

Director-General Ms Charlina Vitcheva, D.G. for Maritime Affairs and Fisheries European Commission

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Ref: BSAC/2022-2023/5

Copenhagen Thursday 5th May 2022

Dear Ms Vitcheva,

The European Commission is seeking the advice of the BSAC members on how best to implement the ICES advice for eel.¹

The BSAC Ecosystem-based Management Working Group met on 4th February 2022 and again on 2nd March 2022 to discuss the ICES advice for eel and prepare a BSAC recommendation. We are glad of the extension you gave to the ACs, so we could pull out all the stops and produce an extensive paper. This is attached at the end.

In the Baltic Region, eel fishery is not only a business like any other. Eel is part of our cultural and culinary heritage in both coastal and inland communities. Eel is thus a difficult subject for the BSAC. Whilst eel is an endangered species, closing the fishery would be the last straw for fishermen. It is also a difficult subject because it comes under the CFP as well as national competence. However, it has not been impossible to find some common ground. At the same time, there are differences of opinion on some key points.

¹ https://www.ices.dk/sites/pub/Publication%20Reports/Forms/DispForm.aspx?ID=38321

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The BSAC hopes that the Commission and Member States can and will make use of the input.

We also hope that whatever decisions are taken, they put equal pressure on Member States to do more upstream and manage fisheries in internal waters, compared to actions that may be considered in marine and coastal waters.

Kind regards,

Esben Sverdrup-Jensen

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BSAC Executive Committee Chair

Copy to: BALTFISH Member States, Fisheries Council of the European Community, European Parliament, European Fisheries Control Agency, ICES and HELCOM



BSAC recommendations on management measures for eel

The recommendations outline concrete proposals for improving the situation from the regional view of the Baltic. Although European eel is a pan-European stock, the BSAC is delivering a reply from the Baltic.

Earlier BSAC documents are sent as annexes to this consultation.² It highlights the BSAC statement of 9th December 2021.³

The recommendation was adopted by the BSAC Executive Committee in written procedure on Wednesday 4th May 2022.

Opening statement by the BSAC

<u>The BSAC</u> is in consensus that the eel stock is in a serious state and that further measures must be taken.

<u>The BSAC</u> acknowledges that eel management is a complex issue which goes far beyond commercial and recreational fisheries.

<u>The BSAC is unanimous</u> in calling for stronger focus and a faster pace in implementing national measures with respect to anthropogenic, non-fisheries-related sources of mortality.

 $\frac{http://www.bsac.dk/getattachment/BSAC-Resources/BSAC-Statements-and-recommendations/BSAC-proposals-for-possible-ways-forward-to-improv/BSACrepytoeelFINAL1092017CORR050917.pdf.aspx?lang=en-GB$

BSAC advice on eel from 2018:

 $\underline{http://www.bsac.dk/BSAC-Resources/BSAC-Statements-and-recommendations/BSAC-replies-recovery-of-eel}$

The BSAC statement on eel from December 2021:

² Find all the BSAC advice on eel from 2017:

³ http://www.bsac.dk/BSAC-Resources/BSAC-Statements-and-recommendations/BSAC-statement-on-eel



The Council Regulation establishing measures for the recovery of the stock of European eel (Eel Regulation) has been in force since 2007 (EC 2007/1100).⁴ Council Regulation (EU) 2022/109 set fishing opportunities for certain fish stocks and groups of fish stocks applicable in Union waters and for Union fishing vessels in certain non-Union waters, including measures for eel (Article13), for 2022.⁵ However, a quick fix in helping the recovery of eel is not possible. The eel has a generation cycle of around 15 years, which is also highlighted in the Commission's external evaluation, concluded in June 2019.⁶

<u>The BSAC regrets</u> that the Eel Regulation has not yet been fully implemented. The Commission's evaluation of the Eel Regulation concluded that national implementation has been slow and patchy, and needs considerable improvement, especially when addressing non-fisheries related anthropogenic mortality.⁷

The BSAC calls on Baltic Member States to give an update on their national eel management plans, including actions to protect the eel throughout its lifecycle, as well as efforts made and put into place to address factors that cause anthropogenic mortality.

