

Freshwater habitats under constant bombardment

Working on the National Invasive Species Database means I receive information on sightings of all sorts of creatures that aren't native to Ireland but are here and causing a problem. They can be a threat to our native wildlife, economy and human health. Worryingly, in the year past since the last TAFI Newsletter the majority of records and new species found in Ireland are in freshwater habitats. Worse still, there is a continuous threat of more invasive species arriving to our waters.

Let's be clear and not mistaken for scaremongering

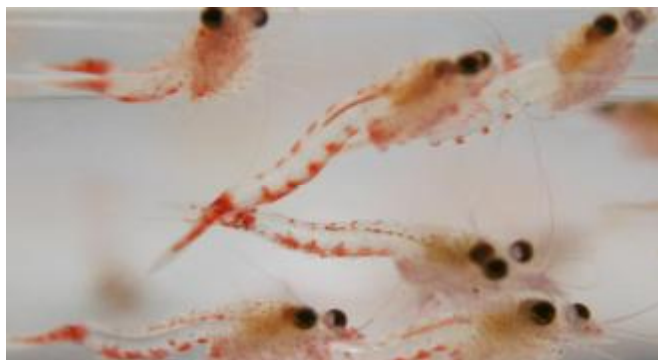
The majority of alien species introduced into Ireland don't cause a problem. Many do perfectly fine in our homes, gardens, parks and ponds. However, there are some species that cause local or widespread havoc when they establish in the 'wild'.

The more infamous established aquatic species include Zebra Mussel (*Dreissena polymorpha*) and African Curly Waterweed (*Lagarosiphon major*). For the latter, a major body of research and work on its impact and control in Lough Corrib has shown some interesting and damning results. In short, there are a reduced number of macrophytes, increased macro-invertebrate abundance BUT fewer types of species and significantly, it supports increased establishment of the Zebra Mussel. Overall, conditions seem to favour coarse fish but not the highly valued salmonids. The questions remain; What do we value more? If the salmonids, What are we going to do about it? And How can we prevent this from happening elsewhere?

What's new to Ireland?

Recent aquatic arrivals include the **Water Primrose** (*Ludwigia grandiflora*) which luckily was found in isolated ponds as it also kept bad company with the invasive Curly Waterweed, New Zealand Pigmyweed (*Crassula helmsii*) and Parrots Feather (*Myriophyllum aquaticum*). Eradication plans are in place. Some Sliders were recorded from the River Dodder including the **Yellow-bellied Slider** (*Trachemys scripta scripta*) and the **Common Snapper** (*Chelydra serpentina*). Under current climatic conditions these Sliders are unlikely to successfully breed and will have a minimal localised effect, however with predicted global warming that could change. The **Chinese Mitten Crab** (*Eriocheir sinensis*) previously only once recorded (in 2006) has made a reappearance in Waterford Estuary. This time 16 individuals were found. The likely impacts of the crab, as seen in other European countries, are destabilisation and collapse of soft sediment river banks with increased siltation of the river beds. Not so good for trout and salmon spawning grounds!

Last but certainly not least, we are now home to the **Bloody Red Shrimp** (*Hemimysis anomala*). Photo below courtesy of Marcin Penk



This small shrimp-like crustacean (up to 1.5cm) native to the low-salinity margins of the Black Sea, the Azov Sea and the eastern Caspian Sea was most likely was brought into Ireland via boats. It has been recorded from Lough Key, Lough Rea and Lough Derg. They can occur in swarms of about 4-6000 per cubic meter and can have 2-3 broods per year. As they are a recent invader their impacts are as yet unknown but with such large populations' one can expect

some sort of impact. They are known to be fed on by Perch but they also compete with young fish for food. Research is being undertaken but it is likely to be a waiting game to see what happens. The eradication of these small species from such large water bodies is unlikely and so preventing their spread is vital. Please watch out and report any incidences of lake or river water appearing red in patches.

Potential Invaders

With non-native species that have just arrived or might arrive to our island, there are many unknowns when trying to predict their impact. Detailed risk assessments help identify the species that have the potential to become invasive and we can become aware of them to prevent their introduction or failing that; remove them as rapidly as possible if/when they arrive. In general though, the precautionary principle should apply and we should not introduce anything in our waters that doesn't belong in them. Prevention is better than cure! A list of species that have been identified as having the potential to be invasive if they are introduced is available from the National Invasive Species Database website. Some of the aquatic species listed are: **Zander**, **Gyrodactylus salaricus** (a fish parasite), **Topmouth Gudgeon** (See photo below, courtesy of GBNNSS), **Fishhook Waterflea** (*Cercopagis pengoi*), a suite of **non-native crayfish** and the aforementioned **Water Primrose** (*Ludwigia grandiflora*) or *Ludwigia peploides*.



Recording for informing action on invasive species

In the last article, I mentioned that frustrated anglers wanted 'to do something' about invasive species. The something put on offer was for anglers to record where they saw the species and to submit that information to the Data Centre so it could inform action. Unfortunately, no records were received from the angling community. While others have been submitting information, I believe that a lot of it is being missed as the people who intimately know the river stretches are not actively recording. Please help combat the serious threat of invasive species to our freshwater habitats and the native wildlife they support. Become aware of the invasives in Ireland and potential invaders, help prevent their introduction and spread and send record information on their whereabouts to the Data Centre.

What is a Record?

It is information that is noted down when a species has been observed. It answers the following questions:

- WHO recorded the species? – Recorder name
- WHAT was recorded? – Species name
- WHERE was the species recorded? – Grid reference and location description
- WHEN was the species recorded? – Date
- WHO determined the species? – Determiner name

Where to submit records

To submit records, to access distribution maps or for more information, visit the National Invasive Species Database website: <http://invasivespecies.biodiversityireland.ie> or contact Colette O'Flynn by e-mail: coflynn@biodiversityireland.ie or phone: 051 306240. Address: National Biodiversity Data Centre, Carriganore, Waterford. Also see www.invasivespeciesireland.com

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