



## SCA Invasive Non-Native Species and Biosecurity

### Invasive non-native species

There are hundreds of non-native species of plants and animals in Scotland and the UK, many of them cause us little or no problem, but there are others that have potentially far reaching consequences for our economy and native wildlife. A small but significant proportion of these non-native species are invasive.

#### New Zealand Pygmyweed (*Crasula helmsii*)

This freshwater species grows in muddy margins or semi-submerged/submerged in deep water and does not die back in winter. The shoots are stiff and have narrow parallel-sided leaves in pairs (each leaf 4-24mm). In summer there are small white flowers with 4 petals above water. This yellow and green stemmed plant forms a mat which chokes out light and oxygen to the water, killing all other species.



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Pygmyweed also creates such a dense carpet that it is impossible to paddle through it. Almost impossible to eradicate, it grows from the smallest piece of plant. Originally sold in garden centres as an oxygenating plant for aquaria, it is now a very serious threat to our waterways and lochs.

#### Wireweed (*Sargassum muticum*)

This marine species is a large brown seaweed with a frond over a metre long and has flattened blades and gas bladders. It is olive brown in colour and its branches alternate along the frond. It grows in shallow waters and can also be found in estuaries.



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## Parasites

*Gyrodactylus salaris* is a parasite of significant concern as it lives on salmon. At present it is found in some European countries (Norway in particular), but should it ever find its way into the UK the economic consequences could be catastrophic. The fishing, whisky, paper and hydro industries would all be greatly affected, and paddling restricted across whole catchments for indefinite periods.



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*Gyrodactylus salaris* is a tiny parasite which lives on the body of fresh water fish including salmon and rainbow trout. It is 0.5mm long and cannot be seen with the naked eye. It attaches to the fish, dissolves the salmon skin with its digestive enzymes and causes large wounds which cause secondary infections. The parasite produces live young which are already carrying (in development) a further generation of *Gyrodactylus salaris* within them.

**Risk:** anyone returning from overseas where *Gyrodactylus salaris* is present could import the parasite on damp and untreated equipment.

Whilst the current concern is connected with *Gyrodactylus salaris*, there are other diseases that could have equally devastating effects, so the advice we are issuing represents a range of sensible precautions that should prevent the import of any disease into this country. Please refer to the advice [here](#) if paddling abroad (particularly in Scandinavian countries)

## Biosecurity

Invasive non-native species and parasites have the potential to cause significant economic problems for the nation as well as adversely impacting upon our environment and paddling.

**Impact:** It is estimated that invasive non-native species and fish diseases cost the Scottish economy, and therefore us, upwards of £500 million per year and the UK economy £2 - £6 billion per year. That is why we strongly recommend you to study this information.

1. **Avoid transporting water**, which may contain some form of living creature or plant material, from one water course to another. The simple act of always draining your boat as you leave the water is the most important biosecurity habit you can do, ensuring you make a valuable contribution to protecting Scotland's rich native biodiversity. Please follow this link for [Check Clean Dry](#).
2. **Reporting invasive non-native species:** Click for reporting any sightings, if possible, taking photographs to aid identification to [Reporting Invasive Non-Native Species](#).

An alternative website for reporting is: [iRecord | Manage and share your wildlife records \(brc.ac.uk\)](https://www.brc.ac.uk/Record/Manageandshareyourwildliferecords)

Be aware of special requirements when returning from overseas countries (especially Norway) that have rivers infected with *Gyrodactylus salaris*. Also bear in mind any biosecurity concerns and measures in other countries and follow this advice when travelling outside Scotland.

### **Advice to Paddlers for biosecurity: CHECK, CLEAN, DRY**

Avoid paddling through aquatic weeds in still or slow-moving inland water as some non-native species will benefit from the disturbance and this can lead to canals, rivers and lochs becoming overgrown and impossible to paddle.

### **Whenever you leave the water, remember to Check Clean Dry**

**Check** boats, equipment and clothing after leaving the water for mud, aquatic animals, or plant material. Remove anything you find and leave it at the site.

**Clean** everything thoroughly as soon as you can, paying attention to the inside of your boat and areas that are damp and hard to access. Use hot water if possible.

**Dry** - drain water from every part of your boat and dry with a sponge or towel before leaving the site. Dry everything thoroughly for as long as possible before using elsewhere as some invasive plants and animals can survive for two weeks in damp conditions.

### **Going abroad?**

It's even more important to **Check Clean Dry** if you're taking your kit abroad to make sure you don't bring any plants or animals back with you. Make sure everything is clean and has been dried thoroughly before you use it again at home.

**Assume every water body is infested. Drain your boat and inspect your gear every time.**

### **Advice to prevent transmission of *Gyrodactylus salaris***

Precautions to take before travelling back to the UK after canoeing in Europe:

Action to take if you are going to use your equipment within a week of leaving the foreign country:

- a. **After canoeing in Europe:** Wash your equipment then disinfect it with a chemical disinfectant such as Virkon S or a saline solution. Sachets of

Virkon S can be bought from some canoe shops, or a bag of salt can be taken on holiday to easily make a saline solution for disinfecting your equipment.

- b. **Within a week of leaving Europe:** If you are going to use your equipment within a week of leaving a foreign country it is advisable to dry equipment thoroughly, and where this is not possible to use hot water, disinfectant or salt to kill the parasite. Freezing also kills the parasite.

Items of equipment such as buoyancy aids, spray-decks, throwlines, towlines and sponges should all be considered as potential means of carrying this parasite and be treated in at least one of the above ways.

The area of highest risk is Scandinavia, so paddlers travelling to Norway and Sweden should take particular care. The disease is regarded as a serious threat within Scandinavia and disinfection facilities are available for paddlers and anglers as they move from one river system to another

Further information:

[GB Non-Native Species Secretariat](#)

[Invasive non-native species | Scotland's environment web](#)

[Check, clean, dry](#)

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