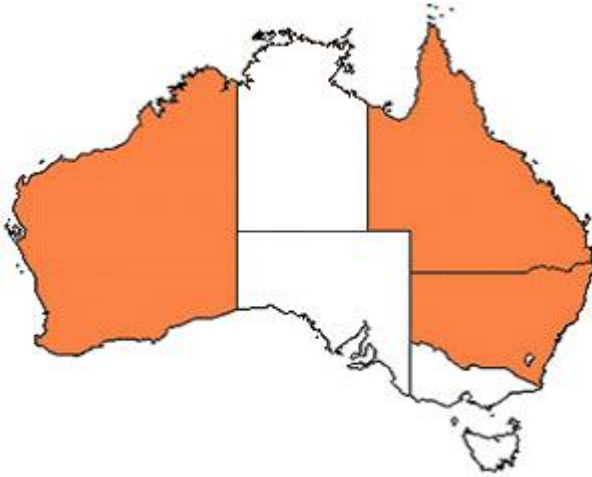


# Infection with *Marteilia sydneyi* (QX Disease)

Disease agent: *Marteilia sydneyi* is a protozoan parasite from the Order Paramyxida within the Phylum Cercozoa.



Presence in Australia: **Endemic**



Presence in Queensland: **Endemic**

Infection with *Marteilia sydneyi* is responsible for losses in the Sydney rock oyster industry on the east coast of Australia (QLD, NSW). A *M. sydneyi*-like protozoan was also found in diseased milky oysters (*Saccostrea cucullata*) in WA. A related species of *Marteilia* has also been detected in flat oysters (*Ostrea angasi*) in NSW. Any diagnosis of *Marteilia* spp. requires specific confirmation using molecular techniques.

## Signs of Disease:

Molluscs infected with these parasites may exhibit the following signs:

- gaping and weakened shell closure
- stunted growth and poor condition with watery appearance of flesh and shrunken gonad
- high cumulative mortalities (50-100%) associated with sporulation during late summer/autumn



### Infection with *Marteilia sydneyi*:

The Sydney rock oyster on the right with the pale, yellowish digestive gland and thin watery body has QX disease caused by *M. sydneyi*. The oyster on the left with the dark digestive gland is normal.

Photo: R. Adlard.

**Host Species affected may include:**

Sydney rock oysters    Milky oysters  
Polychaete worms

**At risk fisheries in QLD may include:**

Bait Worm Fishery  
Rock Oyster Industry

**Introduction Pathways to avoid:**

Do not translocate oysters or other potential hosts (e.g. polychaete worms) of unknown disease status from areas where QX infections are known to occur. Do not use imported seafood (including mollusc products) for bait or berley.

**Basic decontamination information:**

This disease agent can be inactivated by the following treatments: Dessication (drying out) and exposure to 200 mg/L chlorine for 4 hours. *Marteilia sydneyi* is also likely to be inactivated by heat, freshwater and other common disinfectants including ozone, hydrogen peroxide and benzalkonium chloride, however effective doses/durations for these latter processes or chemicals have not been published. High pressure cleaning to remove mud and biofouling from oysters or equipment (e.g. oyster trays) prior to moving them will reduce the risk of spread of potentially infected polychaete intermediate hosts.

**What to do if this disease is suspected:**

If you suspect this disease is present please contact the Department of Agriculture and Fisheries (13 25 23) or the National 24 hr Emergency Animal Disease Hotline (1800 675 888) immediately.

**How to collect and store samples for diagnosis:**

If you are taking samples to help authorities to test for this disease, whole molluscs should be provided alive (if possible) or chilled and on ice.

**Learn more**

For more information about QX Disease and other diseases of aquatic animals of significance to Australia, download the **Aquatic Disease Field Guide App** available for iOS, android and windows devices at these locations:

**IOS**<https://goo.gl/9UJNp9>**ANDROID**<https://goo.gl/T4Tn1X>**WINDOWS**<https://goo.gl/Y8Vibi>

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