

## Oceana recommendations on fishing opportunities for 2016

### Baltic Sea Stocks

 **OCEANA**





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## Acronyms

**MSY** - Is the optimal catch that may be taken from a fishing stock year after year without endangering its capacity to regenerate for the future<sup>1</sup>.

**CFP** - Is a set of rules for managing European fishing fleets and for conserving fish stocks. The CFP aims to ensure that fishing and aquaculture are environmentally, economically and socially sustainable and that they provide a source of healthy food for EU citizens<sup>2</sup>.

**TAC** - Total allowable catches (TACs), or fishing opportunities, are catch limits (expressed in tonnes or numbers) that are set for most commercial fish stocks<sup>3</sup>.

**ICES** - The International Council for the Exploration of the Sea is a global organization that develops science and advice to support the sustainable use of the oceans<sup>4</sup>. The European Commission prepares the fishing opportunities proposals, based on scientific advice on the stock status from advisory bodies such as ICES.

**STECF** – The Scientific, Technical and Economic Committee for Fisheries was established to provide the EC with highly qualified scientific personnel, particularly in the fields of marine biology, marine ecology, fisheries science, fishing gear technology and fishery economics<sup>5</sup>.

**BSAC** - The main aim of the Baltic Sea Advisory Council is to advise the European Commission and Member States on matters related to the management of fisheries in the Baltic Sea<sup>6</sup>.

**SSB** - Spawning stock biomass. The total weight of all sexually mature fish in the stock<sup>7</sup>.

**B<sub>lim</sub>** - Limit reference point for spawning stock biomass (SSB). Below it, there is a high risk that recruitment will 'be impaired' (seriously decline) and on average be significantly lower than at higher SSB<sup>8</sup>.

**F** - Instantaneous Rate of Fishing Mortality<sup>9</sup>. The direct impact of fisheries on fishing stock.

**F<sub>MSY</sub>** - Fishing mortality consistent with achieving Maximum Sustainable Yield (MSY)<sup>10</sup>.

**MSFD** - The aim of the European Union's ambitious Marine Strategy Framework Directive is to protect the marine environment more effectively across Europe (Directive 2008/56/EC)<sup>11</sup>.

**GES** – Good Environmental Status, the main goal of the Marine Strategy Framework Directive. It is defined as “the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive”<sup>12</sup>.

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<sup>1</sup> <http://ec.europa.eu/fisheries>

<sup>2</sup> Idem.

<sup>3</sup> <http://ec.europa.eu/fisheries>

<sup>4</sup> [www.ices.dk](http://www.ices.dk)

<sup>5</sup> <http://ec.europa.eu/fisheries>

<sup>6</sup> [www.bsac.dk](http://www.bsac.dk)

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<sup>7</sup> [www.ices.dk](http://www.ices.dk)

<sup>8</sup> Idem.

<sup>9</sup> Idem.

<sup>10</sup> Idem.

<sup>11</sup> <http://ec.europa.eu/>

<sup>12</sup> <http://ec.europa.eu/>

## Introduction

In advance of the next EU Fisheries Council decision on fishing opportunities in the Baltic Sea, Oceana releases its recommendations for setting total allowable catches (TACs) for 2016, in line with the most recently available scientific advice and aimed at ensuring EU fisheries recover from overfishing within the committed deadlines.

EU Member states shall ensure that TAC levels are in line with scientific advice and guarantee that stocks are fished within MSY levels as soon as possible and no later than 2020, as laid down under the Common Fisheries Policy (CFP). **Oceana wants to stress that after this deadline, overfishing EU stocks will become illegal under EU law.**

The end of overfishing is necessary not only to guarantee the sustainable exploitation of fish resources and to recover the profitability and social prosperity of the fishing activity, but also as a condition with which to achieve the good environmental status (GES) of the oceans, the main goal of the Marine Strategy Framework Directive<sup>13</sup>, which has another 2020 deadline. To achieve this, Oceana urges the European Council of Ministers to set fishing opportunities that are in line with scientific advice and consistent with the objectives of the CFP.

Some commercial stocks in the Baltic Sea lack proper management, such as TAC or effort control, including, for example, most of the flatfish stocks as well as sea trout.

In order to ensure the long-term stability of Baltic Sea fisheries, the EU Council of Ministers needs to:

- Follow scientific advice in setting fishing opportunities and prioritising stock recovery;
- Set the TACs for both eastern and western cod stocks, ensuring long-term recovery and putting an end to overfishing;

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<sup>13</sup> Directive 2008/56/EC (Marine Strategy Framework Directive)

- Stop all directed sprat fisheries in areas 25-26 and redistribute fishing efforts to the northern areas to allow cod stocks to recover;
- Support the immediate adoption and entry into force of the new Baltic MAP to ensure the future of Baltic Sea fish stocks.

