with <i>Marteilioides chungmuensis</i>  | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 7. Acute viral necrosis (in scallops)  | ***                                 | ***        | ***     | ***        | ***      | ***      | ***      | ***      | ***       | ***      | ***      | ***      | ***                |                                 |    |
| <b>CRUSTACEAN DISEASES</b>   |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| <b>OIE-listed diseases</b>   |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| 1. Infection with Taura syndrome virus   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 2. Infection with white spot syndrome virus  | (-2020)                             | (-2020)    | (-2020) | (-2020)    | (-2020)  | (-2020)  | (-2020)  | (-2020)  | (-2020)   | (-2020)  | (-2020)  | (-2020)  | (-2020)            |                                 | 8  |
| 3. Infection with yellow head virus genotype 1   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 4. Infection with infectious hypodermal and haematopoietic necrosis virus                    | (-2020)                             | (-2020)    | (-2020) | (-2020)    | (-2020)  | (-2020)  | (-2020)  | (-2020)  | (-2020)   | (-2020)  | (-2020)  | (-2020)  | (-2020)            |                                 | 9  |
| 5. Infection with infectious myonecrosis virus   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 6. Infection with <i>Macrobrachium rosenbergii</i> nodavirus (White Tail disease)            | (-2008)                             | (-2008)    | (-2008) | (-2008)    | (-2008)  | (-2008)  | (-2008)  | (-2008)  | (-2008)   | (-2008)  | (-2008)  | (-2008)  | (-2008)            |                                 | 10 |
| 7. Infection with <i>Hepatobacter penaei</i> (Necrotising hepatopancreatitis)                | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 8. Acute hepatopancreatic necrosis disease (AHPND)   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 9. Infection with <i>Aphanomyces astaci</i> (Crayfish plague)                                | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| <b>Non OIE-listed diseases</b>   |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| 10. Hepatopancreatic Microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP) | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| 11. Viral covert mortality disease (VCMD) of shrimps   | ***                                 | ***        | ***     | ***        | ***      | ***      | ***      | ***      | ***       | ***      | ***      | ***      | ***                |                                 |    |
| 12. <i>Spiroplasma eriocheiris</i> infection   | ***                                 | ***        | ***     | ***        | ***      | ***      | ***      | ***      | ***       | ***      | ***      | ***      | ***                |                                 |    |
| 13. Decapod iridescent virus 1 (DIV-1)   | 000                                 | 000        | 000     | 000        | 000      | 000      | 000      | 000      | 000       | 000      | 000      | 000      | 000                |                                 |    |
| <b>AMPHIBIAN DISEASES</b>  |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| <b>OIE-listed diseases</b>   |                                     |            |         |            |          |          |          |          |           |          |          |          |                    |                                 |    |
| 1. Infection with <i>Ranavirus</i> species   | (-2008)                             | (-2008)    | (-2008) | (-2008)    | (-2008)  | (-2008)  | (-2008)  | (-2008)  | (-2008)   | (-2008)  | (-2008)  | (-2008)  | (-2008)            |                                 | 11 |
| 2. Infection with <i>Batrachochytrium dendrobatidis</i>                                      | (-2020)                             | (-2020)    | (-2020) | (-2020)    | (-2020)  | (-2020)  | + (2021) | - (2021) | - (2021)  | - (2021) | - (2021) | + (2021) | - (2021)           | III                             | 12 |
| 3. Infection with <i>Batrachochytrium salamandrivorans</i>                                   | 000                                 | 000        | 000     | 000        | 000      | 000      | 001      | 002      | 003       | 004      | 005      | 006      | 006                |                                 |    |

**Prepared by:**

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Date: 15/03/22

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**ANY OTHER DISEASES OF IMPORTANCE****DISEASES PRESUMED EXOTIC TO THE REGION<sup>b</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

