

Ms Charlina Vitcheva
Director-General for Maritime Affairs and Fisheries
European Commission Rue Josef II 99
1000 Brussels
Belgium

Dun Laoghaire/ Zoetermeer, 26 April 2022
NSAC Advice Ref. 09-2122

NSAC/NWWAC Advice on European eel management

This paper was approved with consensus by the NSAC and the NWWAC Executive Committee on 26 April 2022 via written procedure.

1. Background

On 12 December 2021 the Commission reached out to the Advisory Councils with a view to summon advice on the management of the European eel following a zero catch ICES advice for all habitats in 2022, published on 4 November 2021. According to ICES this applies to both recreational and commercial catches and includes catches of glass eels for restocking and aquaculture. All other anthropogenic mortalities should be minimized and eliminated where possible.

Members of both the North Sea Advisory Council and the North Western Waters Advisory Council fully recognize the serious condition of the European eel stock and have noticed that ICES issued an advice which is stronger in wording than has been the case in previous years. However, the ACs also take note, that the scientific assessment of the status of the stock has not changed for a number of years. We also note that the EU prepared and adopted a specific Eel regulation¹, establishing measures for the recovery of the stock of European eel, with a set of management measures and options in 2007. This provides a framework for the recovery of the eel stock, which if implemented carefully, should contribute to the improvement of the health of the eel stock. While we understand the rationale behind ICES advice, due to more holistic views the industry, in particular, is not willing to adopt a one-sided perspective of the status of the stock without considering other pressures and ecosystem characteristics in an ecosystem-based approach to fisheries management.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32007R1100&from=EN>

The Advisory Councils recommend that additional measures are developed with an integrated approach between DG MARE and DG ENV regarding the restoration of habitats, upstream and downstream migration pathways, and the reduction of pollution as priorities, while the industry stands ready and is intrinsically interested to continue working together with the Commission on improving the eel situation potentially implementing novel approaches.

Before we provide further recommendations, we would like to draw your attention to some of the assumptions and perceptions underlying the case of the European eel.

2. General considerations

Both NSAC and NWWAC are cognizant of the worrying situation of the European eel stock, which has declined significantly compared to its historic abundance. The European eel spreads across sea basins and inland waters and is fished at all life stages. Numerous factors might be at work when assessing the status of this highly complex stock. Indeed, the eel, unlike other purely marine species, sees its population affected by a large number of factors other than fishing: reduction of functional habitats, hindrance to free movement, pollution, modification of marine currents, predation by birds such as cormorants and herons and more abundant exotic species (case of gleaning catfish for example), artificialization of environments, parasitism, etc.

Since 2015, ICES has recommended that all anthropogenic mortalities of eel should be reduced to as close to zero as possible. In the new advice for 2022, ICES has ended the parity of eel mortalities and calls for a cessation of all fisheries exploitation in all areas and waters of the EU, including all inland waters, as a priority. This advice comes amid the fact that ICES is not able to assess fisheries indicators with existing data and observations and has not accounted for the increasing trend observed since 2011. The current advice focuses on fishing as the main factor for eel mortality. It would be beneficial if other anthropogenic factors were evaluated to the same extent and measures included in the advice.

It is our understanding that the change in wording of ICES Advice is linked to ICES' approach to harmonize the different advice. The wording, therefore, does not reflect a real and significant change in the situation of the eel stock compared to previous years, but rather a simple application of the ICES precautionary approach.² The methodology used does not account for all mortality factors impacting the eel, and the reformulation of the advice should therefore not be used in isolation to put in place additional management measures for fishing, but must be connected to additional measures addressing related anthropogenic pressures.

² Statement included in email correspondence from ICES ACOM members to a query from Danish and Swedish fisheries representatives 24 January 2022 (made available by the representative from the Danish Fisheries PO to the members of the joint NSAC/NWWAC Focus Group).

The approach used in the ICES Advice is in our opinion incomplete for a species with a life cycle as complex and widely distributed as the eel, for which we know that a large part of its functional habitats is highly degraded and that pressures other than fishing, currently unmitigated, are highly decisive for the recovery of the stock. It should be complemented by additional advice on measures addressing other identified anthropogenic pressures and impacts.

