Scientists study the current status of the most important fish populations in Norwegian waters annually. Population estimates are based on the results of our own field studies, research and fisheries. Observations by the general public also make an important contribution of the scientists’ knowledge base, particularly for fish in coastal waters.

Scientists believe that there are almost 300 known species of fish in Norwegian waters, comprising of 257 saltwater varieties and 42 freshwater fish. Of the saltwater species, we are only aware of 177 that reproduce in Norwegian waters.

When a commercial fisherman or angler catches an unknown or rare species, The Institute of Marine Research is a natural place to turn. Often our biologists can determine the species of a fish based on a photo and a description, although in some cases they need to examine the fish more closely in order to be sure.

HOW DO THEY GET HERE?
Some of the foreign species of fish that are observed reach us by pure chance: accidentally carried north by the currents or brought in the ballast water of foreign ships. A number of fish from a single cohort may also arrive here due to the presence of favourable currents. However, in other cases, a large number of observations may be a sign of more fundamental changes. Particularly within the context of climate change, frequent observations of foreign species – and an equivalent decline in sightings of local species – may suggest permanent changes due to higher sea temperatures.

A SHIFT IN THE FISH FAUNA
When the water gets warmer, it makes it easier for species from further south to establish populations in Norwegian waters. Over time, these species can cause a shift in the fish fauna. If they are big predators, for instance, local fish populations may end up being eaten by the newcomers or face greater competition for their food. In extreme situations, the arrival of new species can lead to permanent changes to the ecosystem.

A reliable system for reporting fish observations, as we are now putting in place in collaboration with The Norwegian Biodiversity Information Centre and The Norwegian Zoological Society, will give scientists more information about coastal populations in general. It will also give them access to more data when assessing whether increased sightings of foreign species are down to chance visits, short-term phenomena or longer term changes.

www.artsobservasjoner.no/fisk/

The Institute of Marine Research, The Norwegian Biodiversity Information Centre and The Norwegian Zoological Society are collaborating on a website where people can report the species of fish that they come across. Members of the general public are being encouraged to report all of the fish they catch, but particularly the species that they rarely observe. Observations are quality assured by The Institute of Marine Research (marine species, anadromous and catadromous fish) and The Norwegian Zoological Society (freshwater fish). The information obtained by the scientists will be presented back to the general public.

To contribute, register at www.artsobservasjoner.no/fisk/, where you will also find advice and tips on how to report your observations, and on how to make use of the data available on the website.
Three regular, but unusual, visitors to Norwegian waters

The striped red mullet, John Dory and European seabass are some of the species that are most often observed and reported to The Institute of Marine Research. Reports often come in batches, which may suggest that these species come to our coast in groups.

**STRIPED RED MULLET**

**Distribution:** most common in the Mediterranean and from the Canary Islands in the south to the British Isles in the north. Over the past decade, the number of red mullet in the North Sea has increased. Can live at depths of 3-90 metres, but are most commonly found at 30-60 metres. Use their powerful barbels to dig into sand and clay bottoms in search of various benthic animals. They have been found as far north as Nordhordland in western Norway.

**JOHN DORY**

**Distribution:** most common in the Mediterranean and along the European coast as far north as England. In recent times the species has become increasingly common in Norwegian coastal waters up to Trøndelag, and has even been found as far north as Troms. There is not yet any evidence of John Dories spawning in Norwegian waters. A recent in decline in the number of reports may suggest that the species has gradually become so common that people no longer report it. John Dories are usually found in coastal waters at depths of 5-360 metres. They live alone, but further south in Europe they form shoals during the spawning season.

**EUROPEAN SEABASS**

**Distribution:** a shoaling fish that thrives in shallow, brackish water. Often swims up rivers, but in winter it goes deeper in the sea. The seabass is popular with anglers, both because it fights well and for its delicious meat, and over the past 20 years it has established itself along the Norwegian coast.

Observations of both spawn-ready and spawning individuals in Oslofjorden and Hopefjorden in Masfjorden in Nordhordland are evidence that the species may be capable of completing its whole life cycle in Norwegian fjords. However, no spawn have yet been found, although adult European seabass have been found as far north as Finnmark.