Joint NGO recommendations on Baltic Sea fishing opportunities for 2022

1. Introduction

In October 2021, EU fisheries ministers will agree on fishing opportunities in the Baltic Sea for 2022. As the deadline to end overfishing by 2020 at the latest as legally prescribed by Article 2(2) of the Common Fisheries Policy (CFP)[1] has passed, all fishing limits must be in line with sustainable exploitation rates.

Last year, fisheries ministers set 2 out of 10 Total Allowable Catches (TACs) in the Baltic Sea exceeding the best available scientific advice for 2020, thereby contravening the CFP deadline. The European Commission proposal already included these 2 TACs, for eastern Baltic cod and western Baltic herring, exceeding scientific advice, while ministers also further increased catch limits beyond levels proposed by the European Commission for western Baltic cod, Baltic sprat, Baltic plaice and salmon in the Gulf of Finland.

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

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

to the Baltic Sea Action Plan (BSAP)[2]. The European Green Deal[3] commits the EU to tackling the impacts of climate change and protecting and restoring biodiversity. Specifically, the EU Biodiversity Strategy[4] commits to ecosystem-based management, a transition to more selective and less damaging fishing methods, and to set 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 noted as a deliverable in the Biodiversity Strategy must become a crucial strategy to improve implementation of, and fill obvious gaps in, EU policies to put European fisheries management on a path where the full ecosystem and climate impacts of fishing are properly measured and mitigated. **We are running against the clock to stop the collapse of the Baltic Sea ecosystem and deliver on political promises to halt the climate and nature crises.**

The setting of fishing opportunities at sustainable levels is an essential precondition to deliver on these promises. 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[5], expressing disappointment that Council decision-making contravened key democratic and transparency standards. .

The October AGRIFISH Council 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, as well as on their legal obligations according to the CFP to end overfishing. It is also an opportunity to begin to realise the ambition of the Biodiversity Strategy.

The following text outlines the joint NGO recommendations on Baltic Sea fishing opportunities for 2022 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 agree on, fishing opportunities in accordance with the following recommendations:

- Set TACs not exceeding scientifically advised levels based on the MSY Approach for all stocks for which MSY-based reference points are available;
- Where MSY-based reference points are not available, set TACs not exceeding the Precautionary Approach catch limits advised by the International Council for the Exploration of the Sea (ICES);
- Set TACs not exceeding the F_{MSY} point value specified in the Baltic Sea Multi-Annual Plan (MAP).

While also taking the following factors into consideration:

- Set TACs at more precautionary levels and in line with an ecosystem-based approach to fisheries management (along with additional spatial and temporal measures) to accommodate stock-specific uncertainties (catch misreporting, discards, assessment bias etc.), interspecies stock dynamics (e.g. sprat-cod) and low recruitment trends of individual stocks, whilst also considering other pressures (pollution, eutrophication, climate change) on the Baltic ecosystem that are likely to affect the abundance of fish stock biomass;
- Fully utilise the precautionary approach in relation to mixed fisheries, protecting the most vulnerable stock either by closing areas with high mixing or dramatically reducing quotas to safeguard sub-populations;
- Take into account the lack of implementation of the Landing Obligation (LO) when setting TACs, and either require remote electronic monitoring (such as cameras) or onboard observers for all vessels

[2] HELCOM (2018): State of the Baltic Sea – Second HELCOM holistic assessment 2011-2016. Baltic Sea Environment Proceedings 155.
[3] 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.
[4] 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.
[5] https://www.ombudsman.europa.eu/en/decision/en/127388

above 12m and for medium and high risk vessels below 12m, or set TACs below ICES catch advice to ensure illegal, unreported discarding does not lead to actual catches exceeding ICES catch advice;
- Take into account that control with onboard observers was significantly reduced in 2020 due to the Covid-19 pandemic, and discard rates may therefore be higher than observed.

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, Council Working Party, and AGRIFISH Council 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 ending overfishing in the EU is fully achieved. We therefore recommend that members of the European Parliament ensure effective scrutiny of the TACs set by the Council, as well as any technical measures adopted when agreeing annual fishing opportunities.