## Fishing opportunities

In early September, the European Commission (EC) presented its annual proposal<sup>14</sup> of catch limits for the Baltic Sea. The proposal is based largely on scientific advice, issued by the International Council on the Exploration of the Seas (ICES), and for the majority of stocks the EC has been able to propose limits at sustainable levels that are in line with the management objectives of the Common Fisheries Policy.

The EC stated that for 7 of the 10 stocks, the available data has enabled catch limits to be proposed at sustainable levels, or within what is known as the Maximum Sustainable Yield (MSY), for more stocks than ever before. The CFP sets the objective of reaching MSY exploitation rates by 2015 (where possible). This date is now gone and the status quo persists. Even in spite of visible progress the catch limits continue to be set above scientific advice for several stocks.

The EU now aims to achieve MSY for all fish stocks by 2020, at the latest, to reach the second deadline set by the CFP. But all signs indicate that a lack of political will to rebuild the stocks still persists and administrations keep turning a blind eye to overfishing. Worryingly, the European Commission has failed to present a proposal for the western cod stock - one of the most commercially important species in the region. The stock has been heavily overfished for several years now and ICES has clearly stated<sup>15</sup> that, in line

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<sup>14</sup> The Commission proposes Baltic Sea fishing opportunities for 2016, Brussels, 2 September 2015 [http://europa.eu/rapid/press-release\\_IP-15-5563\\_en.htm](http://europa.eu/rapid/press-release_IP-15-5563_en.htm)

<sup>15</sup> ICES Advice on fishing opportunities, catch and effort, Baltic Sea Ecoregion, Western Baltic cod stock; <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2015/2015/cod-2224.pdf>

with MSY, catches in 2016 should not exceed 7,797 tonnes (or 5,239 tonnes if recreational fishing effort is removed). The logical step forward is reducing catch limits so that they can provide the MSY that was expected from the EC's proposal.

Moreover, the EU Commission, according to public statements<sup>16</sup>, proposes a catch limit of 41,143 tonnes for the eastern cod stock and claims it is in line with ICES' advice. The reality is, however, that ICES, in its proposal from 29 May this year<sup>17</sup>, stated that "when the precautionary approach is applied, catches in 2016 (...) should be no more than 29,220 tonnes."

Cod is a very important fish species in the Baltic, both environmentally and commercially, and its recovery should be a top priority.

Oceana therefore calls for a cautious approach towards the fragile eastern stock and a hefty catch reduction compared to 2015, resulting in the TAC being no more than 29,220 tonnes (following ICES' advice of a 43% cut). The western stock is heavily overexploited and has a long history of overfishing. In order to allow it to rebuild and yield more productivity in the long term, we urge the EU states to follow ICES' advice and support a TAC no larger than 7,797 tonnes - a 49% catch reduction.

Oceana sees MSY management as a first step in the right direction for the management of European fisheries. However, in the long term, fisheries management should go beyond MSY to ensure the environmental and economic sustainable exploitation of marine resources. In the CFP, the MSY objective should therefore be seen as an upper limit for exploitation rather than a target.

<sup>16</sup> The Commission proposes Baltic Sea fishing opportunities for 2016, Brussels, 2 September 2015 [http://europa.eu/rapid/press-release\\_IP-15-5563\\_en.htm](http://europa.eu/rapid/press-release_IP-15-5563_en.htm)

<sup>17</sup> ICES Advice on fishing opportunities, catch, and effort: Cod (*Gadus morhua*) eastern Baltic stock in Subdivisions 25–32 (Eastern Baltic Sea) and Subdivision 24 <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2015/2015/cod-2532.pdf>

## Management plans

The Baltic Sea can and should be an example of successful fisheries management. A new multi-annual multi-species management plan (MAP) is currently being negotiated in the European Union.

The Baltic MAP providing management for cod (*Gadus morhua*), sprat (*Sprattus sprattus*), herring (*Clupea harengus*) and flatfish, has been in the final stage of negotiations between the European Parliament and the Council of the EU since June. Negotiators have, however, hit an impasse due to the difference of views between the European Parliament and Council. Until it is adopted, cod is still managed by the old management plan, which ICES identified as no longer able to be considered precautionary. Therefore, the immediate adoption and entry into force of the new MAP is essential to ensuring the future of Baltic Sea fish stocks.

