

Epizootic Ulcerative Syndrome (EUS or Red Spot Disease)

Disease agent: *Aphanomyces invadans*, a fungus from the family Leptolegniaceae in the class Oomycetes.



Presence in Australia: **Endemic**



Presence in Queensland: **Endemic**

EUS is endemic in many freshwater catchments and estuaries in Australia and has been officially reported from New South Wales, the Northern Territory, Queensland, Victoria, South Australia and Western Australia.

Signs of Disease:

Fish infected with this fungus may exhibit the following signs:



- red spots or burn-like marks with pale edges
- deep ulcerative lesions along the flanks
- erratic swimming and increased respiration

Epizootic Ulcerative Syndrome (EUS):

Top. EUS in sand whiting; note progression of red lesion (top) to deep ulcer (bottom) and classic red sores on the body.

Bottom. EUS in a juvenile silver perch; note classic red ulcer on the body

Photos: New South Wales Department of Primary Industries

Host Species affected may include:

Australian bass	Barcoo grunter
Barramundi	Bream
Bony bream	Catfish
Eels (all)	Estuary cods (all)
Flathead	Golden perch
Jungle perch	Macquarie perch
Murray cod	Rainbow fish
Sleepy cod	Silver perch
Mangrove jack	Sea mullet
Tilapia	Whiting

At risk fisheries in QLD may include:

Queensland Eel Fishery
Coral Reef Finfish Fishery
Gulf of Carpentaria Line Fishery
East Coast Inshore Finfish Fishery
Gulf of Carpentaria Inshore Finfish Fishery

Introduction Pathways to avoid:

This disease is endemic in wild fishes in QLD, so movement controls in the wild fishery are unlikely, however interstate movements of live EUS affected fishes may not be permitted.

Basic decontamination information:

This disease agent can be inactivated by the following treatments: Salinities greater than 4 ppt, 100 mg/L chlorine for 5 minutes, 100 mg/L iodine for 5 minutes, or UV light >210 mJ/cm².

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 EUS 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/Y8Vibj>

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