2. Summary of NGO recommendations on Baltic Sea TACs and additional measures for 2022

TAC by area-species	TAC set for 2021	ICES advice basis	ICES stock catch advice for 2022 (tonnes)[6]	ICES advice adjusted for - Third Country shares - Stock & TAC area mixing	NGO recommendations on TACs and additional measures for 2022
Eastern Baltic cod (SDs 25-32)[7]	595 t	Precautionary Approach	0	n/a[8]	**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. - Introduce additional measures to avoid and minimise cod bycatches in any fisheries using active gears. - Fully close a wider area around the only known spawning ground in Bornholm basin. - Continue with recreational measures agreed for 2021.[9]
Western Baltic cod (SDs 22-24)	4,000 t	EU MAP (F_{MSY})	No advice released, release date postponed to September	n/a	- Close SD 24 to cod fishing (to protect the Eastern Baltic cod stock). - Continue the spawning closure for Western Baltic cod in SDs 22-23 (February & March). - 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 - Introduce additional measures to avoid and minimise cod bycatches in active demersal flatfish fisheries.

[6] 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, misreported (i.e. IUU) and unwanted catch (i.e. seal damaged and discards), as estimated by ICES.

[7] ICES. 2021. Cod (Gadus morhua) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cod.27.24-32. https://doi.org/10.17895/ices.advice.7745

[8] 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.

[9] COUNCIL REGULATION (EU) 2020/1579 of 29 October 2020 fixing for 2021 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea and amending Regulation (EU) 2020/123 as regards certain fishing opportunities in other waters

					- Continue with recreational measures agreed for 2021. Member states should consider transferring cod quota from vessels with bottom towed gear to vessels operating with low impact static gear. *Refer to Section 4 for more detail.
Baltic sprat (SDs 22-32)[10]	222,858 t	EU MAP (F_{MSY})	291 745	Deduct 10.08% Russian share.	**≤262 337 t** - Consider setting the TAC in the lower F_{MSY} range (192,429 - 262,337t) linked to F being above Fmsy, misreporting issues and to maximise food availability for cod (see ICES 2021)[11]. - Introduce restrictions on the sprat fishery in SDs 25-26 in order to redistribute the fishery to SDs 27-29 & 32. - Increase control, enforcement, onboard monitoring and sampling of landings to ensure that the misreporting of sprat as herring does not continue.
Western Baltic herring (SDs 22-24)[12]	1,575 t	MSY Approach	0	n/a	**0 t** - Additional area and/or time restrictions on the herring fishery in the North Sea and SDs 20-21, as a catch of WBSS in the North Sea will be inevitable[13].
Central Baltic herring (SDs 25-27, 28.2, 29 & 32)[14]	97,551 t	EU MAP (F_{MSY})	71 939	Deduct 9.5% Russian share. Add 696t for Gulf of Riga herring to be taken in SD 28.2 and deduct 3448t for Central Baltic herring to be taken in the Gulf of Riga (28.1).	**≤ 44,709t** - Consider setting the TAC in or below the lower F_{MSY} range (44,709 - 62,353 t) based on "*issues relevant for the advice*" (see ICES 2021)[15]. - Increase control, enforcement, onboard monitoring and sampling of landings to ensure that the misreporting of sprat as herring does not continue.

[10] ICES. 2021. Sprat (Sprattus sprattus) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, spr.27.22-32. https://doi.org/10.17895/ices.advice.7867.
[11] ICES. 2021. Sprat (Sprattus sprattus) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, spr.27.22-32. https://doi.org/10.17895/ices.advice.7867.
[12] ICES. 2021. Herring (Clupea harengus) in subdivisions 20-24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.20-24, https://doi.org/10.17895/ices.advice.7766.
[13] ICES. 2021. Herring (Clupea harengus) in subdivisions 20-24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.20-24, https://doi.org/10.17895/ices.advice.7766.
[14] ICES. 2021. Herring (Clupea harengus) in subdivisions 25-29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.25-2932. https://doi.org/10.17895/ices.advice.7767.
[15] ICES. 2021. Herring (Clupea harengus) in subdivisions 25-29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.25-2932. https://doi.org/10.17895/ices.advice.7767.

Gulf of Riga herring (SD 28.1)[16]	39,446 t	EU MAP (F_{MSY})	44,945	Deduct 696t for Gulf of Riga herring to be taken in SD 28.2 and add 3,448t for Central Baltic herring to be taken in the Gulf of Riga (28.1).	**≤47,697 t**
Gulf of Bothnia herring (SDs 30-31)[17]	65,018 t	EU MAP (F_{MSY})	111,345	n/a	**≤111,345 t** - Consider setting the TAC in the lower F_{MSY} range (86,729t - 111,345t) - Consider a far more cautious TAC in light of risks to sub-populations.
Baltic plaice (SDs 22-32)[18] [19]	7,240 t	***Plaice SDs 21-23:*** MSY approach ***Plaice SDs 24-32:*** Precautionary Approach	8,821 3,956	Deduct estimated catches in SD 21. Apply the same method as detailed in the ICES advice[20]	**≤11,082 t** - Enhance catch monitoring and control on all vessels in the targeted flatfish fishery because of the high volumes of cod bycatches. - Consider a TAC lower than 11,082 t to safeguard and help recover eastern and western Baltic cod which are taken as bycatch in the flatfish fisheries. - Consider a spatial closure for vessels operating with bottom towed gear in SDs 24 and 26 where eastern Baltic cod is most abundant in order to avoid bycatch of the stock on which a zero TAC is recommended.[21] - New selective fishing gears designed for flatfish must be used to avoid cod bycatch in the flatfish fisheries.[22,23]
Baltic salmon (SDs 22-31)	94,496	n/a	No advice released, release	Deduct 1.9% Russian share.	- -Management of the Baltic salmon stocks must follow ICES advice from 2020, stating that