Oceana supports the adoption of a robust Baltic MAP, fully in line with the new CFP and coherent with the EU environmental legislation, that would finally end overfishing, secure sustainable catches and ensure healthy fish stocks.



## Oceana's principles for proposing TACs for 2016

The Commission has proposed the following principles to set fishing opportunities for 2016:

1. The catch levels will be based on the best available scientific advice from the International Council for the Exploration of the Sea (ICES) and the Scientific, Technical and Economic Committee for Fisheries (STECF) on achieving MSY.
2. Only if achieving MSY by 2016 seriously jeopardizes the social and economic sustainability of the fishing fleets involved will a delay in reaching the objective no later than 2020 be acceptable.
3. In cases where scientific information is insufficient to determine MSY levels, approximate parameters should be considered and several situations have been identified. In all cases, the Commission intends to make proposals based on scientific advice and without jeopardizing the conservation needs of these stocks.

Oceana supports these guidelines and emphasises the urgent need to follow the ICES MSY framework, as a commitment to reducing overfishing and as an intermediate step towards rebuilding fish stocks to their most productive levels.

Oceana further encourages the Commission and Member States to incorporate more species into the Baltic Sea TAC regime, starting with those for which ICES has already provided scientific advice on stock status and recommended catch limits.

Finally, Oceana considers that the allocation of fishing opportunities should give priority to fishermen who apply the most environmentally sound practices, thus rewarding fishing methods that are the most selective and least destructive to the environment<sup>18</sup>.

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<sup>18</sup> In line with Article 17 of the CFP: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:354:0022:0061:EN:PDF>



Trawl net in the port of Gilleleje, Denmark, Baltic. June 2013. © OCEANA/ Carlos Minguell

**Table 1: Oceana fishing limits proposal for Baltic Sea stocks** (in tonnes, except for salmon, which is expressed as a number of individuals).

| Species                      | Fishing area | TAC 2015 <sup>19</sup> | Stock Status  | EC proposal 2016 | Oceana proposal 2016*                                |
|------------------------------|--------------|------------------------|---|------------------|--|
| <i>Gadus morhua</i>          | 22-24        | 15,900 (-6%)           | Below MSY $B_{lim}$ , $F > F_{MSY}$                             | -                | 7,797 (-51%)   |
| <i>Gadus morhua</i>          | 25-32        | 51,429 (-22%)          | Unknown   | 41,143           | 29,220 (-43%)**                                      |
| <i>Clupea harengus</i>       | 22-24        | 22,220 (+12%)          | Above MSY $B_{trigger}$   | 24,797           | 26,274 (+18%)  |
| <i>Clupea harengus</i>       | 25-29 and 32 | 163,451 (+45%)         | Above MSY $B_{trigger}$   | 177,505          | 176,527 (+8%)  |
| <i>Clupea harengus</i>       | 28.1         | 38,780 (+26%)          | Above MSY $B_{trigger}$ , $F > F_{MSY}$                         | 30,623           | 32,963 (-15%)  |
| <i>Clupea harengus</i>       | 30-31        | 158,470 (+15%)         | Above MSY $B_{trigger}$ , $F > F_{MSY}$<br>(30), undefined (31) | 103,254          | 103,254 (-35%)<br>(96,613 in SD 30 & 6,641 in SD 31) |
| <i>Sprattus sprattus</i>     | 22-32        | 213,581 (-11%)         | Above MSY $B_{trigger}$ , $F > F_{MSY}$                         | 184,336          | 205,000 (-4%)**<br>No fishing in area 25-26          |
| <i>Pleuronectes platessa</i> | 22-32        | 3,409 (0%)             | Undefined (data poor stock)                                     | 4,034            | 4,091 (+20%)   |
| <i>Salmo salar</i>           | 22-31        | 95,928 (-10%)          | N/A   | 105,850          | 89,300 (-7%)**                                       |
| <i>Salmo salar</i>           | 32           | 13,106 (0%)            | N/A   | 10,024           | 9,794 (-25%)   |

\* Brackets compare TAC difference in % from the previous year. A negative % indicates a reduction in the TAC; a positive % indicates an increase in the TAC.

\*\* Including Russian catches.

\*\*\* The scientific recommendation on total commercial catch is 116,000 salmon (incl. Russian catches), which corresponds to 89,300 salmon of ICES' estimate for "wanted reported catch."