a/ 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>Epizootic haematopoietic necrosis</p> <ol style="list-style-type: none"> <li>1. Reported one case in December, based on passive surveillance in Victoria.</li> <li>2. Species affected – <i>Perca fluviatilis</i> (redfin perch)</li> <li>3. Clinical signs – N/A</li> <li>4. Pathogen – EHNV</li> <li>5. Mortality rate – At least 200 small fish</li> <li>6. Economic loss – Unknown</li> <li>7. Geographic extent – Part of a lake</li> <li>8. Containment measures – N/A</li> <li>9. Laboratory confirmation – PCR and sequencing at ACDP</li> <li>10. Publications – Nil</li> </ol> <p>Epizootic haematopoietic necrosis was not reported this period despite passive surveillance in New South Wales (last reported 2009) and South Australia (last reported 1992). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Western Australia. No information available this period in the Australian Capital Territory (last reported 2011).</p>   |
| 2  | <p>Infection with <i>Aphanomyces invadans</i> (EUS)</p> <ol style="list-style-type: none"> <li>1. Reported one case in December, based on passive surveillance in Western Australia.</li> <li>2. Species affected – Wild <i>Mugil cephalus</i> (sea mullet), based on passive surveillance</li> <li>3. Clinical signs – Skin ulcerations</li> <li>4. Pathogen – <i>Aphanomyces invadans</i></li> <li>5. Mortality rate – Up to 40% prevalence (80 of 200) reported in one sampling location and much lower percentage in another location.</li> <li>6. Economic loss – Unknown</li> <li>7. Geographic extent – Vasse-Wonnerup estuary</li> <li>8. Containment measures – N/A</li> <li>9. Laboratory confirmation – Histology, PCR and sequencing at DPIRD Diagnostics and Laboratory Services.</li> <li>10. Publications – N</li> </ol> <p>Infection with <i>Aphanomyces invadans</i> was not reported this period despite passive surveillance in New South Wales (last reported June 2021), Queensland (last reported April 2021), the Northern Territory (last reported 2017), Victoria (last reported 2012) and South Australia (last reported 2008). Passive surveillance and never reported in Tasmania. No information available this period in the Australian Capital Territory.</p>   |
| 3  | <p>Viral encephalopathy and retinopathy</p> <ol style="list-style-type: none"> <li>1. Reported by NT in October and December, based on passive surveillance. Reported by NSW with 1 case in October and two cases in December, based on active surveillance.</li> <li>2. Species affected – NT– Farmed Lates calcarifer (October case: 36-day-old and December: 16-day-old). NSW – October – case 1– Wild <i>Mugil cephalus</i>. December – case 1– Wild <i>Mugil cephalus</i>, <i>Retropinna semoni</i> and <i>Potamalosia Richmondia</i> and case 2 – Wild <i>Mugil Cephalus</i> and <i>Trachystoma Petardi</i>.</li> <li>3. Clinical signs – NT – Affected fish displayed neurological signs. NSW – N/A</li> <li>4. Pathogen – Betanodavirus</li> <li>5. Mortality rate – NT – 1% (October), 100% including culling (December). NSW – October– Not applicable, December – Not applicable.</li> <li>6. Economic loss – NT – Unknown in October and December. NSW – Unknown</li> <li>7. Geographic extent – NT – October- Nursery area of grow out- Several 5000L fibreglass tanks and an earthen pond (recirculating system), December- Larval rearing area consisting of two 6500L fibreglass tanks (recirculating system). NSW – Unknown</li> <li>8. Containment measures – NT – October- Quarantine of affected fingerling cohort until clinical signs were resolved, December- Culling and decontamination. NSW – N/A</li> <li>9. Laboratory confirmation – NT – October- PCR and histopathology, December- PCR. Tests performed at Berrimah Veterinary Laboratory of the Department of Industry Tourism and Trade, Northern Territory Government. NSW – PCR at Elizabeth Macarthur Agricultural Institute, Menangle</li> <li>10. Publications – Nil</li> </ol> <p>Viral encephalopathy and retinopathy was not reported this period despite passive surveillance in Western Australia (last reported 2013), South Australia (last reported 2010), Tasmania (last reported 2000) and Queensland (last reported September 2021). Never reported in Victoria, Tasmania and the Australian Capital Territory.</p> |
| 4  | <p>Enteric septicaemia of catfish (Infection with <i>Edwardsiella ictaluri</i>) was not reported this period despite passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available this period in the Australian Capital Territory. It was reported from clinically normal fish from a single river in Queensland (last reported 2014), the only occurrence of <i>E. ictaluri</i> in wild fish populations in Australia. Active surveillance throughout Northern Australia has found no evidence of <i>E. ictaluri</i> in any other wild fish populations. <i>E. ictaluri</i> has been detected previously in association with imported ornamental fish including: the Northern Territory in a closed aquarium (last reported 2011), and in PC2 containment facilities in Tasmania (last reported 2001) and Queensland (last reported 2008).</p>   |
| 5  | <p>Infection with <i>Bonamia exitiosa</i> was not reported this period despite targeted surveillance in Western Australia (last reported April February 2021), passive surveillance in South Australia (last reported 2019) and Victoria (last reported 2016). Passive surveillance and never reported in Queensland, New South Wales, Tasmania and the Northern Territory. No information available for the Australian Capital Territory (no marine water responsibility).</p>  |