[16] ICES. 2021. Herring (Clupea harengus) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.28. https://doi.org/10.17895/ices.advice.7768.
[17] ICES. 2021. Herring (Clupea harengus) in Subdivisions 30 and 31 (Gulf of Bothnia). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.3031. https://doi.org/10.17895/ices.advice.7769.
[18] ICES. 2021. Plaice (Pleuronectes platessa) in subdivisions 24-32 (Baltic Sea, excluding the Sound and Belt Seas). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, ple.27.24-32, https://doi.org/10.17895/ices.advice.7818.
[19] 2021. Plaice (Pleuronectes platessa) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, ple.27.21-23, https://doi.org/10.17895/ices.advice.7817.
[20] See Table 4 in ICES. 2021. Plaice (Pleuronectes platessa) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, ple.27.21-23, https://doi.org/10.17895/ices.advice.7817.
[21] 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.
[22] 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*.
[23] 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*.

			date postponed to September		individual stock status must steer any fishing and the mixed stock sea fishery must stop. - -Urgently develop a new proposal for TAC setting and start development of a new multiannual management plan.
Gulf of Finland salmon (SD 32)	8,883	n/a	No advice released, release date postponed to September	Deduct 9.3% Russian share.	- No wild salmons should be targeted in Gulf of Finland - Salmon from GoF mix with main basin salmon stocks at sea. The mixed stock sea fishery must be stopped to safeguard the GoF stocks -Urgently develop a new proposal for TAC setting and in the medium term, develop a new multiannual management plan[22]

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).

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3. Recommendations on Baltic Sea TACs and additional measures for 2022

Eastern Baltic cod in SDs 25-32

We recommend that the TAC for 2022 should be set at zero in subdivisions (SDs) 25-32 and zero in SD 24 based on the "*ICES advice on fishing opportunities*", which states that "*ICES advises that when the precautionary approach is applied, there should be zero catch in 2022. This advice applies to all catches from the stock in subdivisions (SDs) 24–32.*"[24]

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 strategy[25], taking into account interspecies considerations and all threats on the stock, including eutrophication, pollution, climate change, habitat loss as well as the general state of the Baltic Sea ecosystem[26].

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 and spatial measures[27]. 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[28]. These conditionalities have not been met in the case of eastern Baltic cod.

Importantly in the case of eastern Baltic cod, we note that the ICES advice for 2021 states "*At the current low productivity the stock is estimated to remain below Blim 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.*"[29] 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) fishery[30] as well as about the continued discarding practice[31].

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 2021[32], then we strongly recommend the following additional measures for 2022:

- 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;
- Introduce more selective fishing gears to avoid cod bycatch in the flatfish fishery (see ICES[33,34]);
- Ensure that any exemptions from the LO are subject to increased at-sea monitoring and control;
- Introduce a spatial closure to cover the entire area in the Bornholm Basin and additionally a closure of demersal fisheries in the entire SD 26[35], which would have limited implications for EU flatfish fisheries, while protecting a substantial part of the eastern Baltic cod stock[36].

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[24] ICES. 2021. Cod (Gadus morhua) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cod.27.24-32. https://doi.org/10.17895/ices.advice.7745.

[25] 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.

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

[27] COUNCIL REGULATION (EU) 2020/1579 of 29 October 2020 fixing for 2021 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea and amending Regulation (EU) 2020/123 as regards certain fishing opportunities in other waters

[28] Joint NGO paper (2018). Recovering fish stocks and fully implementing the Landing Obligation. See pages 5-6.

[29] ICES. 2021. Cod (Gadus morhua) in subdivisions 24–32, eastern Baltic stock (eastern Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, cod.27.24-32. https://doi.org/10.17895/ices.advice.7745

[30] 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*.