<sup>19</sup> Fishing opportunities in the Baltic Sea for 2015, EC Press Release, 13 October 2014 ([http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/agricult/145101.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/agricult/145101.pdf))



## Cod (*Gadus morhua*)

### Species description

This epibenthic, pelagic species can be found in a wide variety of habitats, ranging from the coast to deeper areas. It forms aggregations during the day. Cod is an omnivorous species and its diet consists of invertebrates and fish, including its own juveniles. The Baltic cod stocks are divided into the western and eastern stock, separated by the island of Bornholm.

### Stocks management

Cod stocks have been subject to a management plan since 2007<sup>20</sup>. In 2014 the Commission presented a proposal for a new and revised fisheries management framework, the first multi-annual plan to be agreed under the reformed Common Fisheries Policy (CFP)<sup>21</sup>. However, the legislative process has been delayed due to stalled negotiations, resulting from differences in positions between the European Parliament (rightfully introducing changes to the final text that are much more in line with the reformed CFP and MSY objectives than the original proposal) and the Council of Ministers. Until it is adopted, the old cod management plan, which ICES identified as no longer able to be considered precautionary, is still in force.

### State of the stocks

A rapid decrease in the abundance of larger and older fish in the **eastern stock** is resulting in young and small individuals' dominance (and limited

geographical distribution). The **western stock** is suffering from a fishing mortality above sustainable levels and the biomass is below the  $B_{lim}$  (which means that the stock may be suffering from reduced recruitment), which indicated that the stocks are believed to be in a poor condition.

There are, however, positive signs for the years ahead. After more than a decade without saline water from the North Sea entering the Baltic, a major inflow came in December 2014. It brought large amounts of saline and well-oxygenated water into the Baltic Sea, which will most probably result in the renewal of the entire Baltic deep oxygen depleted water<sup>22</sup>. This favourable situation is supporting the recruitment of the eastern cod.

**Cod in the western Baltic Sea, Subdivisions (SD) 22-24:** The western stock has been recovering slowly and the SSB has increased in 2014–2015. However, the fishing mortality has been above the target for MSY (above  $F_{MSY}$  levels) and recruitment has been low.

ICES identified the mixing of eastern and western stocks that occurs at the borders of their distribution ranges as a major issue and introduced a new approach, which now gives advice separately for both stocks in Subdivision 24 (instead of only taking a fishing zone into account). To solve the problem posed by eastern cod caught in SD 24 (and to protect the western Baltic cod stock), ICES proposes setting a separate sub-TAC for SDs 22-23. This would ensure that eastern stock's catches allocated for the western stock will only be taken out in SD 24 where mixing occurs and will not hamper the survivability of fish in SDs 22 and 23.

For the first time this year, ICES decided to incorporate recreational catch data for western cod stock's status assessment. The estimation of recreational catches is a minimum estimate for the whole period as it only includes German data. The German data are considered reliable after 2005

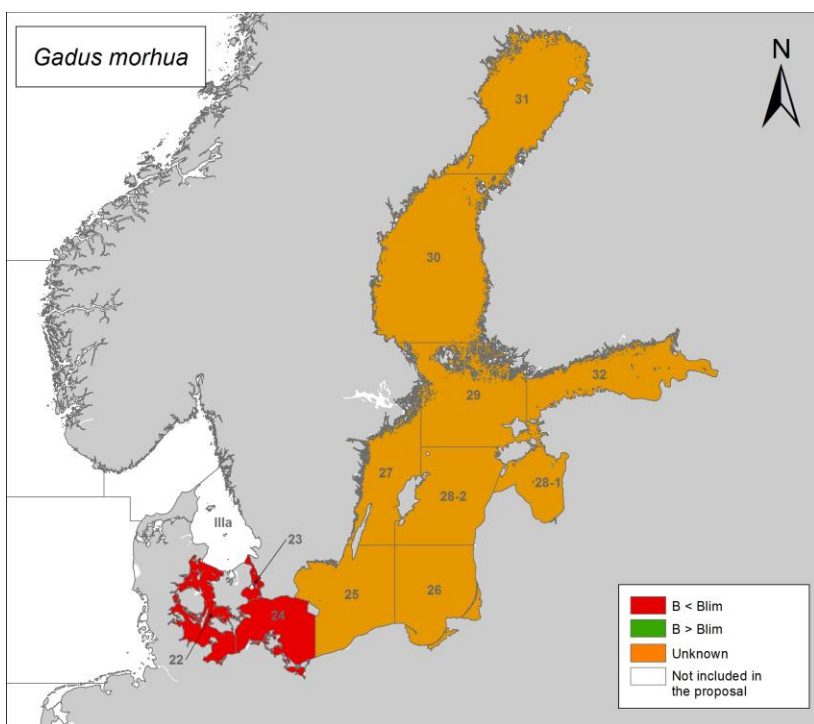
<sup>20</sup> EC No [1098/2007](#) establishing a multi-annual plan for the cod stocks in the Baltic Sea and the fisheries exploiting those stocks.

