



Joint NGO recommendations on Baltic Sea fishing opportunities for 2024

1. INTRODUCTION

The Baltic Sea ecosystem is in severe distress and the major commercial fish stocks have never been in worse condition. Both cod stocks are on the verge of collapse, all herring stocks are facing severe difficulties except the well managed Gulf of Riga herring, salmon is in decline and sprat has had low recruitment for two years in a row. Only the plaice spawning stock biomass is high, however alarming signals show a high number of small and skinny fish. In ICES' own press release, the situation was summarised accordingly: *"For a number of large commercial stocks, the advice does not make for positive reading."* and *"The Baltic Sea faces many challenges, and conditions here have been deteriorating over the past decade. Overfishing and habitat destruction have impacted the biodiversity and ecological balance of the sea."*¹

It is clear the current management system is not working.

We must have a management system in the Baltic Sea accounting not only for fisheries, but acknowledging and protecting ecosystem functions. As of today, the Baltic Sea does not even have mixed fishery advice. Considering the dire state of the Baltic and its fish, all sectors with an impact on the ecosystem must contribute to bringing the Baltic back to a healthy and productive state. In the case

¹ https://www.ices.dk/news-and-events/news-archive/news/Pages/baltic_advice.aspx



of the fisheries sector, this means adjusting fishing pressure to respect the limits of the system and minimising other impacts of fishing on the marine environment.

In October 2023, EU fisheries ministers will agree on fishing opportunities in the Baltic Sea for 2024. As the deadline to end overfishing by 2020 at the latest as legally prescribed by Article 2(2) of the Common Fisheries Policy (CFP)² has passed, all fishing limits must be in line with sustainable exploitation rates.

We emphasise the urgency to implement ecosystem-based fishing opportunities

The political decision-making process favours short-term considerations rather than longer term sustainability, and the current system for determining fishing opportunities is not geared towards an ecosystem-based approach given the single-stock focus. The Baltic Sea currently lacks mixed fishery advice, and we welcome the initiative to include participants from the Baltic Sea in the ICES Working Group of Mixed Fisheries in 2023³. We hope for a swift development of mixed fishery advice, as it is clearly needed.

Setting TACs based on single species advice fails to reflect the need to consider sub-populations at risk, lacks consideration of size and age distribution and does not factor in the impact of mixed fisheries on bycatch of vulnerable or depleted stocks (such as bycatch of cod in flatfish fisheries or herring caught in sprat fisheries).

ICES could produce more comprehensive and ecosystem-based advice but the decision-makers must request this and until they do, they must set TACs with much greater caution, i.e. sufficiently below the official ICES headline advice. The commitment of the EU and the UK to submit a request to ICES on the extent to which its single-stock advice for forage fish reflects ecosystem considerations is a welcome step towards more ecosystem-based fisheries management (EBFM).⁴ We strongly encourage the EU to extend this initiative to the Baltic Sea, as a basis for truly ecosystem-based fishing limits that fully take into account ecosystem dynamics and needs (such as those of dependent predators like seabirds and marine mammals), as well as pressures likely to impact ecosystem health and productivity, like climate change.

A recent paper by Trenkel et al. (2023)⁵ provides a useful overview of different ecosystem considerations and the extent to which they are already reflected in ICES advice on fishing opportunities, including Baltic fish stocks.⁶ The Commission and the Member States should carefully consider and build on the findings of this paper to ensure that all relevant ecosystem considerations are comprehensively factored into the scientific advice used as a basis for TAC-setting going forward. Any potential gaps in this regard should be urgently identified and their implications explicitly addressed, for example by requesting ICES to further develop advice geared towards informing EBFM, and in the meantime by setting TACs below the relevant headline advice where this does not yet fully account for ecosystem dynamics and needs.

The results of the holistic assessment by the Baltic Marine Environment Protection Commission (Helsinki Commission, HELCOM) on the state of the Baltic Sea reflect that several action areas lag behind in implementation, despite the deadline for achieving Good Environmental Status (GES) of the marine environment by 2020 according to the Marine Strategy Framework Directive (MSFD) and by 2021 according to the Baltic Sea Action Plan (BSAP), before it was updated with new targets and a new deadline⁷. The European Green Deal⁸ commits the EU to tackle the impacts of climate change and

² REGULATION (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy

³ ICES. 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.23123768.v1>

⁴ Written Record of fisheries consultations on 09 to 13 March 2023 between the United Kingdom and the European Union about sandeels in 2023, points 5 and 6. https://oceans-and-fisheries.ec.europa.eu/system/files/2023-03/2023-eu-uk-fisheries-consultations-sandeels_en.pdf

⁵ Trenkel, V. M., Ojaveer, H., Miller, D. C. M. & Dickey-Collas, M., 2023. The rationale for heterogeneous inclusion of ecosystem trends and variability in ICES fishing opportunities advice. In: Marine Ecology Progress Series. 704, p. 81-97 17 p. <https://doi.org/10.3354/meps14227>

⁶ See the underlying dataset which can be downloaded from https://ices-library.figshare.com/articles/dataset/Audit_of_the_use_of_productivity_trends_in_fisheries_advice/19863214/1 and filtered by column B "Expert group" for the "WGBFAS" group to show the Baltic stocks.

⁷ HELCOM, 2021. HELCOM Baltic Sea Action Plan - 2021 update. HELCOM 2021

⁸ The European Green Deal Communication from the Commission to the European Parliament, The Council, the European Economic and Social Committee of the Regions. The European Green Deal

protect and restore biodiversity. Specifically, the EU Biodiversity Strategy⁹ commits to ecosystem-based management, a transition to more selective and less damaging fishing methods, and to setting all fishing limits at or below Maximum Sustainable Yield (MSY) levels, in order to restore ocean health. The “Action Plan to conserve fisheries resources and protect marine ecosystems”¹⁰, noted as a deliverable in the Biodiversity Strategy, has become a crucial strategy to improve implementation of, and fill gaps in, EU policies as well as to put European fisheries management on a path where the full ecosystem and climate impacts of fishing (including the bycatch of sensitive species, like the Baltic harbour porpoise or impact on the seafloor) are properly measured and mitigated. The setting of TACs and the distribution of fishing opportunities should be done in accordance with Article 17 of the Common Fisheries Policy¹¹, favouring low impact fisheries that minimise their impact on the Baltic Sea ecosystem.

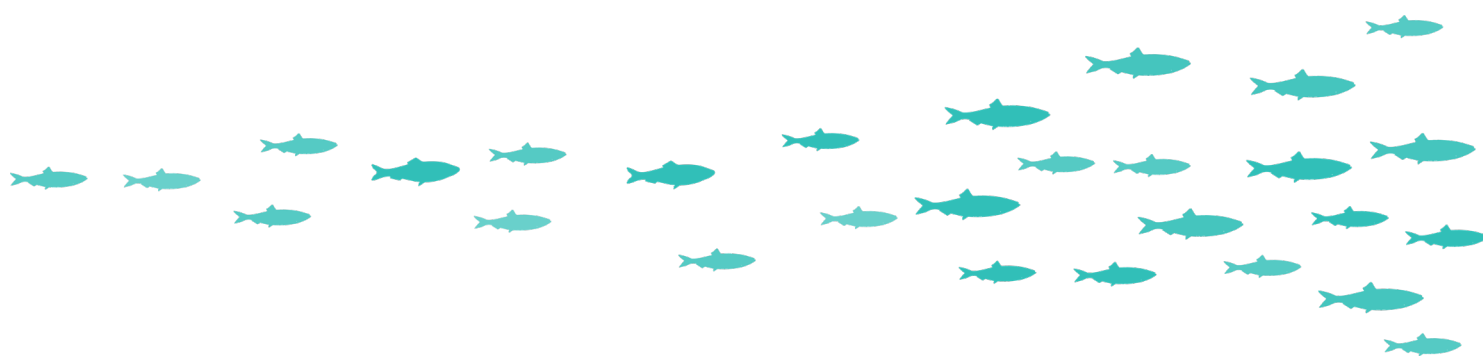
A more precautionary approach is necessary

The Commission and Ministers must reconsider the current approach by requesting new and different scientific advice that, for example, adequately reflects ecosystem considerations, safeguards vulnerable sub-populations, and prioritises a healthy size and age distribution, or we will face more stocks faltering. The solution here and now is to take a more precautionary approach by setting TACs below the ICES headline advice, i.e. staying within, or below, the lower bounds of the F_{MSY} ranges where these apply, and below the precautionary advice for more data-limited stocks.

Setting fishing opportunities within those principles provides the Commission and fisheries ministers with a clear and attainable opportunity to deliver on their commitments in the updated HELCOM Baltic Sea Action Plan and the Our Baltic Declaration from 2020 initiated by Commissioner Virginijus Sinkevičius, as well as on their legal obligation according to the CFP to end overfishing. It is also an opportunity to begin to realise the ambition of the EU Biodiversity Strategy 2030.

Transparent decision making

The European Ombudsman has confirmed that fishing opportunities documents contain ‘environmental information’ within the meaning of the Aarhus Convention, and made recommendations to improve the transparency of the Council when setting fishing opportunities. The Ombudsman further confirmed a finding of maladministration in April 2020,¹² expressing disappointment that Council decision-making contravened key democratic and transparency standards. We therefore urge the Commission and the Council to make the decision-making process of setting fishing opportunities fully transparent.



⁹ [Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions EU Biodiversity Strategy for 2030 - Bringing Nature Back into Our Lives](#)

¹⁰ [COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. 21.02.2023. EU Action Plan: Protecting and restoring marine ecosystems for sustainable and resilient fisheries](#)

¹¹ Art. 17 of the CFP: When allocating the fishing opportunities available to them, as referred to in Article 16, Member States shall use transparent and objective criteria including those of an environmental, social and economic nature. The criteria to be used may include, inter alia, the impact of fishing on the environment, the history of compliance, the contribution to the local economy and historic catch levels. Within the fishing opportunities allocated to them, Member States shall endeavour to provide incentives to fishing vessels deploying selective fishing gear or using fishing techniques with reduced environmental impact, such as reduced energy consumption or habitat damage.

¹² <https://www.ombudsman.europa.eu/en/decision/en/127388>

Summary of NGO recommendations

The following text outlines the joint NGO recommendations on Baltic Sea fishing opportunities for 2024 in the context of environmental regulations, EU fisheries legislation, scientific advice on catch limits, and the sharing of stocks with third countries.

Overall, we urge the European Commission to propose, and fisheries ministers to adopt, fishing opportunities in accordance with the following recommendations:

- Set TACs not exceeding the best available scientific advice provided by the International Council for the Exploration of the Sea (ICES), both for stocks with advice based on the ICES MSY approach (where MSY-based reference points are available) and for stocks with advice based on the ICES precautionary approach for data-limited stocks. The F_{MSY} point value specified in the Baltic Sea Multi-Annual Plan (MAP) must by no means be exceeded and the Commission and fisheries ministers should consider setting TACs below the lower end of the F_{MSY} range, as provided for by Article 4(4) of the Baltic MAP.¹³
- In light of the dire situation of the Baltic Sea ecosystem including many of its fish stocks, set TACs sufficiently below the relevant ICES headline advice presented at the top of the respective ICES single-stock advice document, and ensure that these limits are respected, in order to prioritise the protection and recovery of depleted stocks and to factor in additional anthropogenic pressures and ecosystem dynamics.