[31] ICES (2020). BALTIC FISHERIES ASSESSMENT WORKING GROUP (WGBFAS). *ICES Scientific Reports. 2:45. 632 pp*. See page 54.

[32] COUNCIL REGULATION (EU) 2020/1579 of 29 October 2020 fixing for 2021 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea and amending Regulation (EU) 2020/123 as regards certain fishing opportunities in other waters

[33] 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*.

[34] 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.*

[35] ICES (2018). Request by Poland to review the effectiveness of current conservation measures in place for the Baltic cod.

[36] 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*.

TAC setting needs to consider an ecosystem-based approach to fisheries management as required by the CFP. Prioritisation of the interspecies and food web considerations would contribute to the achievement of 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 fished[37] (see recommendation below);
- Seriously consider prioritising the need to safeguard cod when setting the central Baltic herring and sprat TACs as well as considering the temporal and spatial allocation of the fishing for sprat, in accordance with the ICES advice on fishing opportunities[38] (see recommendations below);
- Consider transferring quota of other species from vessels with active bottom towed gear to vessels operating with low impact static gear that have a lower cod bycatch rate.

Western Baltic cod in SDs 22-24

ICES postponed the release date of the advice to September, due to problems with the analytical assessment attributed to retrospective bias.

Retrospective bias or retrospective patterns are systematic changes in the estimations of population size, or other assessment model-specific quantities, which occur when additional years of data are included in the assessment. These patterns can lead to severe errors when providing management advice as they indicate that in previous years stock size and fishing mortality were over- or underestimated.

ICES has guidelines for how to address such bias/patterns and when too much error should trigger an Inter-benchmark review or downgrade of stock (ACOM in 2020 adopted the WKFORBIAS decision tree)[39]. At this stage it is difficult to anticipate the outcome of such analysis, but considering the survey data it is likely that there will be considerable reductions in TAC advice from ICES.

Baltic Sea sprat in SDs 22-32

The TAC for 2022 should not exceed 262,337 tonnes (F_{MSY}). We recommend that the TAC should be set in the lower F range i.e. between $F_{MSY\ lower}$ (192,429 tonnes) and F_{MSY} (262,337 tonnes). The TAC of 262,337 tonnes is based on ICES advice of F_{MSY} (291,745 tonnes). The lower TAC of 192,429 tonnes is based on ICES $F_{MSY\ lower}$ figure (214,000 tonnes). For both we have deducted from the ICES advised figures an assumed Russian share of 10.08%[40].

This recommendation takes into account an ecosystem-based approach to fisheries management, considering dynamics between the stocks of eastern Baltic cod and sprat as noted in the ICES advice[41]. In its Ecosystem Overview – Baltic Sea Ecoregion, ICES explains: *"Many species and habitats of the Baltic Sea are not in good condition, according to recent assessments. This affects food web functionality, reduces the resilience and resistance against further environmental changes, and diminishes prospects for socioeconomic benefits, including fishing opportunities."*[42] More precaution is needed while managing pelagic stocks in a disturbed Baltic Sea ecosystem, thus using the lower range of F_{MSY} is justified.

We further recommend restrictions on the sprat fishery in SDs 25-26 in order to redistribute the sprat fishery to the northern areas (SDs 27-29 & 32) to improve food availability for cod. This is

[37] 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.*

[38] ICES. 2021. Sprat (Sprattus sprattus) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, spr.27.22-32. https://doi.org/10.17895/ices.advice.7867.

[39] ICES. 2020. Workshop on Catch Forecast from Biased Assessments (WKFORBIAS; outputs from 2019 meeting). ICES Scientific Reports. 2:28. 38 pp. http://doi.org/10.17895/ices.pub.5997

[40] Based on the 2009 TACs sharing agreement between EU and Russia. However, we note that ICES estimate the Russian quota in 2020 as 46,500 tonnes – which was 18.1% of the TAC. This highlights the discrepancy between the sharing agreement and the actual catches made by each party.

[41] ICES. 2021. Sprat (Sprattus sprattus) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, spr.27.22-32. https://doi.org/10.17895/ices.advice.7867.

[42] ICES. 2020. Baltic Sea Ecoregion – Ecosystem overview. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, Section 4.1, https://doi.org/10.17895/ices.advice.7635.

in accordance with "*issues relevant for the advice*", where ICES states: "*Sprat are an important forage species for Baltic cod, and multispecies interactions should be considered when managing the sprat fishery"*[43].