<sup>21</sup> [Proposal for a regulation establishing a multi-annual plan for the stocks of cod, herring and sprat in the Baltic Sea.](#)

<sup>22</sup> Mohrholz V., Naumann M., Nausch G., Krüger S. and U. Gräwe. 2015. Fresh oxygen for the Baltic Sea – An exceptional saline inflow after a decade of stagnation. *Journal of Marine Systems*, 148: 152–166 (<http://www.sciencedirect.com/science/article/pii/S0924796315000457>)

and were extrapolated for previous years. With these figures alone, recreational catches are at 2,558 tonnes, which is over 30% of the total proposed commercial quota. This calls for a well-thought-out management decision to either reduce the TAC or allocate part of it for recreational fishermen and to restrict their pressure on this stock until it can recover.

In accordance with the MSY framework, [ICES advises](#) that the total catch of Western Baltic cod in 2016 should not exceed 7,797 tonnes.



**Figure 1.** Cod stock status in ICES areas included in the proposal according to spawning stock biomass.

**Cod in the eastern Baltic Sea, Subdivisions 25-32:** While the eastern cod stock shows certain signs of improvement, it is still in a fragile state due to recent drastic declines in a number of larger and older fish. ICES recognized that fish larger than or equal to 30 cm have decreased between 2011 and 2014. There have also been a number of concerns regarding stock assessment *i.e.* the inability to determine age in eastern Baltic cod and the aforementioned rapid decrease in the abundance of larger cod in recent years.

Therefore, the ICES framework for category 3 stocks was applied, which means that the available knowledge is insufficient to apply the ICES MSY approach and the advice rule is therefore based on the precautionary approach<sup>23</sup>.

ICES advises on the basis of its knowledge-limited approach, whereby catches should be no more than 29,220 tonnes.

### Oceana recommendations

Considering the poor state of cod in the Baltic Sea, management measures that go beyond the management plan are needed for both eastern and western stocks.

**Cod in the western Baltic Sea, Subdivisions 22-24:** The TAC should not exceed 7,797 tonnes, according to the MSY approach. This means diverging from the current management plan (which can no longer be considered precautionary).

Oceana also recommends that in order to protect the local spawners in subdivision 22 further restrictions need to be implemented on the catches and no more than 65% of the western Baltic stock commercial catch should be taken in in Subdivisions 22–23

<sup>23</sup> ICES Advice basis, ICES Advice 2015, Book 1: [http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2015/2015/General\\_context\\_of\\_ICES\\_advice\\_2015.pdf](http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2015/2015/General_context_of_ICES_advice_2015.pdf)

**Cod in the eastern Baltic Sea, Subdivisions 25-32:** Decision makers and managers must ensure that the long-term ecosystem health becomes the highest priority when managing this stock. There are certain warning signs that call for immediate caution i.e. a sudden decrease in large individuals' abundance followed by this year's inability to determine fish age.

Therefore, it is crucial that the precautionary considerations laid down by ICES are followed by the decision makers. This means that the TAC should not exceed 29,220 tonnes.

**Table 2.** Comparative table of cod TACs (in tonnes) in ICES areas registered in the proposal, the Council decision for 2014 and 2015, stock status and the EC's and Oceana's proposals for 2016. Brackets compare TAC difference from the previous year (in %). Eastern stock proposal includes Russian share.

| Fishing area | Area Name     | TAC 2014      | TAC 2015      | Stock Status        | EC proposal 2016 | Oceana proposal 2016 |
|--------------|---------------|---------------|---------------|---------------------|------------------|----------------------|
| 22-24        | Western stock | 17 000 (-15%) | 15,900 (-6%)  | Below MSY $B_{lim}$ | -                | 7,797 (-51%)         |
| 25-32        | Eastern stock | 70 300 (+2%)  | 51,429 (-22%) | Unknown             | 41,143           | 29,220 (-43%)        |

## Herring (*Clupea harengus*)

### Species description

Herring is found throughout the Baltic Sea and constitutes a major part of the ecosystem. The species is distributed from the western Baltic Sea up to the Bothnian Bay. The western herring stock migrates between areas IIIa and IVa in the North Sea and the western part of the Baltic Sea. Herring biomass is dependent on the size of the cod stock, which is its main predator, and on the size of the sprat stock, with which it competes for food. For herring there are large differences in growth rates between regions: individuals are small in the northern areas and larger in the south.