Concretely this means the following:

- Set TACs at more precautionary, i.e. lower levels and in line with an ecosystem-based approach to fisheries management (along with additional spatial and temporal measures) to accommodate mixed fisheries interactions (cod bycatch in flatfish fisheries and mixed catches of herring and sprat, for example), stock-specific uncertainties (catch misreporting, discards, assessment bias etc.), interspecies dynamics (e.g. sprat/herring - cod) and low recruitment trends of individual stocks, whilst also considering other pressures (e.g. pollution, eutrophication, climate change as now explicitly stated in the ICES advice at least for the cod stocks) on the Baltic ecosystem that are likely to affect the abundance of fish populations. Good examples of this approach are Fisheries Council decisions from October 2021 on the central Baltic herring and sprat TACs for 2022, as well as the Fisheries Council decision on the Baltic plaice TAC for 2023, set below the maximum threshold advised by the scientists;
- Fully utilise the precautionary approach in relation to mixed fisheries, protecting the most vulnerable stock(s), by closing areas with high mixing and/or by substantially reducing quotas to safeguard sub-populations and the risk of genetic depletion;
- Consider that control with onboard observers was significantly reduced in 2021 due to the Covid-19 pandemic, and discard rates are subject to high uncertainty;
- Consider the widely recognised lack of implementation of the Landing Obligation (LO)¹⁴ by setting TACs sufficiently below ICES catch advice to ensure illegal, unreported discarding does not lead to actual catches exceeding ICES catch advice,^{15,16} and require remote electronic monitoring (such as cameras) or onboard observers for all vessels above 12 m and for medium and high-risk vessels below 12 m.

¹³ Article 4(4) of the Baltic MAP states that "Notwithstanding paragraphs 1 and 3, fishing opportunities may be fixed at levels that are lower than the ranges of F_{MSY} ."

¹⁴ [COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Towards more sustainable fishing in the EU: state of play and orientations for 2023](#)

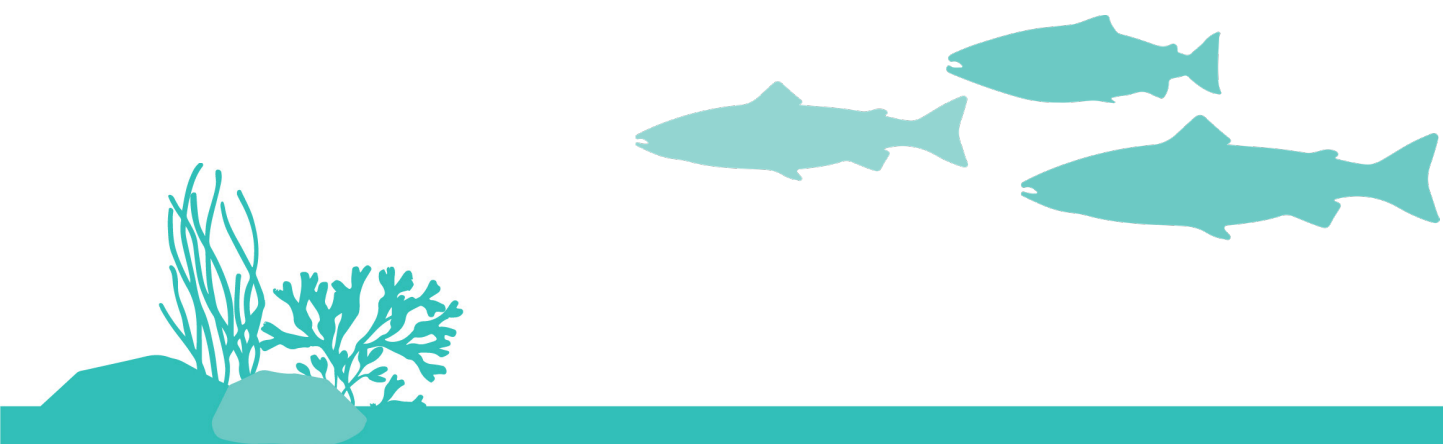
¹⁵ [ClientEarth, 2020. Setting Total Allowable Catches \(TACs\) in the context of the Landing Obligation. July 2020](#)

¹⁶ Borges, L., 2020. The unintended impact of the European discard ban. *ICES Journal of Marine Science*, *ICES Journal of Marine Science*, Volume 78, Issue 1: 134-141, <https://doi.org/10.1093/icesjms/fsaa200>

Additionally, we call for improved transparency of negotiations and decisions as follows:

- Provide transparent calculations for TACs based on the ICES advice on fishing opportunities;
- Improve transparency by making publicly available any proposals subsequent to the official Commission proposal, including Commission non-papers as well as Council Working Party, AGRIFISH Council, and BALTFISH documents and minutes.

Finally, the European Parliament, as a co-legislator of the CFP basic regulation and of the Baltic Sea MAP, should be vigilant that no infringements of the rules for which it is responsible occur, and that the overarching objective of rebuilding EU fish stocks to healthy levels is fully achieved.



2. SUMMARY OF NGO RECOMMENDATIONS ON BALTIC SEA TACS AND ADDITIONAL MEASURES FOR 2024

TAC by area-species	TAC set for 2023	ICES advice basis	ICES stock catch advice for 2024 (tonnes) ¹⁷	ICES advice adjusted for - Third Country shares - Stock & TAC area mixing	NGO recommendations on TACs and additional measures for 2024
Eastern Baltic cod (SDs 25-32)¹⁸	595 t (by-catch only) ¹⁹	Precautionary Approach	0 t	n/a ²⁰	0 t - Increase monitoring and control on all vessels using active gears in all areas but prioritised in cod concentration areas, combining both REM and traditional controls. - Set the plaice TAC well below the respective single-stock headline advice in order to prioritise cod protection and recovery. - Ensure that any vessels fishing for flatfish use gear that successfully minimises cod bycatch and introduce additional measures to avoid and minimise cod bycatch in any fisheries using active gears. Access to the plaice TAC must be conditional on the use of such gear. - Consider a full closure of the known spawning areas of EBC during the spawning period.²¹ - Request scientific advice on the changed spawning period. - Continue with recreational measures agreed for 2023.²²

¹⁷ For Baltic and Gulf of Finland salmon, we have interpreted ICES advice as the 'Commercial Landings' (the reported projected landings) of individual fish. This is the 'Total Commercial Sea Catch' with deductions for the unreported, mis-reported (i.e., IUU) and unwanted catch (i.e. seal damage and discards), as estimated by ICES.

¹⁸ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 24-32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.24-32. <https://doi.org/10.17895/ices.advice.21820497>

¹⁹ The 2023 TAC was set at 2,195 tonnes, "calculated as EU TAC + information on Russian Federation quota". 595 tonnes was the EU TAC only.

²⁰ Deduct 5% Russian share from the advice for eastern Baltic cod. Deduct catches of eastern Baltic cod in SD 24 (i.e., those caught in the western Baltic cod TAC area). Not applicable with zero catch advice.

²¹ See for example HELCOM, 2019 "[Essential fish habitats in the Baltic Sea](#)" Meeting of the continuation of the project for Baltic-wide assessment of coastal fish communities in support of an ecosystem-based management (FISH-PRO III).

²² [COUNCIL REGULATION \(EU\) 2022/2090 of 27 October 2022 fixing the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea for 2023 and amending Regulation \(EU\) 2022/109 as regards certain fishing opportunities in other waters](#)

Western Baltic cod (SDs 22-24)²³	489 t (by-catch only)	Precautionary Approach	24 t (this applies to the sum of commercial and recreational catches)	n/a	n/a - Due to the degraded state of the stock and high uncertainties we cannot provide a quantitative catch recommendation, but commercial targeted fisheries on western Baltic cod should remain closed, and all recreational fishing should be prohibited. - All spawning areas must continue to be fully protected and closed from fishing activities in the relevant spawning period. The closure must apply to both commercial and recreational fishers. - Take a precautionary approach and thereby extend the closure period so it includes the time when the cod aggregate before they spawn and to take into account any seasonal differences.²⁴ - Increase at-sea monitoring and control on all vessels using active gears in all areas but prioritised in cod concentration areas, combining both REM and traditional controls. - Set the plaice TAC well below the respective single-stock headline advice in order to prioritise cod protection and recovery. - Ensure that any vessels fishing for flatfish use gear that successfully minimises cod bycatch,²⁵ and introduce additional measures to avoid and minimise cod bycatches in active demersal flatfish fisheries. Access to the plaice TAC must be conditional on the use of such gear. - Introduce trawl free areas in essential cod habitats.
Western Baltic herring (SDs 20-24)²⁶	788 t (by-catch only)	MSY Approach and Precautionary Approach	0 t	n/a	0 t - Implement additional measures to protect and restore known spawning habitats and nursery areas, as indicated in the ICES advice. - Implement additional area and/or time restrictions on the herring fishery in the North Sea and SDs 20-21, as catches of WBSS in the North Sea will be inevitable.²⁷

²³ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 22-24, western Baltic stock (western Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.22-24. <https://doi.org/10.17895/ices.advice.21820494>

²⁴ Essential fish habitats in the Baltic Sea – Identification of potential spawning, recruitment and nursery areas. HELCOM (2021) <https://helcom.fi/wp-content/uploads/2021/09/Essential-fish-habitats-in-the-Baltic-Sea.pdf> and Støttrup, J. G., Kokkalis, A., Brown, E. J., Vastenhoud, B., Ferreira, S., Olsen, J., & Dinesen, G. E. (2019). Essential Fish Habitats for commercially important marine species in the inner Danish waters. Technical University of Denmark. DTU Aqua-rapport No. 338-2019 <https://orbit.dtu.dk/en/publications/essential-fish-habitats-for-commercially-important-marine-species>.