The decades-long decline in eel stocks is indisputable, however for some years now the decline in glass eel recruitment has been halted and a stabilisation, even a low-level increase has been achieved. Among other things, the establishment of eel management plans in the context of the implementation of the European Eel Regulation has contributed to this. However, more steps need to be taken to ensure that all Member States fully implement their eel management plans.

The ACs take note of the Commission's conclusion that *"The Eel Regulation is still relevant and basically fit for purpose as an instrument to help the European eel stock to recover. It ensures that management can be applied at all eel life stages and allows to address both fisheries and non-fisheries related anthropogenic impacts.... The Eel Regulation has been effective in that the key EU MS have developed comprehensive EMPs. However, the escapement levels are still well below at least 40% of silver eel biomass target. In terms of ensuring the recovery of the European eel, the Regulation's effectiveness is still far from certain. However, it is widely recognised that the recovery of the European eel will take many decades, given the long life-span of the species."*³ In this respect, further ambition is needed to implement the Regulation with a greater focus on non-fisheries related measures.

In the ICES categorisation of stocks, eel is currently a category III stock – *Stocks for which survey-based assessments or exploratory assessments indicate trends*. Closing the fishery would further hinder data collection needed for this stock to become category I stock in ICES categorisation with full quantitative assessment.

The Danish Institute estimates that the catch of silver eel in salt water only amounts to 3% of the total mortality of eel⁴. NSAC and NWWAC members, cognizant of the low proportion of fishing mortality of the European eel compared to other anthropogenic causes as described above, would like to underline the fact that while the industry has been contributing extensively with some degree of success to the improvement of the eel stock status, similar observations and conclusions cannot be made in the field of other pressures (such as hydropower installations, predation, pollution, eutrophication etc.).

³ 2020 Commission Staff Working Document- Evaluation of Council Regulation N° 1100/2007 of 18 September 2007 establishing measures for the recovery of the stock of European eel {SWD(2020) 36 final}

⁴ DTU Aqua memo to the Fisheries Agency on the Effect of eel regulation for 2018; 2nd May 2018 (made available by the representative from the Danish Fisheries PO).

While fishing undoubtedly removes part of the stock, its regulation alone cannot be enough to reverse the decline of the species, nor constitute a remedy for the degradation of natural environments, in terms of quality (pollution, contamination, endocrine disruptors, etc.) and quantity (channelling of estuaries, drainage and drying of wetlands), as well as for problems related to their accessibility (migration obstacles and fragmentation of habitats for development of river navigation and meeting energy or water supply needs).

In addition to other pressures, management authorities should take into account the ongoing issues emerging from the illegal export of glass eels to Asia (e.g., Stein & Nijman, 2022⁵). In 2018, EUROPOL estimated a volume of 100 tonnes that was illegally traded to Asian destinations during one fishing season⁶. Even though successes have been achieved recently in combating the illegal export of eels (e.g., described in Stein et al., 2021⁷), further efforts are still required on the part of the EU. Any incentives for IUU fishing should be eliminated and the impact of recreational fisheries controlled and monitored.

It is important to bear in mind that implementation of the ICES advice as is would bear consequences and impacts also on all hitherto recovery measures for the European eel based on restocking, which would as a result be terminated. Such a situation would lead, at best, to substantial delays in achieving the restoration objectives, but more likely to irreversible consequences for the species itself. In compliance with the Eel Regulation, the majority of the eel sector already invests a lot into a responsible future. Glass eel fishing mortality, for example, has dropped from 42% in 2007⁸ to 7.2% in 2020⁹.