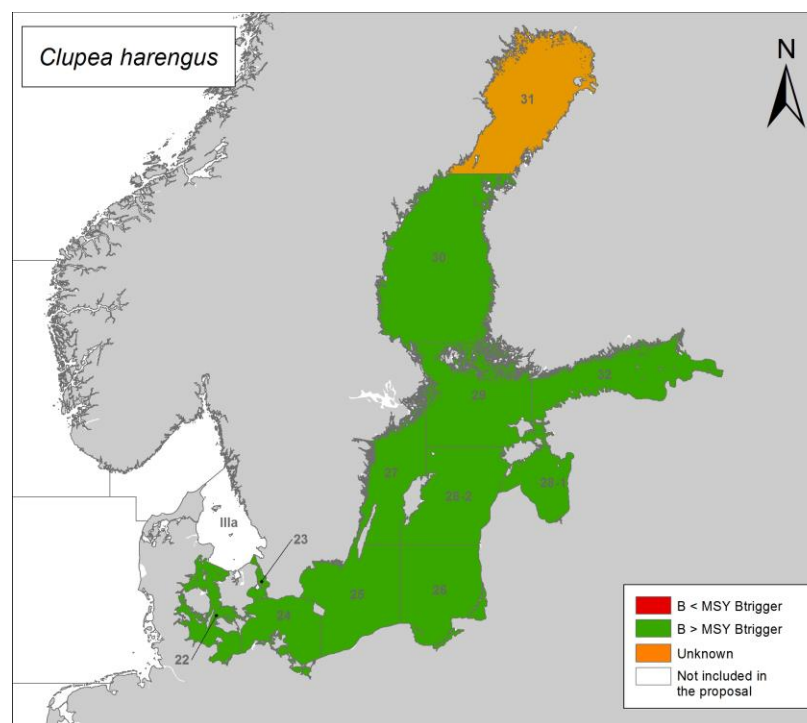
### State of the stocks

**Herring in division IIIa and Subdivisions 22-24:** The SSB of this stock is just above one third of what it was in the 1990s when the time series began, and has been decreasing since 2006, with the lowest ever level observed in 2011. Since then, it has increased somewhat, just above the precautionary level, and ICES now classifies the stock to be at full reproductive capacity. Fishing mortality was at an historical low (below  $F_{MSY}$ ) in 2014. The ICES advice in order to achieve MSY means that catches in the whole distribution area should be no more than 52,547 tonnes, for subdivisions 22-24 this means a TAC of 26,274 tonnes.

**Herring in central Baltic, excluding Gulf of Riga, Subdivision 25-29 and 32:** This stock is harvested sustainably according to ICES and is at full reproductive capacity with the SSB above the precautionary level. The SSB has been stable over the past few years. It should be noted, however, that the SSB is only about half the size it was in the 1970s when the time series began. As herring is one of the main foods for cod, the abundance of herring in subdivision 25 and 26 is important to the development of the eastern cod stock. ICES advises, on the basis of the MSY approach (and

taking stock mixing into account), that catches in 2016 should be no more than 196,600 tonnes.

Oceana supports an industry proposal presented at the BSAC meeting - to reduce the advised TAC. Taking this into consideration as well as the MSY approach and ICES advice, the TAC for 2016 should not exceed 176,527 tonnes.



**Figure 2.** Herring stock status in ICES areas included in the proposal, according to spawning stock biomass.

**Herring in the Gulf of Riga, Subdivision 28.1:** This stock is currently harvested just above  $F_{MSY}$  and the SSB has remained above the precautionary level since the 1980s. It is at its full reproductive capacity and the amount of unallocated catches has been gradually decreasing in recent years. It is believed that there have been no unallocated catches of Gulf of Riga herring since 2011.

ICES advises, on the basis of the MSY approach, that catches should be a maximum of 26,200 tonnes. Having reached a compromise with the fishing industry at a recent BSAC meeting, taking this stock's healthy status into consideration, Oceana supports a small increase over ICES advice, resulting in a proposed TAC of no more than 32,963 tonnes.

**Herring in the Bothnian Sea and the Bothnian Bay, Subdivisions 30 and 31:** The herring stock in Subdivision 30 has doubled in size since early 2000 and tripled since the 1980s and is now just shy of a record high level. The fishing mortality is low and has been just above  $F_{MSY}$  recently. Despite the high biomass levels, ICES has taken into account additional uncertainty concerns and revised the stock's estimated SSB, resulting in advised catches for 2016 that are no higher than 96,613 tonnes. It should be noted

that this stock is managed together with the stock in subarea 31 for which ICES has not performed any analytical assessment and ICES advises, on the basis of their approach for data-limited stocks, that catches should not exceed 6,641 tonnes. The combined management advice for these two stocks translates into 103,254 tonnes.