²⁵ ICES states in the advice for plaice in subdivisions 21-23 that “There are gears available that successfully reduce cod bycatches in the flatfish fisheries; however, these gears are not currently in use. Reducing the bycatch of cod in flatfish fisheries may enhance the recovery of the cod stocks.” (ICES (2023). Plaice (*Pleuronectes platessa*) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820533.v1>)

²⁶ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 20-24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.20-24. <https://doi.org/10.17895/ices.advice.21907944>

²⁷ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 20-24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.20-24. <https://doi.org/10.17895/ices.advice.21907944>

Central Baltic herring (SD 25-27, 28.2, 29 and 32) ²⁸	70,822 t	EU MAP (F_{MSY})	52,459 t	Deduct 9.5% Russian share. Add 902 t for Gulf of Riga herring to be taken in SD 28.2 and deduct 2,959 t for Central Baltic herring to be taken in the Gulf of Riga (SD 28.1).	n/a - Due to the degraded state of the stock and high uncertainties we cannot provide a quantitative catch recommendation, but fishing pressure should be minimised. In its advice, ICES recognises that “<i>Even a zero catch in 2024 will not bring the stock above B_{lim} in 2025 with 95% probability.</i>”, meaning the risk of the stock falling or remaining below B_{lim} would exceed 5%, contrary to what Article 4(6) of the Baltic MAP requires.²⁹ Any higher TAC would therefore not be in line with the Baltic MAP. If however, a non-zero TAC is nonetheless adopted, this should be limited to a small allowance reserved exclusively for low-impact coastal fishers catching herring for direct human consumption. Sources of uncertainties and reasons for precaution: - The dire state of the stocks (below B_{lim} since 2020 and projected to remain there) and the Baltic ecosystem - Subpopulations and the risk of genetic depletion - Misreporting between herring and sprat - Russian share, estimation 27,000 t of catch 2023 - Margin of tolerance - Multispecies considerations - The WGBFAS suggested that “<i>F = 0 should be considered as basis for the advice</i>”³⁰, and any non-zero TAC would not be in line with Article 4(6) of the Baltic MAP. Recommended actions: - Improve control, enforcement, onboard monitoring and sampling of landings to ensure that the misreporting of sprat as herring does not occur. - Set the sprat TAC low due to mixed pelagic fishery.
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²⁸ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). Replacing advice provided in May 2023. ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.23310368.v1>

²⁹ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). Replacing advice provided in May 2023. ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.23310368.v1>

³⁰ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 254. Full quote: “Note that no EU MAP scenario will keep the stock above $B_{trigger}$ in 2024, and the probability of being below B_{lim} is between 31% and 29%. Even a zero catch (in 2024 will not bring the stock above B_{lim} in 2025 with 95% probability. As the EU MAP states that “Fishing opportunities shall in any event be fixed in such a way as to ensure that there is less than a 5% probability of the spawning stock biomass falling below B_{lim} ”, $F = 0$ should be considered as basis for the advice”.

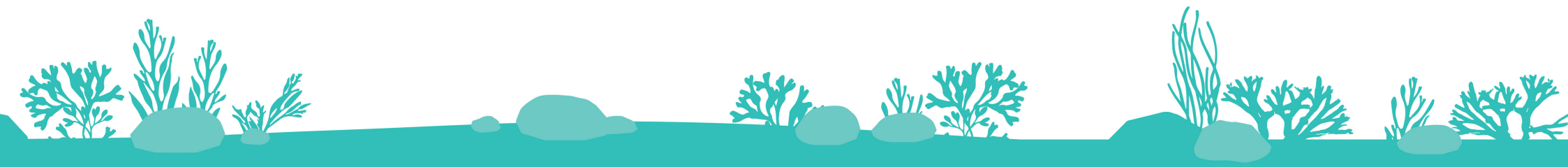
Gulf of Riga herring (SD 28.1) ³¹	45,643 t	EU MAP (F_{MSY})	35,902 t	Deduct 902 t for Gulf of Riga herring to be taken in SD 28.2 and add 2,959 t for Central Baltic herring to be taken in the Gulf of Riga (SD 28.1).	≤ 37,959 t - Consider setting the TAC within or below the lower F_{MSY} range (29,753 t - 37,969 t) in order to build ecosystem resilience by allowing the stock biomass to increase more substantially.
Gulf of Bothnia herring (SDs 30-31) ³²	80,047 t	EU MAP (F_{MSY})	63,049 t	n/a	n/a - Due to the degraded state of the stock and high uncertainties we cannot provide a quantitative catch recommendation, but fishing pressure should be minimised. - While the ICES headline advice is based on $F_{MSY} \times SSB(2024)/B_{trigger}$, the ICES WGBFAS report states that "<i>F = 0 should be considered as basis for the advice</i>"³³, suggesting a zero catch. In its advice, ICES recognises that "<i>Even a zero catch in 2024 will not ensure that the probability of SSB falling below B_{lim} in 2025 will be reduced to less than 5%.</i>", as required by Article 4(6) of the Baltic MAP (see ICES 2023)³⁴. Any higher TAC would therefore not be in line with the Baltic MAP. If however, a non-zero TAC is nonetheless adopted, this should be limited to a small allowance reserved exclusively for low-impact coastal fishers. - Urgently request scientific advice on spatial and temporal measures.

³¹ ICES, 2023. Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.28. <https://doi.org/10.17895/ices.advice.21820512>

³² ICES, 2023. Herring (*Clupea harengus*) in subdivisions 30 and 31 (Gulf of Bothnia). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.3031. <https://doi.org/10.17895/ices.advice.21820521>

³³ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>

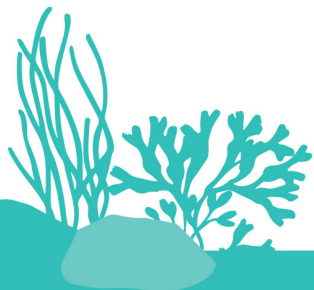
³⁴ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>



Baltic sprat (SDs 22-32)³⁵	224,114 t	EU MAP (F_{MSY})	241,604 t	Deduct 10.08 % Russian share	n/a - Due to the mixing with the degraded herring stocks in the central Baltic we cannot provide a quantitative catch recommendation, but the TAC should be set below the lower end of the F_{MSY} range. Considering the mixed fisheries of sprat and herring the TAC for sprat should be set lower than $F_{MSY\text{ lower}}$ ($\leq 171,815$ t). Our recommendation is also based on F being above F_{MSY}, misreporting issues and information that the two most recent recruitment estimates are among the lowest in the time series³⁶. - To be able to set a fixed sprat TAC, spatial management and measures to account for species interactions must be put in place (e.g. by spatial or temporal limitations). - Increase control, enforcement, onboard monitoring and sampling of landings to ensure that the widespread misreporting of sprat as herring does not continue. - Take into account that the uncertainties regarding the Russian share have further increased, as no information on catches for 2022 was officially reported to ICES.
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³⁵ ICES, 2023. Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22-32. <https://doi.org/10.17895/ices.advice.21820581>

³⁶ ICES, 2023. Sprat (*Sprattus sprattus*) in subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22-32. <https://doi.org/10.17895/ices.advice.21820581>



Baltic plaice (SDs 22-32) ^{37 38}	11,313 t	Plaice SDs 21-23: MSY approach Plaice SDs 24-32: MSY approach	17,254 t 4,481 t	Deduct estimated catches in SD 21. Apply the same method as detailed in the ICES advice. ³⁹	Prioritise protection and recovery of both Baltic cod stocks by setting plaice TAC well below single-stock headline advice and in no event allowing the fishing level to increase ($\leq 7,727$ t)⁴⁰ - Set the plaice TAC well below the single-stock headline advice to safeguard and help recover eastern and western Baltic cod, which are taken as bycatch in the flatfish fisheries. The plaice advice does not reflect the impact on cod bycatch. Given the dire state of both Baltic cod stocks, the large increase in the single-stock headline advice for plaice must therefore not be taken. At the very least, the fishing level must not increase, i.e. the plaice TAC must not exceed the $F=F_{2023}$ scenario ($\leq 7,727$ t),⁴¹ but in order to minimise the bycatch impact on cod it should be set even lower. In order to inform the setting of a plaice-TAC going forward that does not jeopardise the recovery of the depleted cod stocks, ICES should be requested to provide the relevant mixed fisheries considerations. - Consider a spatial closure for vessels operating with bottom towed gear in SDs 22, 24, 25 and 26 where eastern Baltic cod is most abundant to avoid bycatch of the stock, for which a zero TAC is recommended.⁴² - Install mandatory REM on all vessels in the targeted flatfish fishery because of the high volumes of cod bycatches. - The most selective fishing gears (both existing and new) designed for flatfish must be tested and used to avoid cod bycatch in the flatfish fisheries,^{43,44,45} and access to the plaice TAC must be conditional on the use of such gear.
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³⁷ ICES, 2023. Plaice (*Pleuronectes platessa*) in subdivisions 24-32 (Baltic Sea, excluding the Sound and Belt Seas). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, ple.27.24-32. <https://doi.org/10.17895/ices.advice.21820539>

³⁸ ICES, 2023. Plaice (*Pleuronectes platessa*) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, ple.27.21-23. <https://doi.org/10.17895/ices.advice.21820533>

³⁹ ICES, 2023. Plaice (*Pleuronectes platessa*) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, ple.27.21-23. <https://doi.org/10.17895/ices.advice.21820533>. See-Table 4.

⁴⁰ The $F=F_{2023}$ scenario for plaice in SD 24-32 is 728 t (ICES 2023. Plaice (*Pleuronectes platessa*) in subdivisions 24-32 (Baltic Sea, excluding the Sound and Belt Seas). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820539.v1>, Table 2) and for plaice SD 21-23 it is 8973 t (ICES 2023. Plaice (*Pleuronectes platessa*) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820533.v1>, Table 2). The catch in SD 21 needs to be removed, and based on Table 4 this constitutes a 22% share of the catch in SD 21-23, corresponding to $8973 \text{ t} \times 0.22 = 1974 \text{ t}$. This means the corresponding catch for the $F=F_{2023}$ scenario for plaice in SD 22-32 is $728 \text{ t} + (8973 \text{ t} - 1974 \text{ t}) = 7727 \text{ t}$. This refers to keeping F for plaice at the same level as in 2023, and must not be exceeded in order not to increase the pressure on cod. In order to decrease the pressure on cod, the plaice TAC would have to be set substantially below his level.

⁴¹ ICES, 2023. Plaice (*Pleuronectes platessa*) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820533.v1>

⁴² ICES, 2020. Report on eastern Baltic cod bycatch in non-targeted fisheries, mixing with western Baltic cod in SD24, and stock situation in SDs 27-32 (Ad hoc). ICES Scientific Reports. 1:76. 69 pp.

⁴³ ICES, 2019. EU request for further information on the distribution and unavoidable bycatches of eastern Baltic cod. In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, sr.2019.24.

⁴⁴ ICES, 2020. Report on eastern Baltic cod bycatch in non-targeted fisheries, mixing with western Baltic cod in SD24, and stock situation in SDs 27-32 (Ad hoc). ICES Scientific Reports. 1:76. 69 pp.

⁴⁵ ICES states in the advice for plaice in subdivisions 21-23 that "There are gears available that successfully reduce cod bycatches in the flatfish fisheries; however, these gears are not currently in use. Reducing the bycatch of cod in flatfish fisheries may enhance the recovery of the cod stocks." (ICES 2023. Plaice (*Pleuronectes platessa*) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820533.v1>).

Main Basin salmon 22-31 ⁴⁶	63,811 salmon	MSY approach	0 for mixed stock fisheries at sea 0 for wild salmon in weak rivers in AU 5 & Ljungan in AU 3 If spatial management is used, then ≤ 60,000 salmon can be taken in the Bothnian Bay (both commercial and recreational)	59,040 salmon Deduct 1.9% Russian share	0 in mixed stock fisheries at sea (22-30) ≤ 60,000 salmon in total catches recreational and commercial combined (see details below)⁴⁷ - Targeted fishing for salmon with mixed stock origin in the main basin areas 22-30 should be kept closed (commercial and recreational). - TAC should be set at no more than 56,640 salmon, and active and targeted salmon fishing can only take place in Bothnian Bay area 31 within four nautical miles from the coast.⁴⁸ - The current approach of setting TACs on an annual basis and including technical measures in the TAC Regulation does not deliver sustainable long-term management of the stocks. Therefore, a holistic management approach, covering TAC-setting as well as relevant technical measures, should be developed as part of a comprehensive new multiannual management plan.
Gulf of Finland salmon (SD 32) ⁴⁹	9,455 salmon	Precautionary Approach	10,100 salmon	Apply the 86% of reported landings⁵⁰ Deduct 9.3% Russian share	≤ 9,160 salmon - No wild salmon should be targeted in the Gulf of Finland (GoF). Salmon in the GoF can be targeted only by fishing gear that is proven to do no harm to released wild salmon bycatch. - Salmon from GoF mix with main basin salmon stocks at sea. The mixed stock sea fishery must be stopped to safeguard the GoF stocks. - The current approach of setting TACs on an annual basis and including technical measures in the TAC Regulation does not deliver sustainable long-term management of the stocks. Therefore, a holistic management approach, covering TAC-setting as well as relevant technical measures, should be developed as part of a comprehensive new multiannual management plan.