The BSAC asks the European Commission to take action against those Member States which are not fully implementing the Eel Regulation.

<u>The BSAC considers</u> that all anthropogenic threats to the European eel need to be addressed with urgency; not just fishing mortality, but also other sources of mortality such as migration barriers, pollution and pathogens.

 $\underline{https://www.alliedacademies.org/articles/fisheriesregulation-on-european-eel-anguilla-anguilla-for-2018-how-big-isthe-effect-10468.html$

⁴ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32007R1100

⁵ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L .2022.021.01.0001.01.ENG&toc=OJ%3AL%3A2022%3A021%3ATOC

⁶ The report was published 2020-03-05. Official citation from the website is: European Commission, Directorate-General for Maritime Affairs and Fisheries, MacNab, S., Luchetta, G., Nimmo, F. (2020). Evaluation of the Eel Regulation: final report, Publications Office https://data.europa.eu/doi/10.2771/679816

⁷ See the Executive Summary of the Evaluation report, pp. 14 - 20.

⁸ The Association of Fisheries Protection draws attention to a report from Danish Technical University, Freshwater Fisheries and Ecology, Pedersen and Rasmussen, Fisheries Regulation non-European eel (Anguilla Anguilla) for 2018: how big is the effect? According to the report, data suggests that fisheries exploitation of adult eels in the marine areas has relatively little effect on the biomass of silver eel that potentially can escape to the spawning grounds in the Sargasso Sea. Other anthropogenic mortality and predation may be far more important than landings of all life stages and account for 49% of the total loss.



A minority⁹ supports the ICES advice and proposes that there should be no catches of eel in any habitat for at least one average eel lifecycle, during which the effects of a fishing closure can be evaluated.

The BSAC does take note that over the past 10 years, ICES has been calling for all human impacts to be reduced as much as possible.

<u>The BSAC is encouraged</u> by the fact that ICES is working on expanding its ecosystem based advice, and this can incorporate other factors that affect the mortality of eel.

Recommendations for both commercial and recreational fisheries in marine waters

The BSAC is not in agreement on the ICES advice of zero catches in EU waters.

<u>The majority rejects</u> the ICES advice of zero catches and points out that the eel fishery is a centuries-old living cultural heritage.

<u>The BSAC recognises</u> that some fisheries related measures have already made a considerable and positive contribution to the protection and recovery of the eel stock through various protection and stocking measures. A total commercial and recreational fishing ban is not proportionate, and this should also be seen in an EU context.

A minority¹⁰ does not agree with the statement rejecting the ICES advice, nor with the reference to cultural eel heritage being a reason to ignore the scientific advice and continue fishing. They do, however, agree that ICES could show more clearly non-fisheries related mortalities and the drivers behind those.

<u>The BSAC is also of the opinion</u> that the advice of zero catches in all habitats sends the wrong signal to those who are behind the high anthropogenic mortality e.g. hydropower plants and water constructions. There needs to be proportionality in terms of the measures proposed and adopted¹¹.

If all kinds of eel fishing were stopped, it would cost jobs in coastal regions¹².

⁹ WWF, Coalition Clean Baltic, European Anglers Alliance and Fisheries Secretariat are of the opinion that in light of the latest ICES advice, the current targeted fishery cannot continue.

¹⁰ WWF, Coalition Clean Baltic, European Anglers Alliance, Fisheries Secretariat

¹¹ The Fisheries Secretariat and Coalition Clean Baltic cannot accept this statement.

¹² WWF, Coalition Clean Baltic, European Anglers Alliance and Fisheries Secretariat recognise that if all kinds of eel fishing were stopped, it will mean loss of jobs. Measures would need to be taken to mitigate this, through diversification, other roles for fishers in monitoring and habitat restoration, continued trap-and-transport, as well as compensation. The European Anglers Alliance believes that fishing should only be allowed for recovery purposes (e.g. tagging, monitoring and re-stocking).



