

# Aquaculture: Aquatic Animal Health Research

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## Aquatic animal health



Poor water quality and overcrowding can result in bacterial infections in intensive culture

- Pathogens and parasites are responsible for severe disease outbreaks in aquaculture and threaten sustainability and profitability of the industry through morbidity, mortality or reduced marketability
- Cultured animals may develop disease problems and high parasite burdens because stocking conditions can enhance transmission

## Parasites

Common parasites of wild and farmed fish include:

- sea lice (copepods)
- tongue biters or 'doctors' (isopods)
- ectoparasitic flukes (monogeneans)
- endoparasitic flukes (digeneans)
- round worms (nematodes)
- tapeworms (cestodes)
- spiny headed worms (acanthocephalans)
- leeches



Gill fluke, as seen on this barramundi, feed on blood and can cause anemia

## Research



Skinner fluke graze on epidermis, leading to secondary bacterial infections in kingfish

**The aim of our research programme is to quantify:**

- Health risks for new species aquaculture
- Wild fish aggregations at sea-cage farms
- Parasite interactions between wild & farmed fish
- Mitigation strategies
- New parasite species
- Parasite transmission, life cycles, life histories
- Phylogenetics of some parasite groups