Note: Pending a formal sharing agreement between the EU and Russia, the assumed Russian shares are those used under the former International Baltic Sea Fisheries Commission (IBSFC).

⁴⁶ ICES, 2023. Atlantic salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.22-31 <https://doi.org/10.17895/ices.advice.21820596>

⁴⁷ ICES, 2023. Atlantic salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.22-31 <https://doi.org/10.17895/ices.advice.21820596>
ICES headline advice and scenario 14, Table 2 p.9

⁴⁸ 60,000 salmon minus the Russian share and deducting the known recreational fishing in area 31 (ibid., Table 12)

⁴⁹ ICES, 2023. Atlantic salmon (*Salmo salar*) in Subdivision 32 (Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.32, <https://doi.org/10.17895/ices.advice.21820602>

⁵⁰ ICES, 2023. Atlantic salmon (*Salmo salar*) in Subdivision 32 (Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.32, <https://doi.org/10.17895/ices.advice.21820602>, Page 4-5, Issues relevant for the catch advice

3. RECOMMENDATIONS ON BALTIC SEA TACS AND ADDITIONAL MEASURES FOR 2024

Eastern Baltic cod in SDs 25-32



We recommend that the TAC for 2024 should be set at zero both in subdivisions (SDs) 25-32 and in SD 24 based on the ICES advice for 2024, which states that “ICES advises that when the precautionary approach is applied, there should be zero catch in 2024. This advice applies to all catches from the stock in subdivisions 24–32”.⁵¹

As Baltic cod is a top predator and important to the entire Baltic Sea ecosystem, we recommend developing an ecosystem-based restoration plan to bring Baltic cod back to good environmental status in line with EU marine legislation and the EU 2030 biodiversity strategy⁵², taking into account interspecies considerations and all threats to the stock, including eutrophication, pollution, climate change, habitat loss as well as the general state of the Baltic Sea ecosystem⁵³. In the new advice, conservation measures are stated for the first time: “ICES advises that eastern Baltic cod conservation should be considered within the context of degradation of ecosystem status, resulting from cumulative anthropogenic pressures and climate change. Habitat restoration efforts, with a focus on reducing eutrophication to improve bottom oxygen content, are recommended”⁵⁴.

For 2021 the Council agreed to the Commission proposal for a reduced ‘bycatch TAC’ and the continued suspension of certain targeted fishing activities for eastern Baltic cod, as well as further recreational fishing and spatial measures⁵⁵. Nevertheless, catches of eastern Baltic cod in non-directed fisheries, combined with a lack of adequate at-sea catch monitoring to ensure effective control, enforcement, and compliance with ‘bycatch TACs’ remain a serious concern. Previous NGO communications have recommended prerequisites for the use of bycatch TACs, such as remote electronic monitoring on high risk vessels⁵⁶. These conditionalities have not been put in place in the case of eastern Baltic cod.

Importantly, the ICES advice for 2024 states “At the current low productivity, the stock is estimated to remain below B_{lim} in the medium term, even with no fishing. Furthermore, fishing at any level will target the remaining few commercial-sized (≥ 35 cm) cod; this will deteriorate the stock structure further and reduce its reproductive potential.”⁵⁷ This means that any bycatches of eastern Baltic cod are a detriment to the stock. We are concerned about the higher volumes of cod bycatch in the trawl (active demersal) fishery⁵⁸, as well as the uncertainty surrounding the extent of continued discarding, as noted by the ICES expert group on Baltic Sea Fisheries (WGBFAS): “it would be important to investigate the extent of discarding of cod in the demersal fishery for flatfishes that is still carried out by a few countries”⁵⁹.

ICES expresses concern regarding the bycatch rate and stresses that the cod is no longer a target

⁵¹ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.24–32. <https://doi.org/10.17895/ices.advice.21820497>

⁵² COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. EU Biodiversity Strategy for 2030 Bringing nature back into our lives.

⁵³ HELCOM (2018): State of the Baltic Sea – Second HELCOM holistic assessment 2011-2016. Baltic Sea Environment Proceedings 155.

⁵⁴ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.24–32. <https://doi.org/10.17895/ices.advice.21820497>

⁵⁵ Council Regulation (EU) 2022/2090 of 27 October 2022 fixing the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea for 2023 and amending Regulation (EU) 2022/109 as regards certain fishing opportunities in other waters

⁵⁶ Joint NGO paper (2019). Recovering fish stocks and fully implementing the Landing Obligation. See pages 5-6.

⁵⁷ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.24–32. <https://doi.org/10.17895/ices.advice.21820497>

⁵⁸ ICES, 2019. EU request for further information on the distribution and unavoidable bycatches of eastern Baltic cod. In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, sr.2019.24

⁵⁹ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 253, 25

species but caught in the flatfish fisheries, where the best gears available to reduce cod bycatch are not in use⁶⁰. This is particularly concerning given the increase in the ICES single-stock advice for plaice. It is therefore of critical importance that the best available gears should be immediately mandated in all flatfish fisheries with the risk of cod bycatch, and that the plaice TAC is set well below the single-stock advice in order to prioritise cod protection and recovery.

To recover and safeguard Baltic fish stocks, including eastern Baltic cod, setting a zero-TAC must be combined with additional conservation measures.

If the Commission and Council decide to continue the measures agreed by the Council for eastern Baltic cod for 2023⁶¹, then we strongly recommend the following additional measures for 2024:

- Mandate the use of REM on vessels using active gears in all areas, combined with traditional controls;
- Mandate the use of more selective fishing gears to avoid cod bycatch in the flatfish fishery^{62 63}
- Ensure that any exemptions from the LO are subject to increased at-sea monitoring and control;
- Introduce a spatial closure to cover all spawning areas in SD 25 and additionally a spatial closure of demersal towed gear in SD 26⁶⁴, which would have limited implications for EU flatfish fisheries, while protecting a substantial part of the eastern Baltic cod stock⁶⁵.

TAC-setting needs to implement an ecosystem-based approach to fisheries management as required by the CFP. Prioritisation of interspecies and food web considerations are key to achieving GES as required by MSFD.

In addition, we urge you to:

- Consider the implications for cod when setting the TAC for plaice and the time and area plaice is fished⁶⁶ (see recommendation below);
- Prioritise the need to safeguard cod when setting the central Baltic herring and sprat TACs, as ICES (and others) note that a shortage of fish prey affects the low growth and poor condition of the cod;⁶⁷

Implement Article 17 of the CFP and prioritise access to quota of other healthy stocks to vessels operating with low impact static gears that have a lower cod bycatch rate.

⁶⁰ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.24–32. <https://doi.org/10.17895/ices.advice.21820497>

⁶¹ Council Regulation (EU) 2022/2090 of 27 October 2022 fixing the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea for 2023 and amending Regulation (EU) 2022/109 as regards certain fishing opportunities in other waters

⁶² ICES, 2019. EU request for further information on the distribution and unavoidable bycatches of eastern Baltic cod. In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, sr.2019.24

⁶³ ICES, 2020. Report on eastern Baltic cod bycatch in non-targeted fisheries, mixing with western Baltic cod in SD24, and stock situation in SDs 27-32 (Ad hoc). ICES Scientific Reports, 1:76. 69 pp.

⁶⁴ ICES, 2018. Request by Poland to review the effectiveness of current conservation measures in place for the Baltic cod.

⁶⁵ ICES, 2019. EU request for further information on the distribution and unavoidable bycatches of eastern Baltic cod. In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, sr.2019.24

⁶⁶ ICES, 2020. Report on eastern Baltic cod bycatch in non-targeted fisheries, mixing with western Baltic cod in SD24, and stock situation in SDs 27-32 (Ad hoc). ICES Scientific Reports, 1:76. 69 pp.

⁶⁷ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.24–32. <https://doi.org/10.17895/ices.advice.21820497>.



N/A - Due to the degraded state of the stock and high uncertainties we cannot provide a quantitative catch recommendation, but commercial targeted fisheries on western Baltic cod should remain closed, and all recreational fishing should be prohibited.

Due to the dire state of the western Baltic cod, we recommend that all commercial and recreational fisheries targeting western Baltic cod are closed. The ICES advice shows that Western Baltic cod has been below B_{lim} since 2016, with a declining SSB trend, and notes a *"high unaccounted natural mortality that cannot be quantified"*, as well as a *"decrease in body condition"* due to environmental factors. In line with the precautionary and ecosystem-based approaches and the MAP's requirement to keep the risk of the stock falling/remaining below B_{lim} below 5%, the fishery should therefore remain closed while any bycatch must be minimised, in order to maximise the recovery potential and to build stock resilience in the face of additional pressures.

The SSB of the western Baltic cod is well below B_{lim} and the SSB index shows a decreasing trend, whereas *"ICES advises that when the precautionary approach is applied, catches should be no more than 24 tonnes in each of the years 2024 and 2025. This applies to the sum of the commercial and recreational catches."*⁶⁸ Like eastern Baltic cod, the western Baltic cod has moved from a targeted fishery to a bycatch species in the flatfish fishery⁶⁹. As for the eastern Baltic cod, the ICES advice stresses the need of improving the Baltic Sea environment: *"ICES advises that western Baltic cod conservation should be considered within the context of degradation of ecosystem status resulting from cumulative anthropogenic pressures and climate change. Habitat restoration efforts, focusing on the reduction of eutrophication to improve bottom oxygen content, are recommended."*⁷⁰

According to ICES, in 2022 recreational fisheries constituted 68% of all cod catches⁷¹. We recommend that all recreational fishing targeting western Baltic cod must be prohibited. Additional measures should be adopted, such as mandatory catch and release rules for anglers. Gear restrictions (e.g. mesh size) for recreational fishing using gillnets, should be adopted in order to avoid bycatch. Additional measures, such as closures where there is a risk of cod catches by recreational fisheries should be considered.

All spawning areas must continue to be fully protected and closed from fishing activities in the relevant spawning period. Scientific research indicates that spawning can be affected by seasonally variable hydrographical conditions, such as temperature, salinity and oxygen. Seasonal differences can lead to a progressive spawning. Due to the dire state of the stock, we strongly recommend to take a precautionary approach and thereby to extend the closure period so it includes the time when the western Baltic cod aggregate before they spawn and to take into account any seasonal differences. The closure must apply to both commercial and recreational fishers.⁷²

SD 23 (the Sound between DK and SE) is the only area with any decent cod population and is therefore considered as the last refuge of cod in the Baltic Sea. Incidentally, it is the only area that is not fished by trawlers. A transitional plan to phase out bottom trawling in the Baltic Sea must be adopted in order to rebuild the cod populations, restore the health of the whole ecosystem, and secure a viable future for fishers. We suggest to begin with introducing a permanent trawl free area in ICES SD 22, a key essential habitat area for both juvenile and adult cod,⁷³ as from 1 January 2024.

