# Fish health and disease update

## April 2016

In February 2016 Natural Resources Wales joined the Environment Agency for their inaugural Fish Health Network meeting. This was a great opportunity for the two organisations to catch up on fish health issues across the border; what's hot news in both Wales and England. This network will help provide technical support and consistency across the two organisations with crossborder issues. The NRW contact on this group is Sophie Gott (Technical Specialist Fisheries - South Operations).

Current research in key fish diseases and parasites, a brief overview of which follows:

***Gyrodactylus sprostonae*** - a gill parasite and an emerging issue in carp fisheries. It has been linked with carp mortalities where low numbers of big carp from well-run fisheries have been affected, suffering from massive infections in their gills. The fact that it is just one or two big fish that are dying means that it is easy to miss and we would encourage fishery owners to report dead fish, especially species specific mortalities, and to keep good records (including photos) of numbers, dates, species, size etc of any losses.

**Koi Herpes Virus (KHV)** – a notifiable disease which if identified will result in the fishery being subject to fish movement restrictions. Recent work suggests that the infection is actually widespread, but the disease only occurs when fish are stressed, so good fishery management is key to controlling outbreaks. We have only had one confirmed case of KHV in Wales, from a stillwater fishery in Gwent. As always, please ensure all kit and tackle is thoroughly disinfected or dried when moving between waters.

**Red Vent Syndrome** – a condition which affects salmonids returning to freshwater to spawn. The cause and indeed the impacts of this condition are not yet fully understood. It's thought that its presence may negatively impact on the commercial value of the fish, but as the 'infection' heals when the fish is in freshwater, it doesn't appear to impact spawning success. The condition was thought to be linked to an infestastion of a marine nematode, but this has since been discounted and current research is investigating links to climate change / changes in the marine environment and potentially another pathogen.

**Eel Herpes Virus (AngHV-1)** – a disease which was identified after four separate mortalities of significant numbers of mature eels in enclosed still waters. Recent work links the four recorded outbreaks to the physiological stress on the eels of silvering up and preparing to migrate, only to be blocked from doing so by impassable barriers. As with KHV it seems that the presence of the virus will not necessarily kill the eels, but that stress causes the disease to develop, which may then kill the fish.

E-mail fisheries.wales@naturalresourceswales.gov.uk
www.naturalresourceswales.gov.uk

Incident Hotline
0800 807060

**Puffy Skin Disease (PSD)** – a relatively newly discovered disease, it's only observed so far in rainbow trout (diploid and triploid), in both aquaculture and fisheries. This disease causes osmoregulatory failure resulting in the fish skin and scales swelling and appearing to be puffy in nature. It can affect the performance of a fishery as fish go off their food and lose condition; in addition it is unattractive in appearance, which may adversely affect the fishery. Recovery is possible, but it is a persistent pathogen and will flare up repeatedly. It is linked to stress, so good fishery management is important. It is also infectious so good biosecurity measures must be adhered to.

**Spring Carp Mortality Syndrome (SCMS)** - a big news story about 15 years ago. Numerous investigations were undertaken to identify what was causing these mortalities but no firm breakthrough was reported other than that it was probably an as yet unidentified virus. In recent years, carp mortalities have been reported with very similar symptoms and notably a distinct pathology of the gills. In these recent cases, a viral agent was identified – Carp Edema Virus (CEV). This virus is active at lower temperatures than usual, 6-18°C, so may be causing mortalities earlier in the year. The affected carp tend to be lethargic, lying almost dead like in appearance in the margins. Research is now underway on archived tissue samples to see if CEV can be identified in the SCMS cases.

**Fungal infections (*saprolegnia*)** - in recent years we have received numerous reports of wild salmon and sea trout with fungal infections. We have also had reports of fish with the skin condition Ulcerative Dermal Necrosis (UDN), although UDN has a very specific pathology and confirmed cases of this disease remain scarce. These are both natural conditions that usually affect low numbers of salmon and sea trout every year as they return to our rivers. Numbers of affected fish can increase during certain conditions, such as periods of low flows, last spring we saw small numbers of affected fish in rivers across Wales, notably the Usk, Loughor, Dee and Nevern. That is not to say that fungal infections haven't caused serious problems. The Environment Agency recently brought in emergency bylaws to stop all commercial salmon fishing on the Dart and implement 100% catch and release on rods in reaction to a serious fungal outbreak. We are currently involved with a project which aims to improve understanding of *saprolegnia* infections in wild and farmed fish populations. This is timely in view of the problems seen over the last few years on some of our rivers. The project will start this spring and will be run by the EA (with input from NRW) as 3 year PhD in collaboration with Cardiff and Aberdeen Universities.

**If you see any dead or unhealthy fish in the wild please call**

**0800 80 70 60**

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**Good biosecurity measures are key to keeping our rivers and fisheries healthy. Invasive plants and animals harm the environment, reduce the quality of fishing and spread disease. Please help to stop them by following the Check, Clean, Dry code.**

**www.nonnativespecies.org/checkcleandry**


**Further information**

If you have any concerns or require more information about fish health, diseases, parasites or disinfection of kit, please contact:

**Natural Resources Wales**

Email: fisheries.wales@naturalresourceswales.gov.uk

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