

SVC Information

Affects all varieties of common carp, *Cyprinus carpio* and other coarse fish species including goldfish, orfe, pike, roach, tench and wels catfish

Outbreaks occur during periods of rising water temperatures, above 7°C up to 17°C and also when temperatures are falling in the autumn

Can cause serious economic losses in coarse fish farms and fisheries

No treatment

Notifiable disease in the UK

Large scale mortalities up to 100%

Known to be widespread in continental Europe

Legal Obligation and Who to Notify

The Aquatic Animal Health (England and Wales) Regulations 2009, which came into force on 27 March 2009, make it a legal obligation to report suspicion that inland waters have become infected with SVC Disease to the Fish Health Inspectorate (FHI) at the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

Contact address for further information:

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Spring Viraemia of Carp (SVC)



Introduction

Spring Viraemia of Carp (SVC) is a viral disease of carp and many other coarse fish species. The disease can cause up to 100% mortality and affects all ages of fish. It has resulted in significant economic losses to fisheries across England and Wales.

Aetiological agent: A viral disease caused by *Rhabdovirus carpio* of the family Rhabdoviridae.

Geographical distribution

The disease is widespread in continental Europe and western Eurasia. SVC was first found in the UK in 1976. Outbreaks within the UK are infrequent and are often associated with illegal movements of fish. The first cases seen in the USA occurred in 2002.

Susceptible species

SVC affects common carp (including all variants, such as mirror, leather and koi carp), grass carp, bighead carp, silver carp, crucian carp, goldfish, orfe, pike, roach, tench and wels catfish. Fish of all ages are susceptible.



SVC infected carp

Epizootiology & clinical signs



Carp and tench infected with SVC

Outbreaks of SVC usually occur as water temperatures rise above 7°C, in the spring, and maximum mortalities occur between 10°C and 15°C. Mortalities usually stop at water temperatures over 17°C but may sometimes occur up to 23°C as the virus can survive in fish at this temperature. However, SVC is not restricted to the spring and a significant number of disease events have been reported in the autumn as water temperatures fall.

Clinical signs vary but can include darkening of the skin, swollen eyes, abdominal swelling (dropsy), pale gills, trailing faecal casts and protrusion of the anus. Infected fish may be lethargic, show loss of balance and display areas of bleeding on the gills, skin and internal organs. It is important to note that one or more of these signs may be absent at any stage of the outbreak, especially during the earliest and very late stages.

SVC is usually spread through close contact between infected fish. There is no firm evidence to suggest that the disease can be transmitted vertically through the egg. Some vectors such as the fish louse *Argulus* spp. and the fish leech *Piscicola geometra* can also transfer the disease from diseased to healthy fish.

Treatment and control

There is no known treatment for SVC.

In the event of a suspected or confirmed outbreak in the UK, fish movement restrictions will be applied to the site. All sites receiving fish from, or supplying fish to a confirmed positive site would be inspected and sampled to establish the source of infection.

Movement controls on infected sites will be lifted following the clearance and disinfection of the site under the supervision of the Fish Health Inspectorate.

As a notifiable disease in the UK, there is a legal obligation to report any suspicion of a clinical outbreak of SVC to the Fish Health Inspectorate (FHI).

Fishery owners and managers must be sure that any fish introduced are free of disease. Do not buy fish of unknown provenance; one 'bargain' fish may cost you the stock and reputation of your fishery. Fishery managers should ensure that any animals in their care are kept according to good husbandry practices.

Please note: The Animal Welfare Act 2006 makes owners and keepers responsible for ensuring that the welfare needs of animals in their care, including fish, are met. This includes protecting them from disease.



Ornamental species are also susceptible