



POLICY BRIEF ON EELMANAGEMENT IN THE MEDITERRANEAN

The European eel (*Anguilla anguilla*) is a remarkable and enigmatic species that has fed the human imagination, and belly, for millennia. It is one of 15-18 species of eel found around the world, and consists of one very widespread population. It occurs in most European coastal and inland waterways, in the Baltic region, the Mediterranean and in northern and north-west parts of Africa.

Europe's eel population has declined dramatically since the 1960-1979 reference period and recruitment is now very low. From 1980 to 2010, recruitment of glass eels dropped consistently by approximately 15 percent per year (Dekker, 2000; ICES, 2018; Moriarty, 1990). Today, only 0.5 (North Sea) to 10 ("Elsewhere Europe") percent of eel recruitment remains (ICES, 2022), maybe less. Changes in the marine environment, such as ocean currents and rising temperatures, as well as other factors such as damage to habitats, pollution, parasites, overfishing and hydro-electric power turbines have had a negative impact.

THE LIFE CYCLE OF EUROPEAN EEL



The life cycle of European eel is fascinating and its life's journey is amazing. Following spawning in the Sargasso Sea, early larval-stages begin a passive ocean migration towards European and Mediterranean continental waters. Once they arrive, after about two years, they are transformed into glass eels, many of which will migrate into freshwater habitats, transforming again into yellow eels as they grow. After several years, the mature adults change into silver eels and begin their return trip. The silver eels will leave fresh and coastal waters and swim back to the Sargasso Sea, where they will reproduce once and die. Over 50 percent of European eel habitat has been lost, with the greatest loss observed in rivers, mainly due to migration barriers, such as dams. In key countries such as Spain, Turkey and France large proportions of former eel habitats are no longer accessible.

Stock abundance and fishing yields have declined by about 5 percent annually, down to less than 10 percent of their historical levels (Dekker, 2003; 2004; 2019).

Yet, the European eel is found in almost every country on the European continent and throughout the Mediterranean region, linking habitats as divergent as the high seas, coastal waters, lagoons, large lakes and small ponds, big rivers and the smallest streams. Despite being so depleted, the exploitation of the population also provides employment to many people.



MANAGEMENT FRAMEWORK

The European eel has been listed as Critically Endangered by the International Union for Conservation of Nature (IUCN) since 2008 (Pike et al., 2020). Because of its great decline, the European eel is currently the focus of a number of international and national management measures. In 2007, the European Union finally agreed on a recovery plan (EC 1100/2007), which was to be implemented by each Member State with eel in its waters.

That same year, European eel was included in the <u>CITES Appendix II</u> for species threatened by trade (FishSec, 2022; GFCM, 2023), followed by a <u>unilateral EU trade ban in 2010</u>, which is still in force. It is also listed under Annex II of the Convention on Migratory Species (CMS), as a species that would benefit from international cooperation, and was the subject of a Concerted Action from 2017, until a decision in 2020 that CMS would prepare and adopt an international Action Plan for European eel.

The 2007 EU eel recovery plan and other efforts, such as the EU 3-month eel fishing closures agreed in 2017 and the GFCM transitional management measures adopted in 2018 (Recommendation GFCM/42/2018/1), have strengthened the management framework for European eel, but have only led to a decreased rate of decline of the population, which has now reached the lowest recruitment levels ever recorded (SAC, 2022).

Since that Recommendation in 2018, the GFCM has been on the forefront of European eel management, taking steps that go further than the European Union. Its management framework also covers key eel fishing countries such as Egypt, Turkey and Tunisia. After the International Council for the Exploration of the Sea (ICES) advice in 2021 - calling for a "zero catch" of eels in all habitats and for all life stages in 2022 - and the advice of the GFCM Scientific Advisory Committee in 2022 (SAC, 2022), the GFCM agreed to take further measures to aid eel recovery in November 2022.

Following the GFCM decision, the EU agreed to extend the eel fishing closures from 3 to 6 months in marine, coastal and transitional waters and to ban all recreational fishing in EU waters in December 2022. Despite this achievement, it is unlikely that these additional measures will be enough to secure eel recovery. Neither agreement was fully aligned with the scientific advice from ICES and the GFCM SAC advice (SAC, 2022).