A total ban on eel fishing will have a major impact on the market by eliminating all eel products (Hanel et al., 2019)¹³. Eel is a part of the traditional food and culture in many regions (Tsukamoto and Huroki, 2014)¹⁴, and it has high value for recreational fisheries (see example from Germany in Dorow et al., 2010¹⁵) and is of importance for marine communities that survive on the sale of smoked eel to visitors.

There are also concerns that with the absence of a responsible sector, which can be the eyes and ears of activities related to eel, the EU will lose its effective control over the illegal eel trade.¹⁶

The BSAC takes note that at the EBM Working Group meeting on 2nd March 2022, ACOM Vice-Chair Henn Ojaveer concurred with the observation that it is not a change in the ICES scientific assessment of the status of eel that has led to the change in the wording of the advice. He explained that this was in order to be clear and consistent with the wording for other stocks. ICES has not done a scientific evaluation of the national management plans, so bases its advice on the precautionary principle. This implies that for stocks believed to be smaller than the limit reference point (or likely candidates for such points), the advice is zero catch or a catch that is expected to bring the stock above the reference point in a single year.

<u>The BSAC also notes</u> that the Joint EIFAAC/ICES/GFCM Working Group on eels (WGEEL)¹⁷ concludes in its report that: "Time-series from 1980 to 2021 show that recruitment has stopped decreasing in 2011, but the trend thereafter is rather unclear."

Concluding that the eel stock has not declined since the introduction of the Eel Regulation and the implementation of national management plans, and that the zero catch advice is a matter of wording and not an actual expression of increased concern for the stock, the BSAC welcomes proposals that contribute to the further recovery of eel, whilst allowing for the fishery to continue.

library.figshare.com/articles/report/Joint_EIFAAC_ICES_GFCM_Working_Group_on_Eels_WGEEL_and_Country_Report s_2020_2021/18620876, page iv <u>Joint EIFAAC/ICES/GFCM Working Group on Eels (WGEEL), and Country Reports 2020–2021 (figshare.com)</u>

¹³ https://www.europarl.europa.eu/RegData/etudes/STUD/2019/629189/IPOL STU(2019)629189 EN.pdf

¹⁴ Tsukamoto & Huroki (2014). Eels and Humans, Humanity and the Sea. https://link.springer.com/book/10.1007/978-4-431-54529-3

¹⁵ Winners and losers of conservation policies for European eel, Anguilla anguilla: An economic welfare analysis for differently specialised eel anglers | Request PDF (researchgate.net)

¹⁶ WWF, Coalition Clean Baltic and Fisheries Secretariat do not support this: in fact, if eel fishing is closed, controls would be simpler since all sold eel would then be illegal.

¹⁷ https://ices-



The BSAC takes note that the eel recruitment indices declined strongly from 1980 to about 2010, and have remained at a low level since. Statistical analyses of the time-series from 1980 to 2019 show a change in 2011 in the trend of glass eel recruitment indices. Recruitment stopped decreasing and has been increasing from 2011–2019 at a rate that differs significantly from zero. The highest value observed during 2011 to 2019 occurred in 2014¹⁸.

A minority¹⁹ points to the fact that the latest ICES advice notes 2020 and 2021 as among the lowest of the index and it has dropped from 1.8% in 2018 to 0.6% (provisional data) in 2021.

The BSAC acknowledges that according to available data, fishing effort has decreased significantly in most Baltic Member States since the Regulation entered into force. The evaluation of the Eel Regulation suggests that effort has declined in Sweden (by over 90%), Denmark (by almost 50%) and Germany (by 25%). However, effort appears to have increased to 180% of the 2012 level in Poland. Wild eel fisheries landings varied between 8.000 and 10.000 tonnes until the early 1990's, when they declined to current levels of around 2.500 tonnes since 2010 onwards, where they are now largely stable.²⁰

A minority²¹ calls for special protection measures to be taken in the Belts and the Sound, in order to protect the spawning migration from the wider Baltic region. These could be implemented through the Technical Measures Regulation. They propose an evaluation of whether the minimum conservation reference²² size is an effective measure for eel. They propose to compensate fishers to continue fishing as part of data collection.