NSAC and NWWAC note that any additional restriction of professional fisheries would jeopardize the survival of an entire section of the profession and will lead to serious difficulties within the sector in the very short term. These decisions, misunderstood, will involve and will be followed in particular by:

- Disappearance of professional fishers;
- Irreversible destruction of jobs linked to artisanal fishing, within rural communities where it provides many indirect jobs in the local economy. A total closure of European eel fisheries would result in a loss of almost €50 million per year (Hanel et al., 2019¹⁰)
- Irrevocable loss of population monitoring data from professional fishing;

⁵ Nijman V & Stein FM, 2022. Meta-analyses of molecular seafood studies identify the global distribution of legal and illegal trade in CITES-regulated European eels. *Current Research in Food Science*, doi: [10.1016/j.crf.2022.01.009](https://doi.org/10.1016/j.crf.2022.01.009)

⁶ <https://www.europol.europa.eu/media-press/newsroom/news/glass-eel-traffickers-earned-more-eur-37-million-illegal-exports-to-asia>

⁷ Stein et al., 2021. Chinese eel products in EU markets imply the effectiveness of trade regulations but expose fraudulent labelling. *Marine Policy*, 132, 104651, doi: [10.1016/j.marpol.2021.104651](https://doi.org/10.1016/j.marpol.2021.104651)

⁸ Briand et al. (2012) Push net fishing seems to be responsible for injuries and post fishing mortality in glass eel in the Vilaine estuary (France) in 2007. *Knowledge and Management of Aquatic Ecosystems*, 404, 02, doi: [10.1051/kmae/2011080](https://doi.org/10.1051/kmae/2011080)

⁹ Simon et al. (2021) The commercial push net fisheries for glass eels in France and its handling mortality. *J Appl Ichthyol.*; 00:1–14. doi: [10.1111/jai.14292](https://doi.org/10.1111/jai.14292)

¹⁰ Hanel, R et al. 2019, Research for PECH Committee – Environmental, social and economic sustainability of European eel management, European Parliament, Policy Department for Structural and Cohesion Policies, Brussels

- Risk of shifting fishing effort to other species already exploited at their maximum yield or overexploited, particularly in the Bay of Biscay (sole, bass) which will not be without causing conflicts over the resource;
- Development of illegal networks and poaching already well stimulated by the ban on exports outside the EU (an EUROPOL estimate put the value of the illegal network at nearly 3 billion euros¹¹);
- Loss of a centuries-old gastronomic and cultural heritage;
- Severe economic consequences for the northern European aquaculture sector, which is entirely dependent on the supply of wild glass eels.

3 Advice

Considering the above, NSAC and NWWAC advise the following:

1. Any additional measures proposed for implementation must be considered in the context of the three sustainability pillars (environmental, social and economic) and ensure a balanced approach.¹²
2. Akin to management measures agreed to address the equally worrying situation of the Kattegat cod, the NSAC stands ready to work with the Commission to come up with similar appropriate auxiliary measures to help improve the European eel stock.
3. The NSAC and NWWAC advise an increase in the minimum landing size for yellow eel in marine waters, further protecting small eel and ensuring viable spawning age and the inclusion of stakeholders in any discussions and changes to the regulations governing this.
4. ICES reported that time-series from 1980 to 2021 show that recruitment has stopped decreasing in 2011 (ICES, 2021¹³) which is likely associated with measures set in the Eel Management Plan which were implemented after the Eel Regulation came into force in 2007. While ICES has not taken into account the benefits of these management plans, it is imperative that managers continue the selected management approaches together with the fisheries sector. The ACs advises that the Commission brings further progress to the evaluation of MS Management Plans in order to identify best practice examples and weaknesses in developing further measures.

¹¹ <https://www.europol.europa.eu/media-press/newsroom/news/eels-shipped-air-found-in-operation-lake-v>

¹² Regulation (EU) No 1380/2013 of the European Parliament and of the Council on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002: “The CFP should ensure that fishing and aquaculture activities contribute to long-term environmental, economic, and social sustainability.”

¹³ ICES, 2021. Joint EIFAAC/ICES/GFCM Working Group on Eels (WGEEL). ICES Scientific Reports. 3:85. 205pp. <https://doi.org/10.17895/ices.pub.8143>

5. The Commission should consider all causes of eel mortality and develop appropriate management measures, such as for example pan-European cormorant management and proposals to mitigate effects of hydropower installations and ensure open migration paths (safe passage past existing hydropower plants) upstream and downstream.

6. An appropriate control and monitoring of recreational and leisure fishing, which in some countries have similar catch levels than those of professional fishing, should be established.

