

CRUSTACEANS DISEASES





Ergasilus

- It is a parasitic disease caused by species of family Ergasilidae and affects gills of freshwater fish.
- It is commonly known as the 'gill maggot' due to the presence of long white egg sacs that trail behind the body.



- *Ergasilus sp.*
- Mainly freshwater fish, but affects brackish and marine fish too.
- Outbreaks are more in warm water



Ergasilus

Source of infection:

- Infested fish
- Water

Mode of transmission: Direct contact



Ergasilus

- **Clinical Signs:**
- Damage is due to attachment and feeding.
- Parasitic females feed on whole blood and mucous
- Marbling appearance of gills
- Thrombosis in small blood vessels
- Respiratory manifestations



Ergasilus

- *Ergasilus sieboldi* attaches to the outer surfaces of the gill filaments.
- Its specialised antennae are inserted deep into the gill tissue.



- This allows the mouth (located on the underside of the body) to come into close contact with the gill surface.
- *E. sieboldi* feeds on epithelial cells, blood and mucus. These are scraped from the gill surface by serrated blades that surround the mouth.



Ergasilus

- The way in which *Ergasilus sieboldi* attaches and feeds cause considerable pathology to the gills.



- The insertion of the antennae deep into the gill tissue causes deformation of the gill filaments and puncturing of blood vessels.



- The combination of attachment and feeding exerts pressure on the gill filaments. This leads to compression and erosion of the surface epithelium, cell necrosis, constriction of blood vessels and hyperplasia (cell multiplication).