⁶⁸ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 22–24, western Baltic stock (western Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.22–24. <https://doi.org/10.17895/ices.advice.21820494>

⁶⁹ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.23123768.v1>

⁷⁰ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 22–24, western Baltic stock (western Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.22–24. <https://doi.org/10.17895/ices.advice.21820494>

⁷¹ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 22–24, western Baltic stock (western Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.22–24. <https://doi.org/10.17895/ices.advice.21820494>

⁷² Essential fish habitats in the Baltic Sea – Identification of potential spawning, recruitment and nursery areas. HELCOM (2021) <https://helcom.fi/wp-content/uploads/2021/09/Essential-fish-habitats-in-the-Baltic-Sea.pdf> and Støttrup, J. G., Kokkalis, A., Brown, E. J., Vastenhoud, B., Ferreira, S., Olsen, J., & Dinesen, G. E. (2019). Essential Fish Habitats for commercially important marine species in the inner Danish waters. Technical University of Denmark. DTU Aqua-rapport No. 338-2019 <https://orbit.dtu.dk/en/publications/essential-fish-habitats-for-commercially-important-marine-species>

⁷³ Støttrup et al. 2019 Essential Fish Habitats for commercially important marine species in the inner Danish waters, DTU Aqua.



We recommend that the TAC for 2024 should be zero. The previous five years in a row ICES has advised a zero-catch based on the MSY approach⁷⁴.

On a general note, we recommend adjusting the TAC-setting procedure for both North Sea Autumn Spawners (NSAS) and WBSS herring in a way that minimizes catches of the WBSS stock.

ICES advice on the North Sea herring specifically calls in its headline advice on fishing opportunities that: *"Catches of Western Baltic Spring-Spawning (WBSS) herring in the fishery for North Sea autumn-spawning herring in the east of 4.a and 4.b should be kept as low as possible."* In addition ICES explains in the *"Issues relevant for the advice"* chapter that: *"Catches of WBSS herring in eastern parts of 4a and 4b requires new management measures. ICES advises zero catches for WBSS herring"*⁷⁵.

The SSB of the WBSS herring stock has been below B_{lim} since 2007. There has been no strong recruitment since 2013. There are no catch scenarios that will rebuild the stock above B_{lim} by 2026⁷⁶.

According to Article 5 of the Baltic Sea MAP, further remedial measures including the suspension of fishing activity shall be taken to ensure a rapid return of the stock concerned above the level capable of producing MSY, when scientific advice indicates that the spawning stock biomass is below B_{lim} , which is the case for WBSS herring. In the ICES advice sheet for the Western Baltic herring, under conservation aspects, it is stated that *"ICES advises that measures to protect and restore known spawning habitats and nursery areas are needed."*⁷⁷

In the advice sheet, under *Issues relevant for the advice* it is stated that *"This stock is caught across three different management areas (Figure 3), and recovery will be impaired if catches of this stock are not minimized in all areas. Based on agreed catches for 2023 and assumptions on stock mixing, it is predicted that around 79% of the total WBSS catches in 2023 will be taken in the eastern parts of divisions 4.a and 4.b. The remaining 21% is assumed to be shared between the two management areas, subdivisions 20–21 and subdivisions 22–24."*

*The catch of WBSS in the North Sea in recent years has been substantial (estimated at 5,236 t, based on the average over the 2020–2022 period). The catches of WBSS in 2023 are expected to continue to be larger in the North Sea than in subdivisions 20–24. Without additional area and seasonal restrictions on herring fishery in the North Sea in 2024, catches of WBSS in the North Sea will be unavoidable, delaying the recovery of the WBSS stock."*⁷⁸.

We therefore recommend, in accordance with ICES advice, that additional area and/or time restrictions on the herring fishery are considered in the North Sea and in SDs 20-21.

⁷⁴ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.20-24. <https://doi.org/10.17895/ices.advice.21907944>

⁷⁵ ICES, 2023. Herring (*Clupea harengus*) in Subarea 4 and divisions 3.a and 7.d, autumn spawners (North Sea, Skagerrak and Kattegat, eastern English Channel). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.3a47d. <https://doi.org/10.17895/ices.advice.21907947>

⁷⁶ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.20-24. <https://doi.org/10.17895/ices.advice.21907944>

⁷⁷ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.20-24. <https://doi.org/10.17895/ices.advice.21907944>

⁷⁸ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 20–24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.20-24. <https://doi.org/10.17895/ices.advice.21907944>

Central Baltic Sea (excluding Gulf of Riga) herring in SDs 25-29 & 32



N/A - due to the degraded state of the stock and high uncertainties we cannot provide a quantitative catch recommendation, but fishing pressure should be minimised.

In the current state of the degraded Baltic Sea ecosystem and depleted fish stocks, taking all uncertainties into consideration regarding the Central Baltic herring, it is clear that the fishing pressure must be reduced substantially. In its advice, ICES recognises that *“Even a zero catch in 2024 will not bring the stock above B_{lim} in 2025 with 95%.”*, as required by Article 4(6) of the Baltic MAP (see ICES 2023).⁷⁹ Any higher TAC would therefore not be in line with the Baltic MAP. If however a non-zero TAC is nonetheless adopted, this should be limited to a small allowance reserved exclusively for small-scale coastal fishers catching herring for direct human consumption.

We have concerns about the following aspects which justify a more precautionary approach:

- The dire state of the stock (below B_{lim} since 2020 and projected to remain there) and the Baltic ecosystem
- Subpopulations and the risk of genetic depletion
- Misreporting and risk posed by the margin of tolerance
- Russian outtakes of central Baltic herring
- Multispecies considerations and the mixing with the sprat fishery
- The Baltic MAP requires fishing opportunities to be set in a way that keeps the risk of the stock falling below B_{lim} below 5%, and any non-zero TAC is contrary to that.

The dire state of the stock and the Baltic ecosystem

There has been no strong recruitment since 2014, and the SSB has been below $MSY B_{trigger}$ since 1985 and below B_{lim} since 2020⁸⁰. From a biological perspective, the stock is in a dire state, much like the Baltic Sea ecosystem as a whole, and in order to build resilience in the face of other pressures such as climate change, impacts from fishing should be minimised. In addition, according to the recent ICES Ecosystem Overview for the Baltic Sea ecoregion *“Many species and habitats of the Baltic Sea are not in good condition, according to recent assessments. This affects foodweb functionality, reduces the resilience and resistance against further environmental changes, and diminishes prospects for socioeconomic benefits, including fishing opportunities”*⁸¹.

Subpopulations and the risk of genetic depletion

The Central Baltic herring stock consists of several genetic spawning components which differ in migration routes, growth and maturity, making it vulnerable to loss of genetic diversity. ICES underlines the importance of developing a framework integrating these components, including a survey on the mix of WBSSH⁸². Furthermore, the ICES advice clearly states: *“The current advice does not account for differences in the productivity of the various stock components.”*⁸³ In light of the sub-populations and genetic diversity of herring, as highlighted by the scientific community, we emphasise the need of these components to be reflected in the advice.

⁷⁹ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.23310368>.

⁸⁰ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 253, 262.

⁸¹ ICES, 2020. Baltic Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, EcosystemOverview_Baltic-Sea_2020. <https://doi.org/10.17895/ices.advice.7635> p 3.

⁸² ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 253,

⁸³ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.25–2932. <https://doi.org/10.17895/ices.advice.21820506>

Russian outtakes of central Baltic herring

The Central Baltic herring stock is shared between the EU and the Russian Federation, which has no management plan for the stock and “*No information on Russian Federation catches for 2022 was officially reported to ICES*”. Under catch scenarios in Table 1 it is stated a quota for the Russian Federation is 27,000 tonnes, i.e. ca 25% of the total catch in 2023.⁸⁴ It is clear that the Russian share is substantial and this adds to the pressure on the stock. This implies that a large proportion of this stock is extracted elsewhere, and therefore, if a non-zero TAC is set at the EU level this must adhere to these shares and at least be decreased to match this outtake.

Margin of tolerance

Article 13 of the Baltic MAP provides for a “*margin of tolerance in estimates recorded in the fishing logbook of quantities in kilograms of fish retained on board*” of 10% of the total quantity retained on board. This could correspond to a large amount of additional herring if Member States’ control and catch registration systems are not effective, and thus further adds to the uncertainty of the actual catches and ultimately the stock status. This risk could be reflected by setting TACs at more precautionary, i.e. lower levels, while weighing of the catch should in any case be done properly at landing stage in order to get more reliable estimates.

Misreporting

Since sprat and herring are caught in a mixed pelagic fishery there are uncertainties of catch levels, where misreportings of sprat and herring occur. There is evidence that this is still an ongoing problem, but it is not part of the assessment, and the advice sheet highlights that “*These effects have been neither quantified nor included in the assessment due to lack of access to representative data*”⁸⁵. Similarly, the WGBFA noted that “*Significant misreporting can potentially be a large problem with regard to our perception of these stocks.*”⁸⁶

Multispecies management

There is a lack of multispecies and mixed fishery considerations in the Baltic Sea fisheries management, for example, considering the role of herring and sprat as food for cod and other predators, and also regarding the mixed landings of herring and sprat. The proportion of herring and sprat in landings varies in SDs and Quarters, but the average landing consists of 40.64% herring and 59.36% sprat, whereas only in SD 30 and 31 the landings almost entirely consist of herring with no sprat⁸⁷. This implies that a high sprat quota will risk catching too much herring and the problem only increases when one TAC is going down and one stays high, meaning that the sprat TAC should be guided by the herring situation, i.e. be set well below the headline advice for sprat, most likely below the F_{MSY} lower (see more details on this under the sprat section).

A non-zero TAC is contrary to Article 4(6) of the Baltic MAP⁸⁸

Under *Issues relevant for the advice* ICES clearly states that “*The EU MAP states, “Fishing opportunities shall in any event be fixed in such a way as to ensure that there is less than a 5% probability of the spawning stock*

⁸⁴ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.25–2932. <https://doi.org/10.17895/ices.advice.21820506>

⁸⁵ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.25–2932. <https://doi.org/10.17895/ices.advice.21820506>

⁸⁶ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 253

⁸⁷ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 240 table 4.1.1.

⁸⁸ Consolidated text: Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02016R1139-20201201>

biomass falling below B_{lim} . Even a zero catch in 2024 will not bring the stock above B_{lim} in 2025 with 95% probability.”⁸⁹ Furthermore, the Expert Group WGBFAS who provides the data and decision basis for the stock advice express concern and suggests that “*F = 0 should be considered as basis for the advice*”⁹⁰. In essence, given the dire state of the stock and the overall Baltic Sea ecosystem, and in light of the above, fishing pressure should be minimised to let the stock regenerate and to build resilience in the face of other pressures such as climate change.

To sum up, the cumulative effects of all uncertainties and sources of risk listed above calls for much concern and precaution regarding the fishing opportunities. If a non-zero TAC is set it should be reserved exclusively for small-scale, low impact, coastal fishers catching herring for direct human consumption, in accordance with Article 17 of the CFP. We stress the need for Member States to improve control, enforcement, onboard monitoring and sampling of landings to put an end to the misreporting of sprat as herring.