<u>Small scale fishery representatives²³ suggest</u> alternative management measures that can reduce the impact of fisheries during the eel migration period. These can include increasing the minimum landing size for eel and introducing a maximum landing size. This measure would permit the small eels to be released and the largest eels to reach the spawning grounds. Another measure is to re-address the modified three-month closure, which in the 2022 TAC Regulation has been placed at peak migration, with a view to adjusting it.

<u>The BSAC draws attention to data needs.</u> There is an urgent need to implement the legislation that requires the collection and provision of data²⁴. Landing data is needed. There is also a need for a better understanding of the migrations of glass eel and silver eel.

¹⁸ ICES Advice 2019 – ele.2737.nea – https://doi.org/10.17895/ices.advice.4825

¹⁹ WWF, Coalition Clean Baltic, European Anglers Alliance, Fisheries Secretariat

²⁰ SWD(2020) 35 final; Commission staff working document, Evaluation of Council Regulation (EC) No 1100/2007 of 18 September 2007 establishing measures for the recovery of the stock of European eel Brussels, 17.02.2020

²¹ WWF, Coalition Clean Baltic, and Fisheries Secretariat are of the opinion that in light of the latest ICES advice, the current targeted fishery cannot continue.

²² See Annex VIII, part A of Regulation 2019/1241.

²³ Denmark Association for Low Impact Coastal Fishery PO, Danish Fishermen PO and the Association of Fisheries Protection.

²⁴ Data Collection Framework, 2017/1004 <u>EUR-Lex - 32017R1004 - EN - EUR-Lex (europa.eu)</u>



<u>The BSAC calls</u> for measures against IUU fishing for eel to be prioritised. The illegal fishery and subsequent illegal export of eel to Asia is widespread and totally unacceptable. More and serious efforts should be made to make sure that the law is complied with and that sufficient resources are allocated.

Control and inspection must increase by means of targeted and joint measures between the European Fisheries Control Agency (EFCA) and all Member States, as well as elsewhere.

The BSAC calls on Member States and EFCA to provide an update with respect to control and enforcement.²⁵

The BSAC underlines that the EU ban on all eel exports to countries outside the EU should remain. This ban has been in force since 2010²⁶. This ban needs to be combined with further efforts to control it effectively.

<u>The BSAC calls for improvements in the EU-wide traceability systems, including post-landing documentation scheme.</u> The development over time of electronic "from net to plate" traceability systems will support verification of the legality of eel batches along the supply chain.

<u>The BSAC calls for</u> a mandatory catch documentation system in both commercial and recreational fisheries, such as tagging systems.

<u>The BSAC calls for the implementation of a European management plan for cormorants.</u>

Predation from cormorants (as well as herons) has increased considerably over the last decades and could have a significant impact. A minority does not support this²⁷.

Recommendations for inland waters and necessary measures for stock recovery

<u>The BSAC finds</u> that there is an imbalance between the measures applied to the fishery in the marine environment and the anthropogenic mortality in inland waters. There is an urgent need to strengthen measures which focus on freshwater eel mortality.

<u>A minority²⁸ underlines</u> that most of the freshwater mortality is due to the fact that eel for restocking continue to be released above barriers and hydropower stations, and that this practice cannot be considered a conservation measure contributing to eel recovery, and must stop.

