

## The Endangered European Eel



The European Eel, *Anguilla anguilla* (Linnaeus, 1758) is a highly endangered fish species. Yet you still often see it in the fish counter. The decline of the population is almost unmatched by any other fish. **In 2015** the **migration** of young eels to the North Sea area was **down 99%** compared to levels during 1960s and 1970s. For this reason scientific experts and environmental NGOs call for a complete stop of fisheries targeting eel, and to reduce other pressures and mortality caused by humans for example by hydropower stations.\*

### The Eel Lifecycle Challenge

The mysterious European eel has a unique and long lifecycle. The eel is born in and must return to the Sargasso Sea in the Atlantic Ocean to spawn. As young, eel larvae drift with the North Atlantic currents towards the European coast. Some also enter into the Mediterranean and the Baltic Sea. Most young eel migrate upstream into fresh water where they spend the main part of their life. But many eels that enter the Baltic Sea never migrate upstream a river. At this stage

### Eel management and legal protection of eel is not very effective

*European Eel is listed and critically endangered by IUCN red list, one step away from extinct in the wild. Eel is listed under CITES regulation Appendix II (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) since 2009. This means that exports outside of Europe have been banned, however, trade continues within the EU.*

*The EU in 2007 jointly decided on a management plan for the recovery of the eel stock. The Member States are under the plan required to take measures to secure that 40% of adult eels reach the sea for migration to spawning grounds in the Sargasso Sea outside North America. It is the Member States own responsibility to take relevant measures, and the measures so far are not sufficient especially because of active fishery.*

*In 2015, further steps were taken to strengthen protection and halt decline of the eel population when the Convention on the Conservation of Migratory Species of Wild Animals (CMS) listed the eel in its Appendix II. The Conventions specifically targets endangered species that can be helped by international agreements and states that "Parties shall endeavour to conclude Agreements covering the conservation and management of migratory species.." The basic principle is that, if put in place, such agreements of international cooperation would significantly improve the situation for the species.*

**Coalition Clean Baltic (CCB)** is a politically independent, non-profit association of 19 organizations from Finland, Russia, Estonia, Latvia, Lithuania, Belarus, Ukraine, Poland, Germany, Denmark and Sweden. The CCB member organizations combined have over 800 000 members in all countries around the Baltic Sea.

In CCB, protection of biodiversity is a key area for almost all member organizations. The highly threatened European eel population and Baltic harbor porpoise are of key importance. Marine protected areas are important and has not been fully established in the Baltic Sea and CCB supports a goal of more areas and improved management.

CCB is an observer in several international bodies e.g. HELCOM and via different working groups in CCB push for better implementation, management and monitoring. Important policy areas are the WFD, MSFD, the implementation of the Habitat Directive, also the Common Fishery Policy and Common Agricultural Policy as they both heavily influence marine life in the Baltic Sea.

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of their life they are called yellow eels. After becoming sexually mature, which can be at the age of 15 to 30 years, the body of the eel starts to transform. Their digesting system change and they stop eating, their eyes grow larger and their flanks become silver. In this stage, the eels are known as "silver eels" or migrating eels. Now the last part of their lifecycle starts and they swim back to the Sargasso Sea to spawn.

Eels are known to become very old in the Baltic Sea and hence large old eels that can be observed in the Baltic waters today could have been born in the 1990s or even during the 1980s. This long life cycle makes managing the eel and the effects of management challenging. It also means that if we don't act now and reduce the fishing and other mortality factors of eels we seriously risk this single population.

#### Legal Fishery in the Baltic Region

Eel is still fished legally in all countries around the Baltic Sea. Countries have reduced and in part closed fishing after eel, but fish are still caught and sold in large numbers. Considering the serious situation of the eel stock this is unacceptable. No other fishery exists



photo: Swedish Coastguard

in the Baltic region that target an endangered species. And even worse, the fishery is targeting large adult eels, ready to migrate back to the Sargasso Sea. Every dead fish is a dead parent, crucial for the restoration

of the stock. The Swedish and Danish fishery is extra problematic as these target eels migrating from the entire Baltic. Hence, measures taken in for example Poland and Estonia to protect eels are made redundant when the same eel is later targeted in the straits in Danish and Swedish waters.

#### Illegal Fishery

Eels are not only caught legally but also illegally. A substantial illegal fishery is going on along the southern coasts of Sweden and in the Danish straits. During two and a half months in 2014 alone, over 1300 traps were removed during controls (in Sweden and Denmark) and this is most likely just the tip of the iceberg. Given average catch in such traps, this can mean additional catches of more than

**100 000 mature eels per year.**



photo: Swedish Coastguard

The real numbers are likely much higher as most illegal traps are probably not discovered. Many illegal traps are found thanks to tips from the public to the control authorities.

#### Hydro Power

One of the biggest threats to eels comes from hydro power plants where they are smashed in turbines on their migration downstream. Dams also hinder their migration upstream as young eels. To protect them

there are a few simple measures that can be taken. The first and most efficient one is to install grids at the power stations and allow for free migration routes for eels. Another one can be to stop the turbines from rotating during the relatively few nights when eels are migrating. A third is to catch and release them downstream the power plant, so called trap and transport. The Water Framework Directive ensures the good environmental status of almost all EU waters. This should include free migration routes for fish, but this is not the case in the Baltic region today.

#### CCB Proposals

- Consider eel conservation as a matter of emergency to protect a highly endangered species and ban all targeted eel fishery, especially during the migration period.
- Address the illegal fishery with priority with more and better coordinated controls.
- Ask the public for help with spotting illegal gears and set up and inform about reporting tools via web or phone.
- Catch of eel larvae to rear and release may only be conducted as an emergency measure with strict recommendations to increase potential spawning.
- Install free migration routes, secure catch and transport systems both up -and downstream in all Baltic eel rivers.
- Mitigation measures and rearing and releasing may never be used as excuse for upholding an active fishery.

*\*Sources: ICES WGEEL report and advice for 2015*