In addition, we note that there is evidence that Baltic pelagic fisheries misreported official catches, with sprat catches regularly recorded as herring in 2019[44,45]. This means catches of sprat might be higher than those officially reported. When data is uncertain even more precaution is needed in fisheries management – following the precautionary approach as defined in the CFP. **We further suggest that a significant increase in control, enforcement, onboard monitoring and sampling of landings is required to ensure that misreporting ceases.**

Western Baltic Spring Spawning (WBSS) herring in SDs 22-24

We recommend that the TAC for 2022 should be zero. This is the fourth year in a row that ICES advises a zero TAC based on the MSY approach.

We recommend adjusting the TAC setting procedure for both North Sea Autumn Spawners (NSAS) and WBSS herring together in such a way that absolutely minimizes catches of the WBSS stock. We note that the Agreed Record of Fisheries Consultations between the United Kingdom, Norway and the European Union[46] establishes a working group with a mandate to examine the management of herring in the North Sea and Skagerrak/Kattegat. Furthermore, the EU-Norway agreement (2021)[47] "*noted that it was agreed that this working group should start their work in 2021, and make recommendations for management models for the management of herring in both the North Sea and Skagerrak/Kattegat, where NSAS herring mix with WBSS herring stocks. The working group should assess the current practice of setting separate TACs to cover by-catches in other fisheries.*" We fully support joint international efforts involving the EU, the UK and Norway to establish a trilateral working group on the NSAS and Skagerrak/Kattegat herring management with consideration of unavoidable catches of WBSS herring.

The SSB of the WBSS herring stock is estimated to be below Blim and has been below Blim since 2007. Recruitment has been low since the mid-2000s and at an historic low for the last five years. There are no catch scenarios that will rebuild the stock above Blim by 2024[48].

According to Article 5 of the Baltic Sea MAP, further remedial measures including the suspension of fishing activity shall be taken to ensure rapid return of the stock concerned to levels 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.

We note in "*issues relevant for the advice*" ICES state: "*This stock is caught across three different management units, and recovery will be impaired if catches of this stock are not minimized in all units. It is estimated that around 27% of the 2021 total catches from the stock are taken in Division 4.a. For the other two areas, catch shares in 2021 are estimated to be around 64% for subdivisions 20–21 and 8% for subdivisions 22–24. The stock projections are particularly uncertain this year. Possible changes may occur in 2021–2022 to both fishing grounds and subsequent exploitation patterns in the North Sea herring fisheries as a consequence of the Brexit agreements. Given the mixing of the WBSS and North Sea autumn-spawning (NSAS) herring throughout part of the North Sea, and the large differences in the size and quotas of the two stocks, changes in the distribution of the fisheries may result in increased catches of WBSS, for which zero catch advice is issued*."[49]. **We therefore recommend in accordance**

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43 ICES. 2021. Sprat (Sprattus sprattus) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, spr.27.22-32. https://doi.org/10.17895/ices.advice.7867.

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

45 ICES. 2021. Sprat (Sprattus sprattus) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, spr.27.22-32. https://doi.org/10.17895/ices.advice.7867. See page 3.

46 Agreed record of fisheries consultations between the European Union, Norway and the United Kingdom for 2021. 16 March 2021

47 AGREED RECORD OF CONCLUSIONS OF FISHERIES CONSULTATIONS BETWEEN NORWAY AND THE EUROPEAN UNION ON THE REGULATION OF FISHERIES IN SKAGERRAK AND KATTEGAT FOR 2021 16 MARCH 2021

48 ICES. 2021. Herring (Clupea harengus) in subdivisions 20-24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.20-24, https://doi.org/10.17895/ices.advice.7766.

49 ICES. 2021. Herring (Clupea harengus) in subdivisions 20-24, spring spawners (Skagerrak, Kattegat, and western Baltic). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.20-24, https://doi.org/10.17895/ices.advice.7766.

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.

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

The TAC for 2022 should not exceed 62,353 tonnes (F_{MSY}). We recommend that the TAC should be set in the lower F range i.e. between $F_{MSY\ lower}$ (44,709 tonnes) and F_{MSY} (62,353 tonnes). The TAC of 62,353 tonnes is based on ICES F_{MSY} advice (71,939 tonnes). The lower TAC of 44,709 tonnes is based on the ICES MSY F_{lower} figure (52,443 tonnes). From both ICES figures we have deducted an assumed 9.5% Russian share[50], and then added 696 tonnes for Gulf of Riga herring taken in SD 28.2 and deducted 3,448 tonnes for Central Baltic herring taken in Gulf of Riga (28.1).

This recommendation takes into consideration an ecosystem-based approach to fisheries management, taking into account dynamics between the stocks of eastern Baltic cod and herring[51]. Additionally, the ICES advice indicates that the central Baltic herring biomass is expected to decline in the coming years.

