

ENGLISH

The spread of invasive fish species- an increasing problem in Vestland

The spread of invasive fish species is an increasing problem in Vestland. We need help to prevent further releases and to spread information about the extensive damage these fish species cause to the aquatic ecosystems in the County.

This online article has also been translated into Norwegian and Polish.



Figure 1. Carp and goldfish are popular pond fish but can cause significant damage to nature if released into natural waterways. Image: Pixabay (StockSnap).

Spread of Invasive Fish Species

The spread of invasive fish species is one of the most serious threats to local freshwater fish and other freshwater biodiversity. The introduction of invasive freshwater fish and the use of live fish as bait are the main causes of spread, according to a recent report on spreading events for the period 2013-2020 (NINA report no. 2099).

What is an invasive fish species?

An invasive fish species is a species that has been introduced to a new area by humans and has a negative impact on the native ecosystem. Invasive species can be categorized as national or regional invasive species. A nationally invasive species is one that originates from countries outside Norway. If

a species is regionally invasive, it naturally occurs in parts of the country but has been spread to new areas, such as tench and pike (figure 2).

NINA Poster on Invasive Fish Species

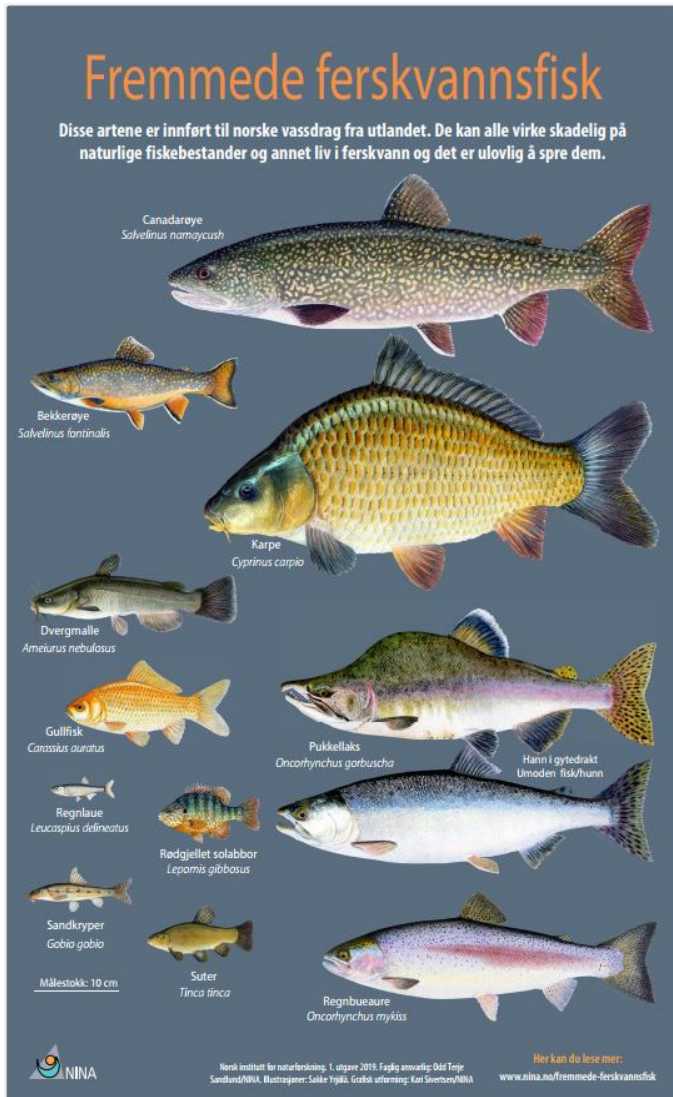


Figure 2. The poster shows nationally invasive species, which can have significant consequences for freshwater ecosystems in Norway. Image: NINA

Consequences of Invasive Fish Species

Invasive fish species pose a significant threat to freshwater ecosystems, with freshwater being the ecosystem with the most threatened species globally. Competition for space and resources, leads to invasive fish species displacing native species, and can ultimately result in local extinctions. Lack of natural predators can lead to a rapid increase in introduced fish populations, causing significant damage to the habitat of other fish species (NINA-rapport nr. 1924). Goldfish and carp can spread diseases and parasites, such as tapeworms. Pike can significantly impact salmonid populations (figure 3). Tench eats prey species of trout, which can lead to a significant decline in trout populations.

What problems do we face in Vestland?

We continuously receive reports of sightings of carp, perch, goldfish, and pike in water bodies where they have not been observed before. Particularly in the coastal municipalities in the southern part of Vestland, we receive reports of sightings of invasive fish. Release of invasive fish often occur at night to avoid detection.

What can be done?

Many methods to eradicate invasive fish species have been tested, such as fishing, rotenone treatment, and draining of ponds, followed by electrofishing or ammonia dispersion. Fishing can reduce the occurrence of invasive fish. Fishing helps prevent further spread to new water bodies and can limit the harmful impact on native species. However, this method does not have as good an effect as treatment with rotenone.

Rotenone has yielded good results in removing unwanted fish species. In the short term, the treatment is harmful to benthic organisms, but studies show that most species return after just one year. The County manager has previously used rotenone treatment in water bodies on Hardangervidda to remove tench. Tench is a regionally invasive species in Vestland, which has a particularly negative effect on trout populations. We have applied for treatment with rotenone in a water body on Hardangervidda this year, where tench has been observed. The treatment could prevent further spread of tench.

Removing invasive fish species by fishing has the advantage of not causing any harm to other species in the water body. Fishing is also easy to implement, compared to more extensive rotenone treatment. These are measures that can be carried out by volunteers, and through the organization of municipalities, and fishing associations. Although the method is not as extensive, the low threshold for implementing measures, means that the treatment can still have a significant overall effect.



Figure 3. Pike can reduce local fish stocks and is a huge threat to salmon and trout. Release of invasive species is a criminal offence and can be punished with up to five years in prison. Image: Pixabay (Marcel Einig).

Report Sightings!

Invasive fish species can have negative ecological consequences for water bodies. Therefore, registrations of invasive fish species should be reported to the State Administration's water environment registry. Feel free to contact the municipality where you observe invasive fish species. They may have resources to follow up and coordinate actions. Alternatively, local hunting and fishing associations may also assist in removing invasive fish species.

NINA (Norwegian Institute for Nature Research) maps the spread of invasive fish species, and should be contacted about new sightings of invasive fish. Provide information about the water body, municipality, size and number of fish, time of observation, and how the observation was made (e.g., fishing or visual sighting). For more information, visit NINA's website:

<https://www.nina.no/Naturmangfold/Fremmede-arter/Fremmede-ferskvannsfisk>.

The [County Council](#) (Fylkeskommunen) provides grants for actions. Additionally, you can apply to the Norwegian Environment Agency for the "Grant for Measures Against Invasive Organisms" ("Tilskudd til tiltak mot fremmede organismer" in Norwegian) through the electronic application portal by January 15.

Share Information

The most important thing you can do is to spread information about the consequences of invasive fish species, to prevent new introductions of invasive fish. Feel free to share this online article or put up signs with information.

This online article is also available in Norwegian, and a Polish version translated by ChatGPT.

References

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