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²⁵ This was already raised by the BSAC at its Executive Committee meeting with EFCA on 6th May 2021: http://www.bsac.dk/Meetings/BSAC-meetings/Executive-Committee-meeting-with-EFCA

²⁶ https://circabc.europa.eu/sd/a/49ab3fc9-646b-4b35-ac42-f0333479ce24/54_summary_srg.pdf

²⁷ WWF, Fisheries Secretariat, Coalition Clean Baltic

²⁸ WWF, Fisheries Secretariat, Coalition Clean Baltic



<u>The BSAC underlines</u> that man-made non-fishery-related anthropogenic sources of mortality must be given top priority. The ICES advice that other anthropogenic mortalities should be minimised and eliminated where possible needs to be taken seriously in order to reduce the overall mortality of eel. This means in particular addressing barriers to both upstream and downstream migration, such as hydropower plants and pumping stations, channel deepening in rivers and pumped storage plants, as well as pollution.

Migration barriers and efforts to tackle river continuity must be addressed with more urgency. The BSAC underlines that dam owners and hydropower companies have a strict responsibility here. There is a range of demonstrated and proven measures that can be applied in order to reduce eel mortality, especially for downstream passages at dams. Those passages already in place must be maintained and kept clear of rubbish and debris. Hydropower companies should be required to report to Member States on methods used to aid eel migration and report on observed eel mortality at each individual power plant. Trap and transportation schemes are an effective measure to increase the survivability of incoming glass eel and are also an effective measure for silver eel escapement. Hydropower plant and dam owners should be compensating fishers for the costs of trap and transportation schemes.

If possible, less expensive measures to enable safe passage of eels through hydropower stations and dams should be implemented, based on evaluation of best practices²⁹.

<u>The BSAC calls on</u> Member States to give full priority to improving the ecological status or potential of waterbodies and to address the problems of eel migration.³⁰

<u>The BSAC highlights</u> the updated HELCOM Baltic Sea Action Plan, which includes two actions concerning eel.³¹

Tamario et al 2019 http://www.bsac.dk/getattachment/Meetings/BSAC-meetings/BSAC-Ecosystem-Based-WG/Tamario-et-al-2019.pdf.aspx?lang=en-GB

Watz et al 2019, http://www.bsac.dk/getattachment/Meetings/BSAC-meetings/BSAC-Ecosystem-Based-WG/Watz et al-2019-Animal Conservation-1-1.pdf.aspx?lang=en-GB

Westlin 2003 http://www.bsac.dk/getattachment/Meetings/BSAC-meetings/BSAC-Ecosystem-Based-WG/Westin-2003.pdf.aspx?lang=en-GB

The European Commission has produced guidance on barrier removal for river restoration https://ec.europa.eu/environment/publications/guidance-barrier-removal-river-restoration en

²⁹ Durif et al 2021, http://www.bsac.dk/getattachment/Meetings/BSAC-meetings/BSAC-Ecosystem-Based-WG/Durif-et-al-2021-A-unifying-hypothesis-for-the-spawning-migrations-of-temperate-anguillid-eels.pdf.aspx?lang=en-GB

³⁰ Member States are required to improve the ecological status or potential of waterbodies under the Water Framework Directive 2000/60/EC https://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF

³¹ HELCOM BSAP Actions B16 and B17 https://helcom.fi/media/publications/BSAP-full-publication-v21-220405.pdf



<u>The BSAC proposes</u> that Member States establish a concrete five-year plan on how to address the most important water bodies, with a set target of 90% survival of eel and other migrating fish escaping to the sea³².

<u>The BSAC asks</u> the European Commission to include monitoring and inspection of the man-made non-fishery-related sources of mortality of eel into the European fisheries control system/relevant EU legislation.

Restocking

<u>The BSAC agrees</u> that if restocking is to be used, restocking efforts must only be allowed in eel safe waters in the Baltic. Restocking above hydropower stations should only be allowed if proven measures such as eel passages are applied, in order to reduce eel mortality during their passage through hydropower installations and dams. However, waters with multiple hydropower stations cannot be considered eel safe, even with mitigation measures.³³

The BSAC does not agree on a clear definition on what eel safe waters means. In relation to migration barriers, it is clear that a water with a dam without any downstream migration opportunity or "eel taxi" (trap and transportation schemes) can never be considered eel safe.

<u>The BSAC considers</u> restocking as one way of keeping the fishers in business, whilst also having the potential for enhancing stock recovery.