Gulf of Riga herring in SD 28.1



We recommend that the TAC for 2024 should not exceed 37,959 tonnes. This is based on the ICES advice of F_{MSY} (35,902 t)⁹¹, from which we deduct 902 tonnes for Gulf of Riga herring taken in SD 28.2 and add 2,959 tonnes for Central Baltic herring taken in the Gulf of Riga (28.1).

Gulf of Bothnia herring in SDs 30-31



N/A - due to the degraded state of the stock and high uncertainties we cannot provide a quantitative catch recommendation, but fishing pressure should be minimised.

The SSB of the Bothnian herring is at its lowest ever in the time series, almost below B_{lim} . The amount of large herring has decreased dramatically. According to ICES in 2021 the body condition of the larger herring was at a record low and, according to the *Quality of the assessment* section “*The reasons for the decline in weight-at-age are not understood and it is partially accounted for in the forecast*”⁹².

A fisheries closure should be considered in light of the dire situation of this stock and the need to build resilience towards other pressures such as climate change. However, due to socio-economic considerations we acknowledge the challenge this would pose for low impact coastal community fishing, which is far less likely to damage the ecosystem or deplete the stock than larger scale industrial fishing. If a non-zero TAC is set, this should therefore be limited to an allowance reserved exclusively for low impact coastal fishers.

We would like to highlight concerns related to the following aspects:

- The Baltic MAP
- Decreased weight-at-age of the larger herring and a shortage of large herring

⁸⁹ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 25–29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.25–2932. <https://doi.org/10.17895/ices.advice.21820506>

⁹⁰ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 254. Full quote: “*Note that no EU MAP scenario will keep the stock above $B_{trigger}$ in 2024, and the probability of being below B_{lim} is between 31% and 29%. Even a zero catch (in 2024 will not bring the stock above B_{lim} in 2025 with 95% probability. As the EU MAP states that “Fishing opportunities shall in any event be fixed in such a way as to ensure that there is less than a 5% probability of the spawning stock biomass falling below B_{lim} ”, $F = 0$ should be considered as basis for the advice*”.

⁹¹ ICES, 2023. Herring (*Clupea harengus*) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.28. <https://doi.org/10.17895/ices.advice.21820512>

⁹² ICES, 2023. Herring (*Clupea harengus*) in subdivisions 30 and 31 (Gulf of Bothnia). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.3031. <https://doi.org/10.17895/ices.advice.21820521>

- Uncertainty of stock status in SD 31 due to missing of acoustic surveys

A non-zero TAC is contrary to Article 4(6) of the Baltic MAP

Under *Issues relevant for the advice* ICES recognises that “The EU MAP states that “Fishing opportunities shall in any event be fixed in such a way as to ensure that there is less than a 5% probability of the spawning stock biomass falling below B_{lim} . Even a zero catch in 2024 will not ensure that the probability of SSB falling below B_{lim} in 2025 will be reduced to less than 5%.”⁹³ Any higher TAC would therefore not be in line with Article 4(6) of the Baltic MAP. Furthermore, the expert group WGBFAS expressed that due to this, a zero catch advice should be considered; “ $F = 0$ should be considered as basis for the advice”.⁹⁴

Decreased weight-at-age of the larger herring and a shortage of large herring

The SSB has been on a steady decline since the early 2010s and is now very close to falling below B_{lim} . It is likely that the decrease in SSB is related both to the increased fishing mortality and to the decreased weight-at-age of the larger herring in particular. The decrease of SSB, which started in 2020 and continued in 2021 and 2022, is presumed to be largely a consequence of a change in the food web, which caused a remarkable decrease in weight at age and deteriorated body condition especially in larger herring. During the winter of 2022 and 2023, the condition of herring recovered to long term levels of the 2010s, but the proportion of larger herring had decreased from the levels that were found before 2020. The ICES advice itself confirms that “Body condition of larger herring was at a record low in 2021. In combination with the lower proportion of older herring in the stock, this will likely result in continued low catch rates for larger herring.”⁹⁵

Based on all of the above, and in order to allow the stock to recover and to improve resilience of the stock and ultimately the overall ecosystem, fishing pressure should be minimised, and any potential non-zero catch allowance should be reserved for low impact coastal fishing.

In addition, we recommend that the European Commission requests scientific advice on spatial and temporal measures.

Baltic Sea sprat in SDs 22-32



N/A - Due to the mixing of sprat with the degraded herring stocks in the central Baltic we cannot provide a quantitative catch recommendation, but the TAC should be set below the lower end of the F_{MSY} range.

Considering the mixing of sprat with herring stocks in the Main basin (SD 25-29 & 32), the TAC for sprat should be set lower than $F_{MSY\ lower}$ ($\leq 171,815$ t). Our recommendation is also based on F being above F_{MSY} , misreporting issues and information that the two most recent recruitment estimates are among the lowest in the time series.⁹⁶ It is with noting that Article 4(4) of the Baltic MAP explicitly allows for the setting of TACs below the lower end of the F_{MSY} range.

It is well known that sprat and herring are caught together and ICES data clearly indicates the level

⁹³ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 30 and 31 (Gulf of Bothnia). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.3031. <https://doi.org/10.17895/ices.advice.21820521>

⁹⁴ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. 5:58. 606 pp. <https://doi.org/10.17895/ices.pub.23123768>, p 237. Full quote: Note that no EU MAP scenario will keep the stock above $B_{trigger}$ in 2024, and the probability of being below B_{lim} is between 26 % and 21 %. Even a zero catch (in 2024 will not bring the stock above B_{lim} in 2025 with 95% probability. As the EU MAP states that “Fishing opportunities shall in any event be fixed in such a way as to ensure that there is less than a 5% probability of the spawning stock biomass falling below B_{lim} ”, $F = 0$ should be considered as basis for the advice.

⁹⁵ ICES, 2023. Herring (*Clupea harengus*) in subdivisions 30 and 31 (Gulf of Bothnia). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, her.27.3031. <https://doi.org/10.17895/ices.advice.21820521>

⁹⁶ ICES, 2023. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. <https://doi.org/10.17895/ices.advice.21820581>

of mixing in different areas and over the year. The mixing can be up towards 60% and down towards 10% in the sprat fishery. This means that even with a herring TAC set close to zero, there will be large amounts of herring caught in the sprat fishery, unless the sprat TAC is set accordingly. The sprat management must acknowledge this, meaning that the herring TAC should determine the sprat TAC, using the available data of mixing in the landings. For example, if there is a mixing on average of 20%, a herring landing limit set at 20,000 t will determine the sprat TAC to be set no higher than 100,000 t. There may be options for managers to consider, because the mixing and total landings differs in the SDs 22-32 and it also differs depending on time of year according to the existing data. This means e.g. that setting TACs for sprat for area 25-26 and to allow the fishing to take place in Q1 and Q2 could possibly reduce the herring bycatch.⁹⁷ Therefore, the sprat TAC must likely be set much lower than the $F_{MSY\ lower}$ for the sprat stock, to take the above situation into account and safeguard herring. This recommendation implements an ecosystem-based approach to fisheries management, as required by the CFP basic regulation and the Baltic MAP itself.⁹⁸ Accounting for ecosystem functioning and interspecies considerations is a vital part of ecosystem-based fisheries management. In essence, considering a mixed fishery management where also the poor condition of cod is partly due to lack of prey fish⁹⁹, as described in the ICES Fisheries Overview of the Baltic Sea ecoregion: “*Eastern Baltic cod is a predator on herring, sprat, and juvenile cod*” and where “*increased fishing pressure on herring and sprat may have a negative impact on the condition and growth of cod (by reducing the forage available for cod) and result in lower cod yields*”¹⁰⁰. This is an additional reason for setting the Baltic sprat TAC below $F_{MSY\ lower}$.

In addition, we note that there is evidence that Baltic pelagic fisheries misreported official catches, and that sprat is even misreported as flounder.^{101 102} In the latest advice ICES states: “*Species misreporting of herring and sprat has occurred in the past, and there is evidence that this is an ongoing problem. These effects have been neither quantified nor included in the assessment due to lack of access to representative data. // Misreporting undermines the data quality used in the assessment and introduces into the assessment and advice a level of uncertainty that cannot be quantified.*”¹⁰³ This means catches of sprat might be higher than those officially reported. When data are uncertain, even more precaution is needed in fisheries management – following the precautionary approach as defined in the CFP and reiterated in the Baltic MAP. We further suggest that a significant increase in control, enforcement, onboard monitoring and sampling of landings is required to put an end to misreporting.

Moreover, according to ICES “*The two most recent recruitment estimates are among the lowest in the time series. If such poor recruitment continues, the declining trend in SSB will continue.*”¹⁰⁴

All of this calls for caution, supporting a sprat TAC set below the lower end of the F_{MSY} range.

⁹⁷ ICES, 2023. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports. Report. <https://doi.org/10.17895/ices.pub.23123768.v1> pp 239
⁹⁸ Article 2(3) of the CFP basic regulation, Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1380>. Article 3(3) of the Baltic MAP reiterates the requirement to implement an ecosystem-based approach to fisheries management, and Article 4(4) explicitly allows for fishing opportunities to be “fixed at levels that are lower than the ranges of F_{MSY} ”.

⁹⁹ ICES, 2023. Cod (*Gadus morhua*) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, cod.27.24–32. <https://doi.org/10.17895/ices.advice.21820497>

¹⁰⁰ ICES, 2022. Baltic Sea ecoregion – fisheries overview. ICES Advice: Fisheries Overviews. Report. <https://doi.org/10.17895/ices.advice.21646934.v2>

¹⁰¹ ICES, 2023. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. <https://doi.org/10.17895/ices.advice.21820581>

¹⁰² <https://www.fishsec.org/2019/09/17/pelagic-trawlers-report-false-catch-figures-and-undermine-sustainable-management/>

¹⁰³ ICES, 2023. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. <https://doi.org/10.17895/ices.advice.21820581>

¹⁰⁴ ICES, 2023. Sprat (*Sprattus sprattus*) in subdivisions 22–32 (Baltic Sea). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, spr.27.22–32. <https://doi.org/10.17895/ices.advice.21820581>



We recommend prioritising the protection and recovery of both Baltic cod stocks by setting the plaice TAC for 2024 well below the single-stock headline advice and not allowing the fishing level to increase ($\leq 7,727$ tonnes)¹⁰⁵ compared to 2023.

The single-stock advice for plaice does not reflect the impact on cod bycatch. Given the dire state of both Baltic cod stocks, the large increase in the single-stock headline advice for plaice must therefore not be taken. At the very least, the fishing level must not increase, i.e. the plaice TAC must not exceed the $F=F_{2023}$ scenario ($\leq 7,727$ t),¹⁰⁶ but in order to minimise the bycatch impact on cod it should be set even lower. In order to inform the setting of a plaice TAC going forward that does not jeopardise the recovery of the depleted cod stocks, ICES should be requested to provide the relevant mixed fisheries considerations.