EEL MANAGEMENT IN THE MEDITERRANEAN

In 2018, the GFCM adopted a Recommendation for a multiannual management plan for European eel in the Mediterranean Sea (GFCM/42/2018/1), including a range of transitional management measures. Following the Recommendation, the GFCM continued the discussions in the GFCM Working Group on the management of European eel (WGMEASURES-EEL), as well as at the SAC. Moreover, the GFCM implemented an eel research programme in the Mediterranean starting in 2020. In 2023, a permanent GFCM Expert Group on European eel in the Mediterranean (EGEMed) was created.

Since the 2018 GFCM Recommendation, States are required to submit data on eel fishing activities each year. The results of the most recent reporting show a likely decline in catches, number of fishers and fishing days between 2021-2022 overall, but an increase in the number of fishing vessels in Spain and France (EGEMed, 2023).

The lack of consistent and continuous reporting of data on, for example, eel catches and fishing effort is a major obstacle to improved transparency and accountability in the management of the European eel across the Mediterranean region, and even in the EU. Despite repeated GFCM calls for better reporting of fishing activities across the Mediterranean, the data remains piecemeal, with countries like Egypt, Turkey, Montenegro, Libya and Tunisia providing only some or none of the requested information and even EU countries failing to report consistently. Furthermore, illegal fishing and trafficking remain major obstacles for the recovery of the European eel. Following the advice of the GFCM Scientific Advisory Committee in 2022 (SAC, 2022), the GFCM amended the Recommendation GFCM/42/2018/1 and established a total ban on recreational fisheries and extended the previous three-month closures to six months, for the States to implement either as six consecutive months or separated into two periods of three months each.

According to the GFCM Recommendation GFCM/45/2022/1, the Compliance Committee (CoC) was charged with assessing the implementation of the existing closed periods. In the event that a country has failed to comply with its obligations, the CoC shall immediately require the State concerned to take the necessary measures in order to achieve the objectives of the Recommendation. However, as far as we know, the implementation of the measures related to European eel was not assessed at the last CoC meeting held in May 2023.

The 45th Session of the GFCM also agreed to implement a second phase of the GFCM research programme on European eel, and agreed to evaluate the possibility to implement additional measures directed to glass eel protection, such as a total ban, catch limitations or the determination of key habitats to be agreed in 2023 (GFCM, 2022).



THE NEED FOR FURTHER RECOVERY MEASURES

Considering the lack of improvement in eel recruitment and the overall lack of progress in the EU on reaching the management objectives of the EU eel recovery plan (EC 1100/2007), as well as the ICES and SAC advice in 2022, we believe that a total closure of glass eel fisheries in the Mediterranean is called for, including catches of glass eels for restocking and aquaculture.

According to the outcomes of the first phase of the GFCM research programme on European eel (GFCM, 2023), carrying out any type of fishing activity for glass eels in the Mediterranean for any use does not seem to be justified given the low recruitment levels. The results support a **fisheries management option aimed at reducing all glass eel fishing mortalities to zero** and the implementation of local management measures aimed at protecting current recruitment levels by mitigating all potential impacts at this stage, which is what the SAC recommended in 2022.

Spain and Italy are the only countries in the region with glass eel fisheries (GFCM, 2023), although the catches are limited. France dominates reported landings of glass eels across the population (almost 90% of landings in 2022), but those eels are all fished on the Atlantic side.

The Mediterranean region has been moving ahead in recent years, adopting the most progressive eel management measures. However, additional conservation measures are still needed to support the recovery of this critically endangered species for the future of eels and fishers. When the EGEMed met for the first time in early June 2023, it recalled: "Given the low level of present recruitment, glass eel fisheries for any use do not seem justified in the Mediterranean". The expert group advised for a gradual reduction in glass eel fishing, to be implemented together with an improvement of controls and scientific monitoring, as well as efforts to restore habitat quality, given the compounding threats of habitats' degradation and anthropogenic pollution (GFCM, 2023; Joint NGO submission, 2022).

This autumn provides Mediterranean countries with another opportunity to amend the current GFCM Recommendations, adding further measures to be implemented in 2024, leading up to a decision on a long-term management plan for European eel in the Mediterranean region.

We call on all Mediterranean States to support the following additional transitional measures, to be agreed by the 2023 GFCM annual session:

- a one-year moratorium of glass eel fishing in all Mediterranean waters, to be reviewed next year in light of the outcomes of the GFCM socio-economic analysis and considered as part of the long-term management plan to be adopted in 2024;
- the alignment of the six (or 3+3) months eel fishing closures with peak migration; and
- the need for national efforts to address all sources of human-induced mortality, including the restoration of habitats and migratory routes.

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