ICES information on stock developments over time reads as follows: "*The 2019 year class which was estimated to be strong in last years assessment is now estimated to be below average. There has been no strong recruitment since 2015."*[52] It would be prudent for decision-makers to attempt to conserve the 2014 year class and limit the chances of significant downwards variations in fishing opportunities in future years.

As explained in our recommendations on sprat in SDs 22-32, more precaution is needed while managing pelagic stocks in a disturbed Baltic Sea ecosystem, and when the data on catches is uncertain (i.e. due to the misreporting of sprat as herring). Using the lower range of F_{MSY} is therefore appropriate.

Gulf of Riga herring in SD 28.1

We recommend that the TAC for 2022 should not exceed 47,697 tonnes. This is based on the ICES advice of F_{MSY} (44,945 tonnes)[53], from which we deduct 696 tonnes for Gulf of Riga herring taken in SD 28.2 and add 3448 tonnes for Central Baltic herring taken in the Gulf of Riga (28.1).

Gulf of Bothnia herring in SDs 30-31

The TAC for 2022 should not exceed 111,345 tonnes (F_{MSY}). We recommend that the TAC should be set in the lower F range i.e. between $F_{MSY\ lower}$ (86,729) and F_{MSY} (111,345)[54]. In addition, we ask to consider a far more cautious TAC in light of risks to sub-populations.

Baltic Sea plaice in SDs 22-32

We recommend that the TAC for 2022 should not exceed 11,082 tonnes. This is based on the ICES F_{MSY} catch scenario for plaice in SDs 21-23[55] and ICES Precautionary Approach advice for plaice in SDs 24-32[56].

We note the likelihood of significant bycatch of eastern Baltic cod when catching plaice in SDs 24-26[57]. The setting of the plaice TAC needs to be carefully considered in the context of conservation measures

[50] Based on the 2009 TACs sharing agreement between EU and Russia. However, we note that ICES estimate the Russian quota in 2020 as 29,100 tonnes – which was 15.6% of the TAC. This highlights the discrepancy between the sharing agreement and the actual catches made by each party.

[51] ICES. 2021. Sprat (Sprattus sprattus) in Subdivisions 22-32 (Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, spr.27.22-32. https://doi.org/10.17895/ices.advice.7867.

[52] ICES. 2021. Herring (Clupea harengus) in subdivisions 25-29 and 32, excluding the Gulf of Riga (central Baltic Sea). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.25-2932. https://doi.org/10.17895/ices.advice.7767.

[53] ICES. 2021. Herring (Clupea harengus) in Subdivision 28.1 (Gulf of Riga). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.28. https://doi.org/10.17895/ices.advice.7768.

[54] ICES. 2021. Herring (Clupea harengus) in Subdivisions 30 and 31 (Gulf of Bothnia). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, her.27.3031. https://doi.org/10.17895/ices.advice.7769.

[55] ICES. 2021. Plaice (Pleuronectes platessa) in subdivisions 21-23 (Kattegat, Belt Seas, and the Sound). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, ple.27.21-23, https://doi.org/10.17895/ices.advice.7817.

[56] ICES. 2021. Plaice (Pleuronectes platessa) in subdivisions 24-32 (Baltic Sea, excluding the Sound and Belt Seas). In Report of the ICES Advisory Committee, 2021. ICES Advice 2021, ple.27.24-32, https://doi.org/10.17895/ices.advice.7818.

[57] 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.

and a rebuilding plan for eastern Baltic cod. We must stress that according to ICES, in 2020 some 4,433 tonnes of plaice was landed in areas 22-32. In the same area, ICES records an estimated 1,084 tonnes of discards.

The ICES report states "*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."* [58]

In order to avoid bycatch of eastern Baltic cod, for which ICES advises zero catches, we recommend that the Commission and the Council set a TAC lower than 11,082 tonnes for plaice, and mandate more selective fishing gears to avoid cod bycatch in the flatfish fisheries (see ICES[59,60]), as well as spatial closures of SDs 24 and 26.

Furthermore, we recommend that the Commission request 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.