We note the likelihood of significant bycatch of eastern Baltic cod when catching plaice in SDs 24-26.¹⁰⁷ The setting of the plaice TAC needs to be carefully considered in the context of conservation measures and a rebuilding plan for eastern Baltic cod, including mandating more selective fishing gears to avoid cod bycatch (see ICES^{108,109}), as well as spatial closures of SDs 24 and 26.

The ICES report states that *"cod and flounder overlap in the entire distribution area of the eastern Baltic cod stock; plaice and eastern Baltic cod overlap in subdivisions 24-25. Therefore, there are no areas or months where flatfish fisheries with non-selective gears could be conducted in subdivisions 24-26 without a risk of bycatch of cod. Only a small fraction of EU flatfish landings were taken in subdivision 26 in later years (6% of flounder landings in 2018). Therefore, a potential closure of subdivision 26 for demersal fisheries would have limited implications for EU flatfish fisheries, while protecting a substantial part of the eastern Baltic cod stock."*¹¹⁰

Considering the high level of illegal discarding of cod in the flatfish fishery, we urge Member States to install mandatory REM on all vessels in the targeted flatfish fishery with new trawl designs. Pilot projects with REM¹¹¹ have shown a significant reduction in illegal discarding, as well as a change in fishing practices which led to reduced bycatches of cod in the first place.

Furthermore, we recommend that the Commission requests the ICES Working Group on Mixed Fisheries Advice (WGMIXFISH) to prioritise the mixed demersal fishery in the Baltic Sea, where the cod, plaice and flounder stocks overlap. This will ensure the best available science in relation to setting mixed fisheries catch limits can be utilised. In this context, the Commission and the Council should ensure that the most vulnerable stocks are not overfished when proposing and setting TACs in mixed fisheries.

¹⁰⁵ The $F=F_{2023}$ scenario for plaice in SD 24-32 is 728 t (ICES 2023. Plaice (*Pleuronectes platessa*) in subdivisions 24–32 (Baltic Sea, excluding the Sound and Belt Seas). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820539.v1>, Table 2) and for plaice SD 21-23 it is 8973 t (ICES 2023. Plaice (*Pleuronectes platessa*) in subdivisions 21–23 (Kattegat, Belt Seas, and the Sound). ICES Advice: Recurrent Advice. Report. <https://doi.org/10.17895/ices.advice.21820533.v1>, Table 2). The catch in SD 21 needs to be removed, and based on Table 4 this constitutes a 22% share of the catch in SD 21-23, corresponding to $8973 \text{ t} \times 0.22 = 1974 \text{ t}$. This means the corresponding catch for the $F=F_{2023}$ scenario for plaice in SD 22-32 is $728 \text{ t} + (8973 \text{ t} - 1974 \text{ t}) = 7727 \text{ t}$. This refers to keeping F for plaice at the same level as in 2023, and must not be exceeded in order not to increase the pressure on cod. In order to decrease the pressure on cod the plaice TAC would have to be set substantially below this level.

¹⁰⁶ Ibid.

¹⁰⁷ ICES, 2020. Report on eastern Baltic cod bycatch in non-targeted fisheries, mixing with western Baltic cod in SD24, and stock situation in SDs 27-32 (Ad hoc). ICES Scientific Reports. 1:76. 69 pp.

¹⁰⁸ ICES, 2019. EU request for further information on the distribution and unavoidable bycatches of eastern Baltic cod. In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, sr.2019.24

¹⁰⁹ ICES, 2020. Report on eastern Baltic cod bycatch in non-targeted fisheries, mixing with western Baltic cod in SD24, and stock situation in SDs 27-32 (Ad hoc). ICES Scientific Reports. 1:76. 69 pp.

¹¹⁰ ICES, 2020. Report on eastern Baltic cod bycatch in non-targeted fisheries, mixing with western Baltic cod in SD24, and stock situation in SDs 27-32 (Ad hoc). ICES Scientific Reports. 1:76. 69 pp.

¹¹¹ See for example J. Dalskov & Kindt-Larsen (2009) Final Report of Fully Documented Fishery. DTU Aqua and Danish Fisheries Agency 2021 "Electronic monitoring in the Danish Kattegat (3AS) Nephrops fishery - Evaluation on phase 1 of the project"

Baltic Sea (excluding the Gulf of Finland) salmon in SDs 22-31



We recommend that the total sea catches should not exceed 60,000 salmon in total. Considering the current fishing patterns, a TAC should therefore be set at no more than 56,640 salmon, and active and targeted salmon fishing can only take place in SD31 within four nautical miles from the coast. If no spatial management can be agreed, the sea TAC needs to be set at zero.

The salmon in the Baltic Sea does not consist of one single stock, yet it has long been managed as such. In fact, there are at least 32 wild self-reproducing stocks (several rivers are potential wild salmon rivers but the status is unknown, and/or they are currently supported by large rearing and release programmes) with a very high degree of variation. Salmon rivers differ in geographical location, size, water quality and available spawning area, among other factors. In summary, the river stocks from the northern parts of the Baltic Sea are in better condition, compared to the stocks in the mid or southern areas of the Baltic catchment. At more mature life stages, many of the salmon mix in the main basin area of the Baltic Sea to feed. Setting a “global” fishing quota on salmon represents a big problem since there is no way of setting a level of fishing that safeguards the weaker stocks in this mixed pool of salmon stocks. The salmon stocks with origins in rivers in the Gulf of Finland (GoF) also mix with the other stocks in the Main basin and the separation of management is not possible in reality.

ICES notes that there is no scope for catches in the mixed stock situation that is consistent with the MSY approach and advises that the mixed sea fishery should be closed. Catches on the coast are only possible with a strong spatial management in place, only allowing catches in SD31.

ICES presents multiple scenarios, but only some of them use the consideration of spatial management to avoid mixing (Table 2 on page 9 of the advice). One option, noted as the MSY approach, is to only allow river fishery and this option is preferable but in the short term difficult to implement and needs, for example, new technical rules/delineations of areas. ICES adds that some fisheries can still take place in certain areas. The ICES advice states: *“ICES advises that according to the MSY approach the catch of salmon in the mixed-stock at sea fisheries (both commercial and recreational in the off-shore and coastal areas) should be zero in 2024.”*¹¹² ICES adds that: *“ICES advises that there should be zero catch of wild salmon in weak rivers in AU 5 and in Ljungan in AU 3 in 2024.”*

The second option says that if spatial and temporal management is put in place ICES notes that some fishing can take place: *“ICES advises that if spatial-temporal management can be implemented, some fishing opportunities would be possible. ICES considers that if sea fishing can be confined to existing coastal fisheries during the spawning migration (beginning of May to the end of August) in the Bothnian Bay, total sea catch (both commercial and recreational) in this area of no more than 60,000 salmon could be taken.”*¹¹³

The salmon cannot be treated as one stock and management must change. ICES has noted the need to phase out the mixed sea fishery for well over ten years, thus the advice is not new and the AGRIFISH Council accepted this approach in 2021. However, the current approach of setting TACs on an annual basis and including technical measures in the TAC Regulation does not deliver sustainable long-term management of the stocks. Therefore, a holistic management approach, covering TAC-setting as well as relevant technical measures, should be developed as part of a comprehensive new multiannual management plan.

¹¹² ICES, 2023. Atlantic salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.22-31, <https://doi.org/10.17895/ices.advice.21820596>

¹¹³ ICES, 2023. Atlantic salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.22-31, <https://doi.org/10.17895/ices.advice.21820596>

Other options and longer-term considerations

- All Baltic salmon stocks need to be considered individually and any new management plan must hold this as the core scope and objective. We recommend that a new EU proposal for a multi-annual plan is developed.
- A complete closure of additional areas with weak rivers also in the northern Baltic Sea areas is needed to limit the risk to weaker rivers.
- Commercial and recreational, non-angling, fisheries must be better managed and controlled in the northern areas of the Baltic.
- Recreational angling catches in northern sea areas (excluding the Åland Sea area) are limited currently but could increase and therefore control/reporting must improve.
- River catches of all kinds must be better monitored and reported, and must have individually set limits per river.
- Rearing and releasing programs must be phased out and only used as a last resort to re-establish natural reproduction.
- Salmon management must fully include all recreational fisheries and we recommend mandatory licensing for any salmon catches regardless of whether they are taken at sea, on the coast or in rivers.

Key elements from the advice include:

- ICES advice states, in the section *Issues relevant for the advice*, that “A large part of Baltic salmon fishing at sea is mixed-stock fisheries; this presents a particular management challenge as these fisheries are more likely to pose a threat to depleted stocks than fisheries on healthy (at or above MSY) wild or reared stocks in rivers as well as in estuaries or coastal areas (e.g. < 4 nm) where healthy single-river stocks dominate. Mixed-stock fisheries that catch weak wild stocks should be avoided. Ideally, management of salmon fisheries should be based on the status of individual river stocks.”¹¹⁴
- ICES notes, in the section “Quality of the advice”, that “There is a lack of data about the amount of salmon discarded, and even less about the proportion of discarded salmon that survive. There is also little information about the amount of seal-damaged (and assumed dead) salmon. The values used in this advice represent the current available knowledge and are based on data from a variety of sources. Expert judgement has been applied where data are unavailable or sparse. Current estimates of discards are therefore uncertain and should be considered approximate.”¹¹⁵ Furthermore, it is stated that “There are also substantial uncertainties regarding the level of bycatch of salmon in fisheries targeting other species, such as the pelagic trawl fishery for herring and sprat and the coastal fishery for e.g. whitefish”.¹¹⁶ This needs to be considered when setting the TAC, as more precaution is required due to this uncertainty.

¹¹⁴ ICES, 2023. Atlantic salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.22-31, <https://doi.org/10.17895/ices.advice.21820596>

¹¹⁵ ICES, 2023. Atlantic salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.22-31, <https://doi.org/10.17895/ices.advice.21820596>

¹¹⁶ ICES, 2023. Atlantic salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.22-31, <https://doi.org/10.17895/ices.advice.21820596>

Gulf of Finland salmon in SD 32



We recommend that the TAC for 2024 should not exceed 9,204 salmon. The salmon in the GoF are dominated by released salmon and fishing on the wild salmon is not sustainable. The recommended TAC number is calculated from the ICES division of wanted reported catch and the Russian share deducted from the total. The fishery should target only reared fin-clipped salmon to keep fisheries-related mortality on wild salmon as low as possible.¹¹⁷

ICES advice states: *“ICES advises that when the precautionary approach is applied, commercial sea catches in 2024 should be no more than 11,800 salmon. This assumes that the amount of hatchery reared salmon released in 2023 does not decrease compared to previous years and that spatial and seasonal fishing patterns do not change. Applying the same catch proportions as those estimated to have occurred in 2021, this would correspond to reported commercial landings of 10,100 salmon.”*

ICES notes: *“Fisheries-related mortality on wild salmon from all wild and mixed (rivers with both hatchery-reared and wild salmon) rivers in the Gulf of Finland should be as low as possible. Salmon in the Gulf of Finland are a mix of local wild and reared populations. Measures to focus the fishing effort on reared salmon should be maintained.”*¹¹⁸

Furthermore, uncertainty is noted in the *Quality of the assessment* section of the ICES advice: *“Recreational sea and river catch statistics are uncertain.”* ICES also states: *“The PSPC estimates for Gulf of Finland stocks have been proposed based on expert opinion. No stock–recruitment data exist at the moment, precluding validation of these PSPC estimates.”*¹¹⁹

