

Sarcocystis - A Potential Emerging Disease in Rainbow Trout

You may have heard about a possible new parasitic disease diagnosed in freshwater farmed rainbow trout (*Oncorhynchus mykiss*) in Sweden. At present the exact cause and significance of this is not fully understood.

As a precautionary measure and as part of our responsibility to ensure the maintenance of the high health status of aquatic animals within the UK, the UK Government and the Devolved Administrations of Scotland, Wales and Northern Ireland are issuing the following information to advise you and raise awareness of this situation.

Points to note

- A possible new parasitic disease has been discovered in Sweden within two freshwater rainbow trout farms
- It is possible that infestation could occur in wild salmonids particularly in fish around affected fish farms
- The exact cause of the condition is unknown although histological studies indicate that the parasite is a protozoan, possibly of the Sarcocystidae family although this has yet to be confirmed
- Mortality has been reported as variable, but can be significant; up to 15% has been experienced in juvenile fish at approximately 1 month post hatching and of a length up to 2.5 cm at one of the sites associated with the condition
- Clinical signs which may be indicative of the disease include increased mortality, a black discolouration to the posterior section of the body and swelling over the dorsal surface of the head area (the cranium)
- There are no known direct trade links between the UK and Sweden in terms of live rainbow trout. The risk of infection via this route is believed therefore to be negligible.
- Although the condition has only been reported from Sweden, the source and distribution of the parasite and any associated disease is presently unknown
- To date there is no indication that this parasite is present within rainbow trout stocks in the UK
- More work is needed before any definitive conclusions can be made about the identity of the causative agent of the mortality, its source and risk to UK trout stocks

- Currently, and until more information about the condition is obtained, the impact of the disease (e.g. level of mortality) is believed to be a production related condition
- The EU Commission and experts from member states with an interest in this issue (inc UK), recently held a meeting where it was concluded that the current level of risk did not yet warrant the introduction of official controls/movement restrictions at an EU level.
- The EU-Reference Laboratory for fish diseases will continue to work with Swedish authorities in collecting further information on the suspected pathogen and epidemiology of the disease. A recent presentation by the Swedish authorities can be found at:

http://ec.europa.eu/food/committees/regulatory/scfcah/animal_health/presentations/02072013_sarcocystis_parasite_swedish.pdf

Are there any human health risks ?

- There is to date no evidence from the Swedish authorities of any risk to human health.

What should I do?

There is a suggestion that clinical disease and mortality associated with the condition can be reduced through good husbandry practices. Maintaining a high level of biosecurity and implementing good stock management practices at your farm site will be beneficial in protecting the health and welfare of your fish. Further information on good husbandry practices and biosecurity can be found at:

<https://www.gov.uk/protecting-freshwater-fish-and-other-aquaculture-species>

<http://www.scotland.gov.uk/Resource/0038/00385854.pdf>

Always seek appropriate health certification and assurances from any supplier of stock which you intend to use in relation to your farming operations.

If you suspect disease or experience mortality problems on your site then please contact the relevant Fish Health Inspectorate (details below) who can provide a diagnostic service and offer advice on biosecurity and best practice to minimise the potential spread of disease.

Your veterinarian or health manager should also be consulted and can assist with disease diagnosis and offer advice on biosecurity practices.

We will endeavour to keep you informed of any significant developments, if and when they become apparent.

Should you have any concerns, please do not hesitate to contact us.



Image showing clinically affected fish. Black discoloration of the posterior section of the body and swelling over the dorsal surface of the head area (the cranium) is visible.

Image courtesy of Eva Jansson from the National Veterinary Institute of Sweden

For queries in England and Wales

The Fish Health Inspectorate
Centre for Environment, Fisheries & Aquaculture Science
The Nothe
Barrack Road
Weymouth
Dorset, DT4 8UB

Telephone: 01305 206700
Email: fhi@cefas.co.uk

For queries in Scotland

The Fish Health Inspectorate
Marine Scotland
Marine Laboratory
375 Victoria Road
PO Box 101
Aberdeen, AB11 9DB

Tel: 01224 876 544
Email: ms.fishhealth@scotland.gsi.gov.uk

For queries in Northern Ireland

The Fish Health Inspectorate
Department of Agriculture and Rural Development
Dundonald House
Upper Newtownards Road
Ballymiscaw
Belfast, BT4 3SB

Tel: 02890 524156 - Inspectorate
Email: fish.health@dardni.gov.uk