7. Both NSAC and NWWAC call on the Commission to put in place genuine ecosystem-based management of eel, which also requires the implementation of measures relating to mortality factors other than fishing and cross-cutting management by DG MARE and DG ENV. This presupposes a genuine commitment by the EU and the Member States to the implementation of measures aimed in particular at restoring ecological continuity, water quality and habitats, which has not been done sufficiently and credibly within the framework of the Water Framework Directive.

8. Illegal fishing and trade in European eel continues to be a problem and needs to be forcefully addressed through improvements in control and enforcement. NSAC and NWWAC call for strengthening the coordination of efforts to trace products from the eel sector and to fight against illegal, unregulated and unreported fishing and trade between the Member States and with other third countries;

- Any trade in eel inside the EU should be subject to an EU-wide traceability system creating additional visibility of traceability information while avoiding a punitive administrative burden.
- If Member States fail to implement key measures or fail to collect necessary data to aid the assessment of the status of the European eel population, the Commission shall consider infringement measures.

9. NSAC and NWWAC emphasize that professional eel fishing is working towards achieving the objectives set by the European Eel Regulation (EU No 1100/2007) and wish to recall that the 40 % objective relates to all mortality factors and not only to fishing related mortalities. The ACs advise that objectives for reducing mortality factors other than fishing should be addressed before setting of new measures solely targeting the professional fishing sector. The ACs recall that any additional management measure on fishing, in addition to being ineffective in the absence of actions on other mortality factors, would have significant socio-economic implications for the profession.

10. Both NSAC and NWWAC advise to increase efforts in research, such as for establishing the eel breeding location in the Sargasso Sea in order to protect the area and/or on landings and migration. It is important to increase fishery-independent monitoring of European eel across its natural range. For existing fishery dependent time-series, collaboration with fishermen to continue this under a catch/release system during fisheries closures should be considered.

11. Member States need to make habitat restoration and river connectivity – the opening of migration pathways – priorities under their national eel management plans.

- A standardised tool for prioritising the removal and mitigation of migration barriers, nationally, regionally and on the EU-level should be developed in order to maximise eel recovery and the use of limited funds.
- Increase and speed up of the removal of migration barriers and/or implementation of mitigation measures to reduce eel mortality during both upstream and downstream migration. Best Practice guidance is needed to ensure that only tested and verified mitigation measures are used. Chosen measures such as fish ladders, dam bypasses and hydropower modifications need to be scientifically evaluated for eel.
- All waterways which remain unregulated (i.e., without barriers) should be protected from development.
- In terms of migration barriers and habitat improvements, all Member States have a responsibility under the Water Framework Directive and the Eel Regulation to take action. However, this is an area where the ability to prioritise efforts is crucial and strong regional coordination is necessary. In the “fringe” of the natural range of eel – the northern and eastern parts of the Baltic Sea and the Black Sea – natural eel recruitment is likely to be very low, considering the current recruitment levels of 0.6 % in the “North Sea” index area 2021 (provisional data) and 5.4 % in the “Elsewhere Europe” index series 2021 (provisional data)¹⁴. It is unlikely that a lack of suitable habitat is a major issue in these areas, whereas migration barriers and other threats/sources of mortality in the “core area” for recruitment, such as the Bay of Biscay, the United Kingdom, Ireland and parts of the Mediterranean will have very real effects and need to be addressed with more urgency.
- Ensure that the use of EMFAF funding during the 2021–2027 operational phase is restricted to measures that are proven to aid eel recovery and contribute to increased recruitment. The Commission has great responsibility under the new Fund to ensure that the stronger focus on environmental sustainability is adhered to in the new national Operational Programmes, where Member States have more freedom of choice. The Commission can still require improvements before agreeing, rather than rubber-stamping national proposals.
- Eels are fatty, long-lived fish and particularly sensitive to many persistent pollutants, such as PCBs and dioxins. Measures to improve water quality are important and have added benefits for wider biodiversity.

- END -

¹⁴ ICES. 2021. European eel (*Anguilla anguilla*) throughout its natural range. In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, ele.2737.nea. <https://doi.org/10.17895/ices.advice.7752>