### Oceana recommendations

In Subdivisions 22-24 the total catches should not be higher than 26,274 tonnes. For central Baltic herring stock Oceana supports a TAC of 176,527 tonnes. For herring in the Gulf of Riga Oceana recommends a smaller reduction than the one proposed by ICES on account of the good overall health of the stock. The TAC should not exceed 32,963 tonnes. In Subdivision 30 and 31 it is important to bear in mind that the two stocks are in a different state and that the quality of the assessments differs significantly between them. Total landings in these two subareas should not exceed 103,254 tonnes, according to the MSY approach. Similar to last year, Oceana further recommends that the two areas be managed separately.

**Table 3.** Comparative table of herring TACs (in tonnes) in ICES areas registered in the proposal, the Council decision for 2014 and 2015, stock status and the EC's and Oceana's proposals for 2016. Brackets compare TAC difference from the previous year (in %).

| Fishing area | Area name                             | TAC 2014       | TAC 2015       | Stock Status  | EC proposal 2016 | Oceana proposal 2016 |
|--------------|---------------------------------------|----------------|----------------|---|------------------|----------------------|
| 22-24        | Western Baltic                        | 19,800 (-23%)  | 22,220 (+12%)  | Above MSY $B_{trigger}$                                       | 24,797           | 26,274 (+18%)        |
| 25-29 and 32 | Central Baltic excluding Gulf of Riga | 113,000 (+25%) | 163,451 (+45%) | Above MSY $B_{trigger}$                                       | 177,505          | 176,527 (+8%)        |
| 28.1         | Gulf of Riga                          | 30,700 (0%)    | 38,780 (+26%)  | Above MSY $B_{trigger}$<br>( $F > F_{msy}$ )                  | 30,623           | 32,963 (-15%)        |
| 30-31        | Bothnian Sea and Bothnian Bay         | 138,000 (+30%) | 158,470 (+15%) | Above MSY $B_{trigger}$ (30,<br>$F > F_{msy}$ ), unknown (31) | 103,254          | 103,254 (-35%)       |

## Sprat (*Sprattus sprattus*)

### Species description

Sprat is found throughout the Baltic Sea and constitutes a major part of the ecosystem. It is distributed from the Western Baltic to the Bothnian Sea. Its biomass is dependent on the stock status of cod, its main predator, and on the size of the herring stock, with which it competes for food.

### State of the stocks

**Sprat in Subdivision 22-32:** Although the fishing mortality for this stock is increasing it remained above  $MSY B_{trigger}$ . The SSB declined from a historical high in the late 1990s, but is above the precautionary level and considered to be at full reproductive capacity, according to ICES. Sprat is an important food item for cods. The development of the sprat stock is highly dependent on the cod stock through predator-prey interactions. ICES points out that in order to improve cod stocks' condition it is necessary to establish restrictions on sprat catches in the main cod areas (Subdivisions 25-26).

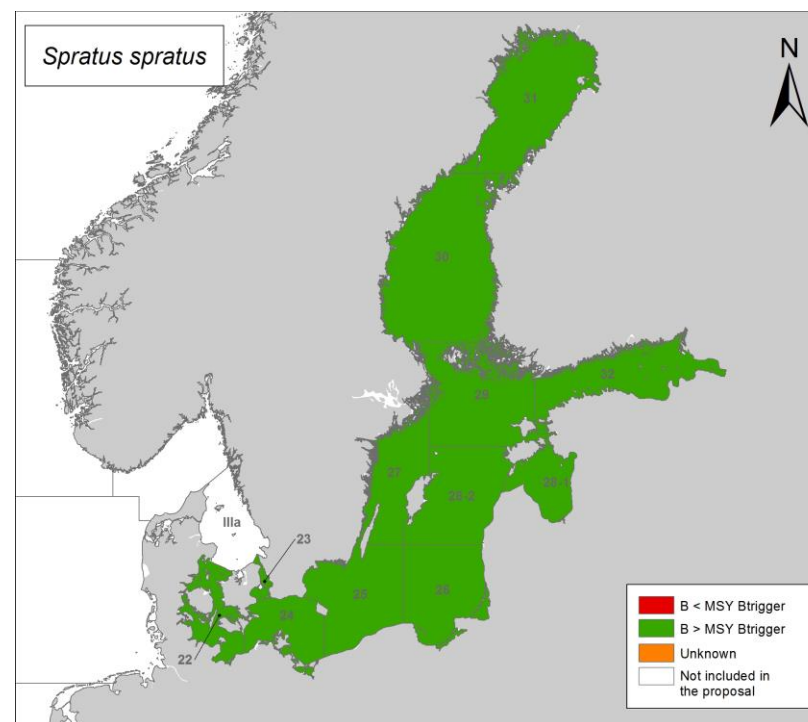
ICES recommends that catches should be no higher than 205,000 tonnes, according to the MSY approach. ICES further recommends that a spatial plan be developed with the aim of limiting the fisheries in subdivisions 25-26 where the eastern Baltic cod is distributed.

