

Parasites of mullet (*Argyrosomus japonicus*)

Parasite species with potential to cause pathology in fish farms



Name: *Benedenia sciaenae*, a monogenean parasite commonly called 'skin fluke'
Microhabitat: Live on the surface of the fish and feed on skin cells
Appearance: Transparent when alive, but turn white when they die
Pathology: Heavy infections cause irritability, anorexia and mortality in aquaculture
Curiosity: Their circular attachment organ acts like a suction cap so they stick on the fish



Name: *Caligus* spp., copepod crustaceans commonly called 'sea-lice' or 'skin crawlers'
Microhabitat: Live on the surface of the fish including the skin and gills
Appearance: Often with elongate paired eggs strings, scuttling around on the fish skin
Pathology: May cause irritation and anaemia in heavy infections
Curiosity: These guys can hang on, despite the speed and distance their host travels!



Name: *Sciaenacotyle sciaenicola*, flatworm parasites commonly called 'gill fluke'
Microhabitat: Live on the gills and feed on blood
Appearance: Brown, long thin worms attached to gill lamellae
Pathology: Infections may cause emaciation, lethargy and lethal anaemia



Name: *Diplectanum* spp., flatworm parasites or 'flukes' called Diplectanids
Microhabitat: Live on the gills and attach
Appearance: Seen by eye as small white spots on the gills
Pathology: Epithelial hyperplasia at point of attachment



Name: *Calceostoma glandulosum*, flatworm parasites or 'flukes'
Microhabitat: Live on the gills
Appearance: Long, thick white worms on the gills
Pathology: Some evidence of anemia associated with infections in aquaculture



Name: *Lernanthropus gisleri*, copepod crustaceans
Microhabitat: Live on the gills
Appearance: Attach using hooks and hand-like appendages ~15mm
Pathology: Lacerated tissue, erosion, necrosis of gill lamellae
Curiosity: These parasites have only been recorded from wild mullet to date



Name: Unidentified isopod, commonly called a 'tongue biter' or 'doctor'
Microhabitat: Live in the mouth, clutching on to the tongue with their claws
Appearance: Large, white flattened parasites with dark black eye spots
Pathology: Some species may eat the entire tongue of their fish host!
Curiosity: They tend to dine on the food that comes through their hosts' mouth!

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