

Blackspot: *Posthodiplostomum cuticola*

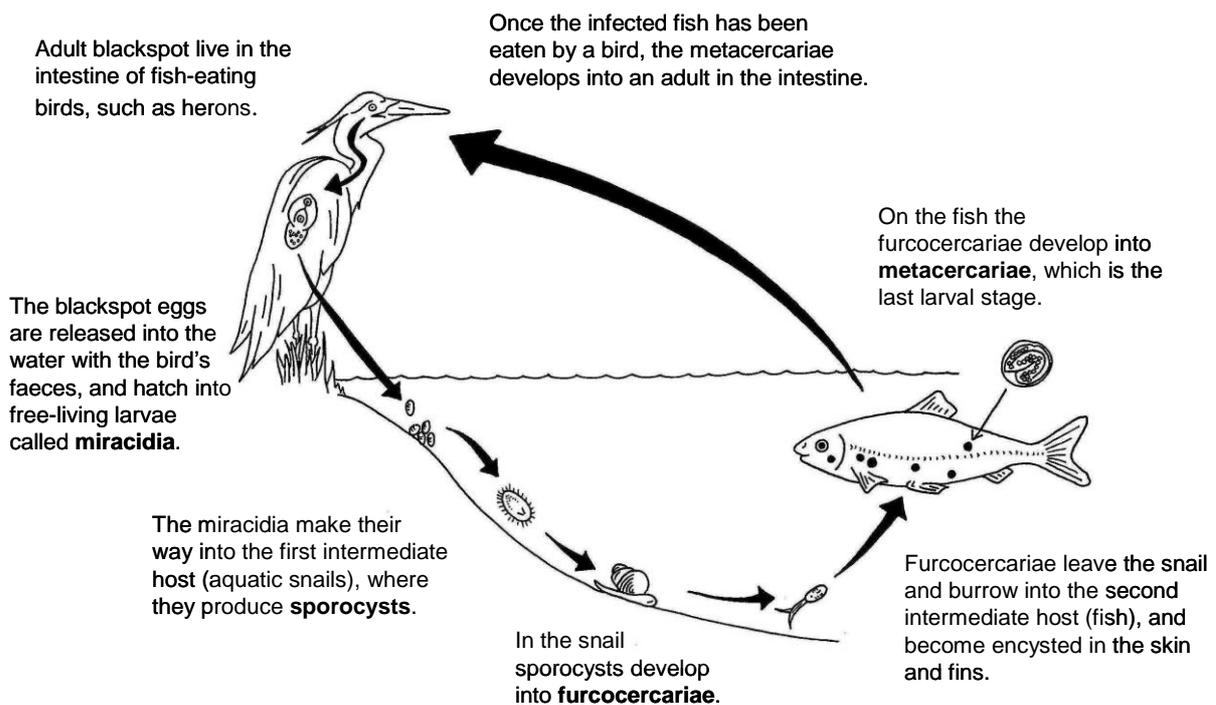
What is blackspot?

Blackspot is the name given to the cyst formed around the larval stage of the parasite *Posthodiplostomum cuticola*. This is a flatworm which has more than one host and a complicated life cycle. It is found in the skin, fins and gills of most freshwater fish. The black colour comes from a pigment, produced by the fish, in the tissue around the cyst. This pigmented cyst, which gives the parasite its common name, is clearly visible to the naked eye.



A blackspot parasite removed from its cyst

Life cycle of *Posthodiplostomum cuticola*



What does blackspot do?

The parasite uses the fish as an intermediate host and completes its life cycle when an infected fish is eaten by a bird. The parasite does not feed on the tissue of the fish, but burrows into the skin.

The black spot that the fish produces probably makes them more likely to be seen by birds. The burrowing of the parasite and forming of the cyst causes little damage to the fish. Blackspot problems are rare, however it can be more damaging to smaller fish or those infected with a large number of parasites.

Is blackspot damaging?

In natural fisheries there is a balance between fish and the environment they live in. Parasites, like blackspot, are a part of that natural balance. Although heavy infections are damaging in individual fish, low levels of the parasite could indicate that a fishery is in good condition.

Poor habitat may not only be bad for the fish, but for the aquatic snails that act as an intermediate host for the parasite. A low level of blackspot could be seen as a positive sign for a fishery. This is because it shows that there is substantial habitat for aquatic snails to survive, and they are an important part of the food chain in fisheries.

Blackspot may be one of the easiest parasites to spot on fish, but unless it is infecting the fish in large numbers, it shouldn't be of concern.



A fish with a heavy blackspot infection

This fact sheet has been produced by:
**National Fisheries Laboratory, Monitoring: Laboratories, Environment Agency,
Bromholme Lane, Brampton, Huntingdon, PE28 4NE.**
Tel: 02084 745244; Email: fish.health@environment-agency.gov.uk