The BSAC takes note that one of the main arguments against restocking is the high mortality during glass eel fisheries. The BSAC draws attention to the fact that a scientific study by Briand et al.³⁴ assessed the glass eel fishing mortality in pre-Eel Regulation conditions and determined an average mortality of 42%³⁵. This high mortality has repeatedly been used as an argument against glass eel fishery for restocking. More recently, Simon et al. (2021)³⁶ re-assessed the glass eel fishing mortality in post-Eel Regulation conditions and determined a mortality of only 7.4%. This scientific evidence should be considered before any decisions to close down the eel fishery are taken. No clear evidence has been put forward to contradict restocking³⁷, ³⁸.

³² Union of German Cutter Fishery and Danish Fishermen PO do not support the statement and do not find this goal feasible.

³⁴ 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 (2012) 404, 02, doi: 10.1051/kmae/2011080

³⁵ The Fisheries Secretariat is of the opinion that there is no evidence that restocking leads to any increased reproduction of eels. It cannot be considered a conservation measure, as intended in the Eel Regulation.

³⁶ Simon et al. (2021) The commercial push net fisheries for glass eels in France and its handling mortality. J Appl Ichthyol. 2021;00:1–14. doi: 10.1111/jai.14292

³⁷ Mads Christoffersen et al. Survival and growth of released eel in Karrebæk Fjord DTU Aqua report 345- 2019 (in Danish). See English abstract page 6.

³³ Union of German Cutter Fishery calls for a clear definition of "eel safe waters".



A minority ³⁹ refers to the fact that all restocking is based on wild eel and that according to scientific advice, it cannot continue. According to ICES, there is no "surplus" of glass eels for restocking (ICES, 2010⁴⁰). There are many uncertainties and risks related to the effects of restocking as a conservation measure. The restocked eel mask the real situation of extremely poor recruitment and other measures to improve natural recruitment must be prioritised, such as ensuring water connectivity in areas with relatively high natural recruitment. Current scientific advice leaves no room for restocking, and there are numerous ICES reports and scientific studies⁴¹ that question the effectiveness of restocking for eel recovery. But should this measure continue, as set out in the EU Eel Regulation (EC 1100/2007), an EU framework to maximise the conservation benefits, cost-effectiveness and minimize the spread of pathogens needs to be put in place. Releases above barriers should not be eligible to receive public funding, as they cannot be considered a "conservation measure".

https://backend.orbit.dtu.dk/ws/portalfiles/portal/194236785/345 2019 Overlevelse og vaekst af udsatte aa

³⁸ Fisheries Secretariat and WWF do not agree. Fisheries Secretariat asks for clarification on the purpose for which restocking is carried out if it is argued that there is "no clear evidence to contradict" it, because it goes against ICES advice and there is no evidence that it contributes to recruitment of eel.

³⁹ WWF, Coalition Clean Baltic, Fisheries Secretariat. The European Anglers Alliance sees the need for a re-evaluation of current glass eel abundance to see if there are sufficient numbers to allow for continued restocking.

⁴⁰ ICES advice 2010, ICES advice 2010, page 115 Section 9.4.9: Given the current record-low abundance of glass eels, ICES reiterates its concern that glass eel stocking programs are unlikely to contribute to the recovery of the European eel stock. This is because (a) there is no surplus anywhere of glass eel to be redistributed to other areas and (b) there is evidence that stocked/translocated eels experience impairment of their navigational abilities https://www.ices.dk/sites/pub/Publication%20Reports/ICES%20Advice/2010/ICES%20ADVICE%202010%20BOOK%209.pdf

⁴¹ Rothla et al. Conservation restocking of the imperilled European eel does not necessarily equal conservation, ICES Journal of Marine Science, 2020 http://www.bsac.dk/getattachment/Meetings/BSAC-meetings/BSAC-Ecosystem-Based-WG/Rohtla-e-tal-2020 Conservation-restocking.pdf.aspx?lang=en-GB