

Will the eel survive its management?

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The European eel is on the way to disappearing for good. The species is critically endangered, and there are strong scientific arguments for suspending all fishing. Despite this situation, Swedish eel fishery is allowed to continue. Analysis of the eel management plan by the Swedish Institute for the Marine Environment identifies clear shortcomings. It is unlikely that Sweden will meet the target that has been set for silver eels capable of migrating back to the Sargasso Sea so that they can contribute to regeneration.

The recruitment of new annual cohorts of European [eel](#) has decreased over a long period, and today it represents only a few per cent of what it was 30 to 50 years ago. The eel is particularly sensitive to overfishing, as it becomes sexually mature at an advanced age, but there also other reasons for its decline. The International Council for the Exploration of the Sea (ICES) has long warned of the consequences of the ongoing [population decline](#), and since 1998 the Council has recommended that an eel management plan should be adopted at the European level. Since 2007, the European Commission has also required all eel-fishing Member States to develop a plan to reduce eel mortality caused by human activity. In Sweden, the Swedish Board of [Fisheries](#) has been tasked by the Government with taking responsibility for a national eel management plan.

Many measures are listed under the plan: prohibition of [recreational fishing](#) for eel, special professional fishing licences for eel, modified fishing times, closure of yellow eel fishing on the west coast and increased stockings of juvenile eels. There is also a declaration of intent

by the Swedish Board of Fisheries together with six power companies to reduce mortality due to eels being sucked into the turbines of hydropower plants.

The analysis of the Swedish eel management plan by the Swedish Institute for the [Marine Environment](#) identifies a number of shortcomings. Some of these are listed below:

- There is a clear conflict between conserving the eel as a species and preserving the eel fishery. The management is aimed at "mitigating" the adverse effects of eel fishery and other human activity instead of guaranteeing that the conservation target is met. By comparison, both Norway and Ireland have introduced a complete suspension of all eel fishery so that migration back to the Sargasso Sea will increase.
- The material on which the plan is based is deficient and lacks critical scrutiny. There is uncertainty in stock assessment which has not been taken into account. There is therefore a great risk of overestimating the size of the stock and continuing to over-exploit.
- The operationalisation of targets as requirements and measures is inadequate – the gains considered to be made from stockings, fishery regulation and reduced turbine mortality are based more on hope than on solid data. Implementation of the plan takes place or is intended to take place over a very long period of time. Even if the plan is eventually followed, it is unlikely that 2.6 million silver eels will be able to migrate, which is Sweden's target. This is due among other things to relatively extensive eel fishery still being permitted and uncertain results from the stocking of Swedish waters with French and British juvenile eels;

the eel may be disoriented and it is doubtful whether it will find its way back to the [Sargasso Sea](#) to spawn.

Provided by University of Gothenburg

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