

## **Catcleugh Angling Association Bio Security Policy**

The purpose of this policy is to draw the attention of members to the risks posed by invasive non-native species and to suggest measures that can be taken to minimise those risks.

The Salmon Fluke (*Gyrodactylus salaris*) which has wiped out salmon populations in Scandinavia, Russia and the Pyrenees and which is possibly the best known aquatic invasive species also infests brown trout and other salmonids. Happily it has not yet reached the UK but members visiting the above locations should be aware of it.

The Killer Shrimp (*Dikerogammarus villosus*) grows to a length of 30mm has been described as the biggest danger to native fish species in the UK by the Environment Agency. It preys on native shrimps, invertebrates and fish fry, prefers slow moving or still water and is now present at Grafham Water (and probably elsewhere). It has radically altered ecosystems in a number of rivers since spreading from Eastern Europe. It can survive for up to 6 days out of water in damp conditions. The newly hatched young are tiny, only 1.8mm long. The Demon Shrimp (*Dikerogammarus haemobaphes*) is a related species has been found at sites in the UK more recently.

There are a number of potentially damaging non-native molluscs, Zebra Mussels (*Dreissana polymorpha*), Quagga Mussels (*Dreissena bugensis*) and Asian Clams (*Corbicula fluminea*). These are filter feeders and when established in still waters they filter out plankton leading to greater water clarity, this promotes plant growth which in turn produces more detritus depriving fish of oxygen. These conditions are ideal for species such as the Killer Shrimp and can also cause algal blooms which are lethal to fish stocks. Colonies of these molluscs are established in the UK and Ireland. Whilst the adults are about 25mm across the larvae are microscopic and easy to transplant.

Potentially harmful aquatic plants include Canadian Pondweed (*Elodea Canadensis*) and Water Primrose (*Ludwigia grandiflora*). These grow so profusely that they can clog watercourses depriving invertebrates and fish of oxygen. One small cutting can lead to colonisation.

Various terrestrial plants such as Himalayan Balsam (*Impatiens glandulifera*), Giant Hogweed (*Heracleum mantegazzianum*) and Japanese Knotweed (*Fallopia japonica*) are potentially harmful to fisheries and Giant Hogweed can cause injury to anglers. These species are also easily spread.

Rock Snot (*Didymosphenia geminata*) is an alga indigenous to Alpine regions of Europe and North America. If it spreads to more temperate regions it smothers river beds in green slime depriving all other species of oxygen. It is currently found in the USA, Canada and New Zealand.

Simple measures can be taken to reduce the risk of the which have been recommended by DEFRA and others can be summarised as follows:

**Check** - all clothing and equipment for mud plant and animal matter after fishing paying particular attention to waders and landing nets which, clearly, are routinely immersed in water.

**Clean** - equipment if possible before leaving the fishery and leave the washings on site. The use of a disinfectant such as Virkon is an option but it is believed that this is ineffective against invasive shrimp species. Washing in hot tap water (minimum 45 degrees centigrade) will apparently kill the shrimps. If equipment has to be removed from site and cleaned elsewhere DEFRA advise that the washing should not be poured in to any watercourse or down the sink or drain!

**Dry**- The most effective means of killing any organisms which have not been removed is to thoroughly dry nets, waders and other equipment for at least 48 hours (96 hours for Rock Snot) prior to using them for fishing at another venue.