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

ICES has postponed the release date of its advice to September. The reason given is that the advice presented by the working group to ICES ACOM did not comply with MSY principles and ICES guidelines. ICES noted that last year's special request related to salmon will be guiding the advice. Key elements from last year's advice include:

- ICES advice states that *"management of salmon fisheries should be based on the status of individual river stocks. Fisheries on mixed stocks that encompass weak wild stocks present particular threats, and should be kept as close to zero as possible"*[61]. The recent ICES review of the draft multiannual plan for Baltic salmon concluded that the approach previously used deviates from the objective of achieving MSY for several of the river stocks.
- ICES notes that if "*maintaining a noticeable mixed-stock sea fishery with the current fishing patterns, then it must be accepted that some rivers will be below the level where they are capable of producing MSY, and some rivers may even go extinct*."[62,63] This is not an acceptable policy outcome. Progress must be made to transition to sustainable salmon management. In the short-term this can be initiated through the setting of more precautionary TACs for salmon.
- ICES notes *"that if the goal is to obtain MSY for all river stocks, the mixed-stock sea fisheries (both commercial and recreational) will have to be kept either at very low levels or closed while optimizing the river fisheries*."[64] This means there needs to be urgent management discussions on how to achieve the CFP objectives for salmon across all fisheries.
- ICES notes "*there is considerable uncertainty about the amount of salmon discarded, and even greater uncertainty about the proportion that survives when discarded. Seal-damaged salmon*

[58] 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.*

[59] 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*.

[60] 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.*

[61] ICES (2020). Salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). *In Report of the ICES Advisory Committee, 2020, ICES Advice 2020, sal.27.22–31, https://doi.org/10.17895/ices.advice.5900.*

[62] ICES (2020). EU request on evaluation of a draft multiannual plan for the Baltic salmon stock and the fisheries exploiting the stock. In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, sr.2020.02, https://doi.org/10.17895/ices.advice.6008.

[63] ICES (2020). Salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). *In Report of the ICES Advisory Committee, 2020, ICES Advice 2020, sal.27.22–31, https://doi.org/10.17895/ices.advice.5900.*

[64] ICES (2020). Salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). *In Report of the ICES Advisory Committee, 2020, ICES Advice 2020, sal.27.22–31, https://doi.org/10.17895/ices.advice.5900.*

are all dead, but there is also uncertainty about the amount of seal-damaged salmon." [65] This needs to be considered when setting the TAC, as more precaution is warranted due to this uncertainty.

- ICES notes: "*misreported catch, as a proportion of the total estimated catch, decreased to almost non-existent (1%) from previous year (32%). […] The decrease is a consequence of new regulations which ban sea trout fishing beyond a 4-mile baseline in the Baltic Sea offshore area.*"[66] We are concerned and surprised by this dramatic change and more precaution is needed on TAC setting until there is published evidence that these measures to reduce misreported catches really are effective and suitably controlled.

Gulf of Finland salmon in SD 32

ICES has postponed the release date of its advice to September. The reason given is that the advice presented by the working group to ICES ACOM did not comply with MSY principles and ICES guidelines. ICES has noted that last year's special request related to salmon will be guiding the advice.

Regardless of the postponed catch advice date, we emphasise that any fishery should target only reared fin-clipped salmon in order to keep fisheries-related mortality on wild salmon as low as possible, in accordance with ICES advice on fishing opportunities for previous years[67].

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 further 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, sustainable exploitation rates should have been reached by 2020 and this was not the case for many Baltic Sea stocks[68].

i) The MSY objective

Article 2(2) of the CFP states that, in order 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

[65] ICES (2020). Salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). *In Report of the ICES Advisory Committee, 2020, ICES Advice 2020, sal.27.22–31, https://doi.org/10.17895/ices.advice.5900.*

[66] ICES (2020). Salmon (*Salmo salar*) in subdivisions 22–31 (Baltic Sea, excluding the Gulf of Finland). *In Report of the ICES Advisory Committee, 2020, ICES Advice 2020, sal.27.22–31, https://doi.org/10.17895/ices.advice.5900.*

[67] ICES (2020). Salmon (*Salmo salar*) in Subdivision 32 (Gulf of Finland). *In Report of the ICES Advisory Committee, 2020, ICES Advice 2020, sal.27.32. https://doi.org/10.17895/ices.advice.5974.*

[68] The Pew Charitable Trusts (2021). Analysis of Fisheries Council agreement on fishing opportunities in the Baltic Sea for 2021.

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 MAP[69] 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 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 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[70].

iv) Implementation of the Landing Obligation (LO)

The LO provides an opportunity to meet the public's demand for fishing to waste as little as possible 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[71] [72]. 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[73].

