

# Enteric Redmouth Disease (ERM)

Disease agent: *Yersinia ruckeri* (Hagerman strain), a gram negative bacterium in the family Enterobacteriaceae.



Presence in Australia: **Exotic**

Presence in Queensland: **Exotic**



The bacterium responsible for enteric red mouth disease is the Hagerman strain of *Yersinia ruckeri*, which is exotic to Australia. A less virulent form of *Y. ruckeri* is endemic in Australia. It causes a disease in Atlantic salmon known as yersiniosis.

## Signs of Disease:

Fish infected with this bacteria may exhibit the following signs:



- lethargic with darkened body
- swollen abdomen with fluid accumulation
- haemorrhages at the fin bases and the vent, reddening of the mouth and tongue
- exophthalmos (popeye)
- blood in the eye
- enlarged spleen, internal haemorrhages
- inflamed lower intestine containing yellow fluid



### Enteric Redmouth Disease (ERM):

Top. Enteric red mouth disease in a rainbow trout from Europe. Note skin and eye haemorrhages, and swollen abdomen.

Bottom. Rainbow trout with ERM, note the reddened mouth and tongue

Photos: HJ Schlotfeldt

**Host Species affected may include:**

Eels (all)

**Imported seafood fishes including:**

Channel catfish	European eel
European carp	Turbot
Trout (all)	Salmon (all)

**Ornamental fishes including:**

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

Queensland Eel Fishery

**Introduction Pathways to avoid:**

Do not use imported seafood or ornamental fish for bait or berley, and do not release ornamental fish into waterways.

**Basic decontamination information:**

This disease agent can be inactivated by the following treatments: Dessication (drying out), temperatures above 49°C for over 1 hour or 60°C for 1 minute, 250 mg/L chlorine for 30 minutes, 25 mg/L iodine for 15 seconds, 1% Virkon S for 10 minutes, UV light >5 mJ/cm<sup>2</sup> or 0.7mg/L/min ozone.

**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 fish should be provided alive (if possible) or chilled and on ice (but not frozen).

**Learn more**

For more information about ERM 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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