¹¹⁷ ICES, 2023. Atlantic salmon (*Salmo salar*) in Subdivision 32 (Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.32, <https://doi.org/10.17895/ices.advice.21820602>

¹¹⁸ ICES, 2023. Atlantic salmon (*Salmo salar*) in Subdivision 32 (Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.32, <https://doi.org/10.17895/ices.advice.21820602>

¹¹⁹ ICES, 2023. Atlantic salmon (*Salmo salar*) in Subdivision 32 (Gulf of Finland). In Report of the ICES Advisory Committee, 2023. ICES Advice 2023, sal.27.32, <https://doi.org/10.17895/ices.advice.21820602>

4. THE CFP'S LEGAL REQUIREMENTS FOR SETTING BALTIC SEA TACS

The annual setting of fishing opportunities is one of the most important tools for achieving the CFP objective of restoring all harvested fish populations to levels above those capable of producing MSY. The Baltic Sea MAP also provides a framework for the setting of certain Baltic Sea fishing opportunities in accordance with the targets as outlined in that plan and the objectives of the CFP. However, the legal deadline of achieving sustainable exploitation rates by 2020 has not been met for many Baltic Sea stocks.¹²⁰

i) The MSY objective

Article 2(2) of the CFP states that to restore stock biomass above levels capable of producing MSY, the Maximum Sustainable Yield exploitation rate shall be achieved for all stocks by 2020. Setting fishing limits below MSY exploitation rates (F_{MSY}) is crucial to allow fish stocks to recover above sustainable levels. For fish stocks in a very poor state, fishing mortality rates below the F_{MSY} point value can contribute to their restoration, but this alone is not enough. Effective control and monitoring together with additional measures based on the ecosystem-based approach to fisheries management such as spatial and temporal closures, considering predator-prey relationships, and transitioning to selective gears, are required.

ii) Application of the precautionary approach

The requirement to set TACs at or below MSY exploitation rates is inseparable from the precautionary approach. Article 2(2) of the CFP and Article 3(1) of the Baltic Sea MAP also require a precautionary approach (per the United Nations Fish Stocks Agreement) as a basic requirement for EU fisheries management. The current disturbed state of the Baltic Sea ecosystem is unprecedented, and climate-driven changes are making things worse. It is more important than ever to act in a precautionary manner when setting TACs, to drastically minimise pressure on biodiversity, fish populations and habitats, restore marine food web functionality, and increase the capacity of the Baltic Sea ecosystem to mitigate and adapt to climate change. The CFP basic regulation has set the precautionary approach also in the context of the EU precautionary principle (Recital 10, referring to Article 191(2)(1) of the TFEU). The Commission and Ministers must therefore implement the CFP – and interpret scientific advice – in a precautionary manner and aim to achieve a high degree of conservation.

iii) Appropriate implementation of the Baltic Sea MAP

The Baltic Sea MAP¹²¹ in its Article 3 reiterates the CFP objective, set out in Article 2(2) of the basic regulation, to end overfishing by 2020 and to restore and maintain fish stocks above levels capable of producing MSY. This is prevented if fishing pressure is above MSY, so there is subsequently no justification for using the upper fishing mortality ranges. However, the MAP gives the legal basis to act with more precaution, for example by setting TACs below the lower end of the F_{MSY} range (Article 4(4)), and set new measures, including moving a pelagic fishery and reducing catches to maximise food availability to the ecosystem, and considering the most vulnerable stock(s) when setting TACs. Provisions in the Baltic MAP have been cited as justifications to allow overfishing of Baltic stocks in the past, despite this being at odds with the CFP and the EU's wider environmental commitments.¹²²

¹²⁰ The Pew Charitable Trusts, 2020. *Analysis of Fisheries Council agreement on fishing opportunities in the Baltic Sea for 2020*

¹²¹ REGULATION (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks

¹²² Fit for purpose? An assessment of the effectiveness of the Baltic Sea multi-annual plan (BSMAP), September 2019

iv) Implementation of the Landing Obligation (LO)

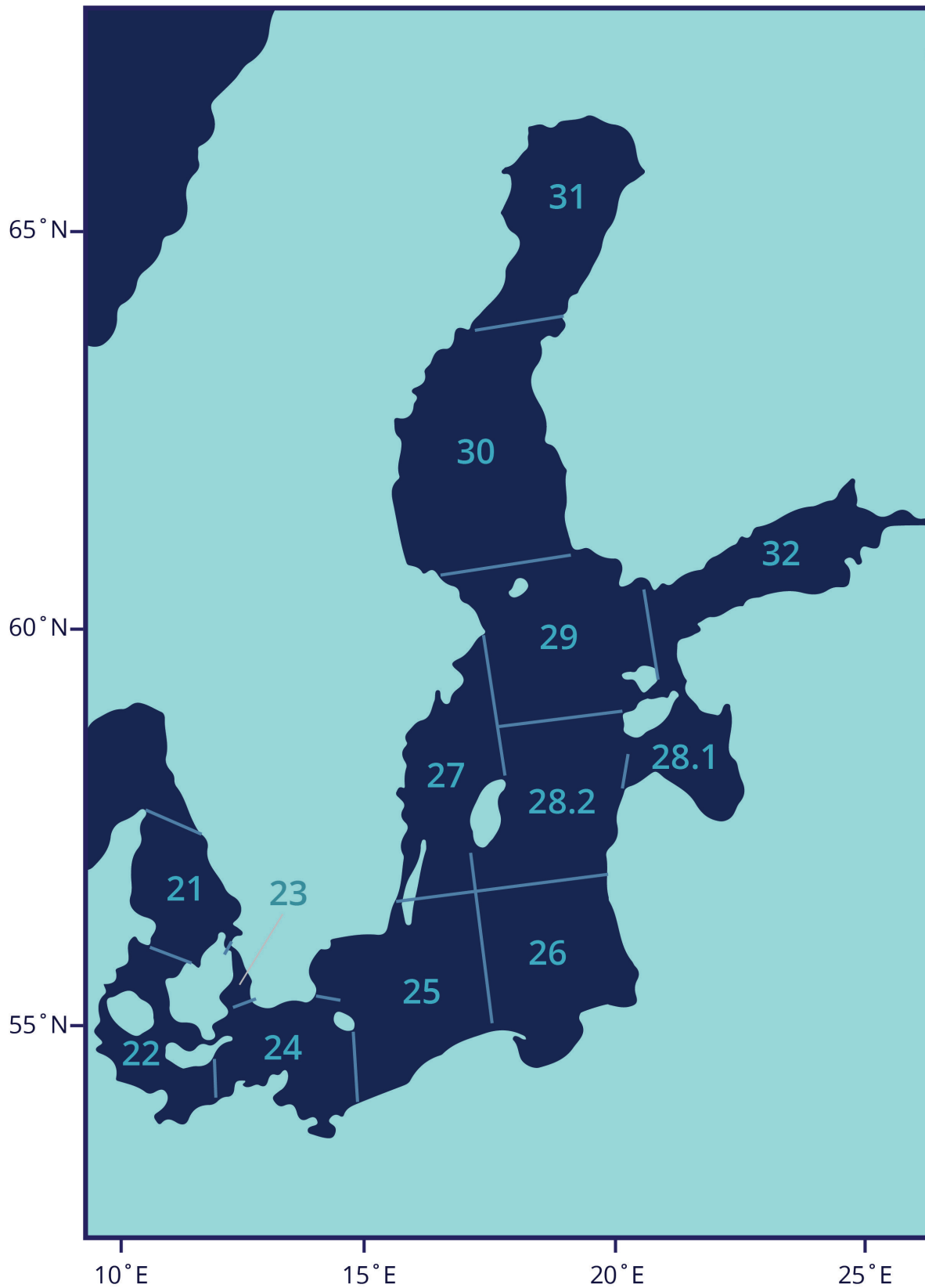
The LO provides an opportunity to meet the public's demand for reducing food waste and drive the transition to more selective, ecologically sustainable, low-impact fishing. Article 15 of the CFP basic regulation provides Member States with a range of tools to successfully implement the LO; however, it is understood that broadscale non-compliance with the LO is undermining the objectives of the CFP and of the MSFD, jeopardising scientific data and assessments, and has led to substantial increases in fishing mortality which threatens to implode the entire TAC management system.^{123, 124} As long as compliance with the LO cannot be guaranteed, TACs have to be set below the catch advice by a sufficient margin to ensure that continued illegal discards do not bring fishing above sustainable levels.¹²⁵

¹²³ Scientific, Technical and Economic Committee for Fisheries (STECF) – 60th Plenary Meeting Report (PLEN-19-01). Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-02904-5, doi:10.2760/56785, JRC116423

¹²⁴ Borges, L., 2020. The unintended impact of the European discard ban. ICES Journal of Marine Science, Volume 78, Issue 1, January-February 2021, Pages 134–141, <https://doi.org/10.1093/icesjms/fsaa200>

¹²⁵ ClientEarth, 2020. Setting Total Allowable Catches (TACs) in the context of the Landing Obligation

MAP OF BALTIC SUBDIVISIONS (SDs)



Map of the Baltic Sea showing the subdivisions of the Belt, the Sound, and the Baltic for the reporting of catch statistics.

CONTACTS

Cathrine Pedersen Schirmer, Chief Marine Policy Advisor, Danmarks
Naturfredningsforening
cathrine@dn.dk

Christine Adams, Fisheries Policy Officer, Seas At Risk
cadams@seas-at-risk.org

Franziska Saalmann, Oceans Campaigner, Greenpeace Germany
franziska.saalmann@greenpeace.org

Javier López, Campaign Director Sustainable Fisheries, Oceana
jlopez@oceana.org

Jenni Grossmann, Science and Policy Advisor, ClientEarth
jgrossmann@clientearth.org

Johanna Fox, Director of WWF Baltic Programme
johanna.fox@wwf.se

Joonas Plaan, Board Member and Sustainable Fisheries Expert, Estonian Fund
for Nature (ELF)
joonas.plaan@elfond.ee

Dr. Katja Hockun, Policy advisor nature conservation and fisheries, Deutsche
Umwelthilfe
hockun@duh.de

Konrad Stralka, Executive Director, BalticWaters
konrad.stralka@balticwaters.org

Magda Jentgena, Baltic Sea and Freshwater Programme Manager, Pasaules
Dabas Fonds (associated partner to WWF)
mjentgena@pdf.lv

Maria Staniszewska, President, Polish Ecological Club (PKE)
mw.staniszewska@gmail.com

Nils Höglund, Marine policy officer, Coalition Clean Baltic
nils.hoglund@ccb.se

Dr. Sara Söderström, Policy officer, FishSec
sara.soderstrom@fishsec.org

Dr. Robertas Staponkus, Fisheries Expert, Lithuanian Fund for Nature (LFN)
robertas.s@glis.lt

Tapani Veistola, Executive Director, Suomen luonnonsuojeluliitto (Finnish
Association for Nature Conservation)
tapani.veistola@sll.fi

Valeska Diemel, Fisheries Policy Officer, Bund für Umwelt und Naturschutz
Deutschland e.V. (BUND)
valeska.diemel@bund.net