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| 6  | <p>Infection with <i>Perkinsus olseni</i> was not reported this period despite passive surveillance in New South Wales (last reported 2005), Victoria (last reported 2015), South Australia (last reported 2019), Queensland (last reported 2014) and Western Australia (last reported 2021). Passive surveillance and never reported in the Northern Territory and Tasmania. No information available for the Australian Capital Territory (no marine water responsibility).</p>  |
| 7  | <p>Infection with abalone herpesvirus (abalone viral ganglioneuritis)</p> <ol style="list-style-type: none"> <li>1. Reported in Victoria in October, November and December 2021, based on passive surveillance.</li> <li>2. Species affected – Wild green lip abalone (<i>Haliotis laevigata</i>) and black lip abalone (<i>Haliotis rubra</i>).</li> <li>3. Clinical signs – Nil</li> <li>4. Pathogen – Haliotid herpesvirus 1 (HaHV-1)</li> <li>5. Mortality rate – 40% in a wild population in the affected areas</li> <li>6. Economic loss –Unknown</li> <li>7. Geographic extent – Approximately 20km of coastline including several abalone fishery reefs.</li> <li>8. Containment measures – Restriction on all forms of fishing</li> <li>9. Laboratory confirmation – Real-time and conventional PCR and sequencing by the Australian Centre for Disease Preparedness</li> <li>10. Publications – Nil.</li> </ol> <p>Infection with abalone herpesvirus (abalone viral ganglioneuritis) was not reported this period despite passive surveillance in New South Wales (last reported May 2021), Tasmania (last reported 2011). Passive surveillance and never reported in the Northern Territory, Queensland, South Australia, Western Australia. No information available for the Australian Capital Territory (no marine water responsibility).</p> |
| 8  | <p>Infection with white spot syndrome virus (white spot disease) was not reported this period despite active and passive surveillance in Queensland (last reported in April/May 2020). Never reported despite active and passive surveillance in New South Wales, South Australia, Western Australia, the Northern Territory and Victoria. Never reported in Tasmania despite passive surveillance. No information available for the Australian Capital Territory (no marine water responsibility).</p>  |
| 9  | <p>Infection with infectious hypodermal and haematopoietic necrosis virus was not reported this period in Northern Territory (Last reported in October 2020), Queensland despite passive surveillance (last reported in April 2020). Passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available for the Australian Capital Territory (no marine water responsibility) and Tasmania (susceptible species not present).</p>   |
| 10 | <p>Infection with <i>Macrobrachium rosenbergii</i> nodavirus (white tail disease) was not reported this period despite passive surveillance in Queensland (last reported 2008). Passive surveillance and never reported in the Australian Capital Territory, New South Wales, the Northern Territory, South Australia, Victoria and Western Australia. No information available this period from Tasmania (susceptible species not present).</p>   |
| 11 | <p>Infection with Ranavirus was not reported this period despite passive surveillance in the Northern Territory (last reported 2008, prior to official reporting for Ranavirus), Victoria (last reported 2016), Queensland (last reported 2018) and Western Australia (last reported 2013). Passive surveillance and never reported in New South Wales. Active surveillance and never reported in South Australia. No information available this period in the Australian Capital Territory.</p>   |
| 12 | <p>Infection with <i>Batrachochytrium dendrobatidis</i></p> <ol style="list-style-type: none"> <li>1. Reported in Tasmania in November, based on passive surveillance.</li> <li>2. Species affected – 1 <i>Litoria raniformis</i>.</li> <li>3. Clinical signs – N/A</li> <li>4. Pathogen – <i>Batrachochytrium dendrobatidis</i></li> <li>5. Mortality rate – 1 dead frog</li> <li>6. Economic loss –Not applicable</li> <li>7. Geographic extent – Not applicable</li> <li>8. Containment measures – Not applicable.</li> <li>9. Laboratory confirmation – PCR.</li> <li>10. Publications – Nil.</li> </ol> <p>Infection with <i>Batrachochytrium dendrobatidis</i> was not reported this period despite passive surveillance in South Australia (last reported in September 2020), Queensland (last reported 2018), Victoria (last reported 2016) and Western Australia (last reported 2008). Passive surveillance and never reported in the Northern Territory and the Australian Capital Territory.</p>  |

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

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