[69] 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

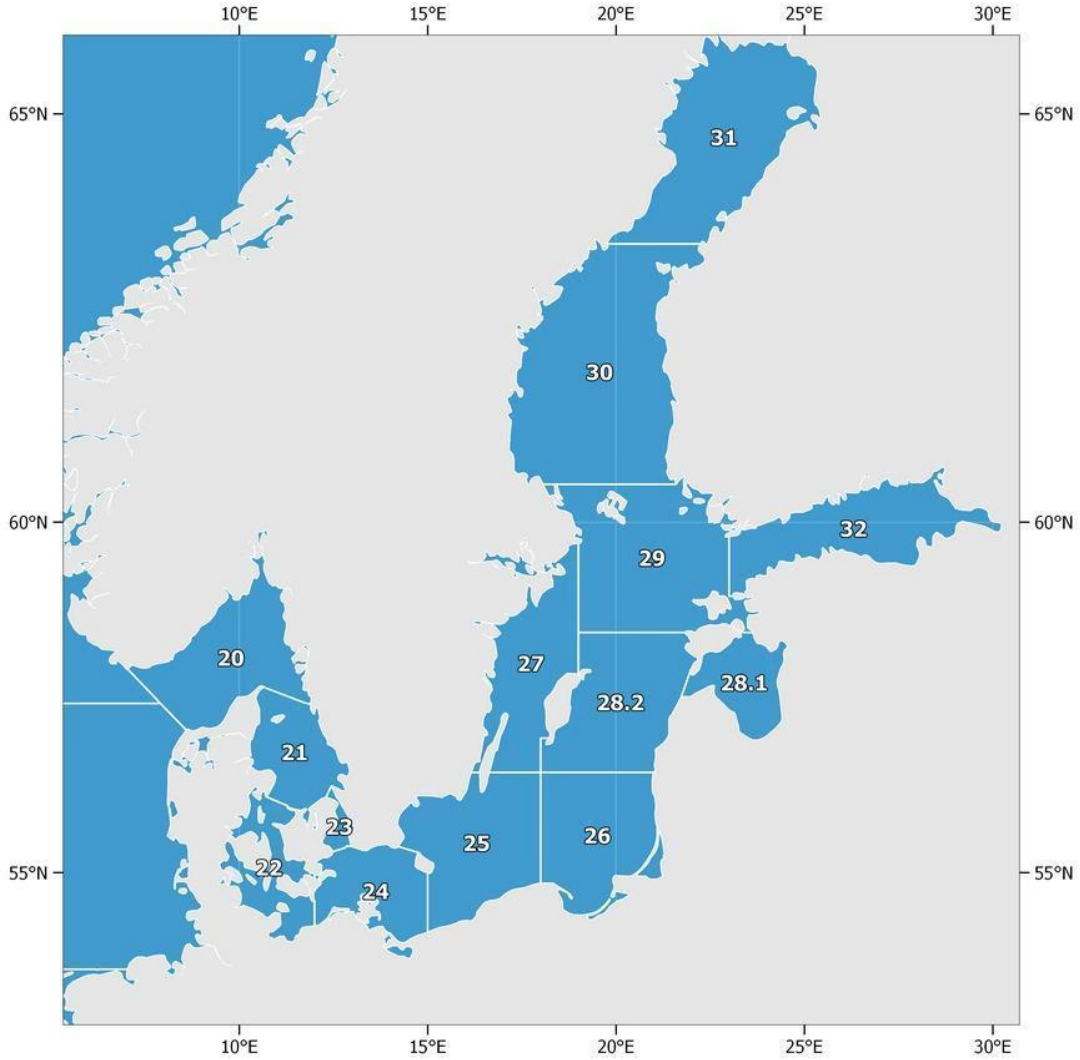
[70] Fit for purpose? An assessment of the effectiveness of the Baltic Sea multi-annual plan (BSMAP). September 2019

[71] 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

[72] 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

[73] ClientEarth (2020) Setting Total Allowable Catches (TACs) in the context of the Landing Obligation

5. 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. *Source:* http://www.fao.org/fishery/area/Area27/en

Contacts

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

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

Thilo Maack, Campaigner, Greenpeace
tmaack@greenpeace.org

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

Elza Ozolina, Sustainable Fisheries Programme Manager, Pasaules Dabas Fonds (associated partner to WWF)
eozolina@pdf.lv

Rebecca Hubbard, Program Director, Our Fish
rebecca@our.fish

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

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

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

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

Dr Stina Tano, Senior Policy Advisor Marine Ecosystems and Fisheries, Swedish Society for Nature Conservation
stina.tano@ssnc.se

Ottilia Thoreson, Director of Baltic Ecoregion Programme, WWF
ottilia.thoreson@wwf.se

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

Jan Isakson, Director, FishSec
jan.isakson@fishsec.org

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

Andrea Ripol, Fisheries Policy Officer, Seas at Risk
aripol@seas-at-risk.org

Justyna Zajchowska, Senior Marine Conservation Specialist, Fundacja WWF Polska
jzajchowska@wwf.pl