### Oceana recommendations

As with herring, sprat should be considered in a multi-species context since it is the major prey for cod. The density of cod in subdivision 25 is high, but as in the case of herring, the distribution of high biomasses of sprat is limited to areas outside the distribution area for cod. Sprat

fisheries in area 25-26 may therefore lead to increased food deprivation for cod.

Similar to last year, Oceana therefore recommends that **all directed sprat fisheries in area 25-26 are closed** and that the ICES recommendations on total landings be applied to areas outside of subdivision 25-26. For sprat in subdivision 22-32 the TAC should not exceed 205,000 tonnes, according to the MSY approach.



**Figure 3.** Sprat stock status in ICES areas included in the proposal, according to spawning stock biomass.

**Table 4.** Comparative table of sprat TACs (in tonnes) in ICES areas registered in the proposal, the Council decision for 2014 and 2015, stock status and the EC's and Oceana's proposals for 2016. Brackets compare TAC difference from the previous year (in %). Includes Russian share.

| Fishing area | Area name  | TAC 2014      | TAC 2015       | Stock Status                   | EC proposal 2016 | Oceana proposal 2016                           |
|--------------|------------|---------------|----------------|--------------------------------|------------------|--|
| 22-32        | Baltic Sea | 240,000 (-4%) | 213,581 (-11%) | Above MSY B <sub>trigger</sub> | 184,336          | 205,000 (-4%),<br>No fishing in areas<br>25-26 |

## Plaice (*Pleuronectes platessa*)

### Species description

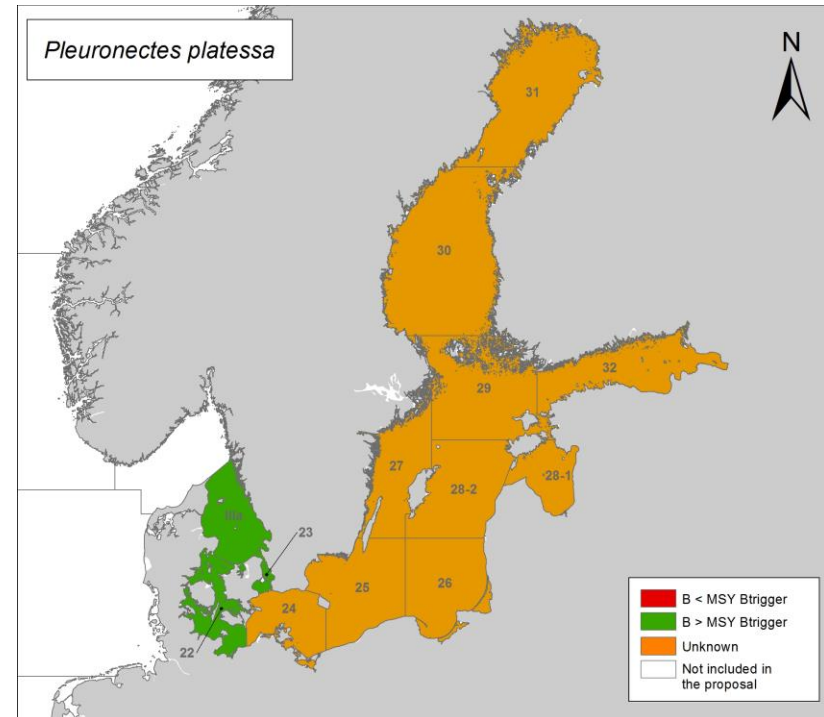
Plaice is distributed from the Belts and Sound in the west, and to the east towards the Gulf of Gdansk, and is sporadically found north, in the Gotland area<sup>24</sup>. Salinity levels largely determine its distribution. Nursery areas are located in shallow waters, down to a depth of 10 m, and spawning is known to occur in areas with higher salinity, such as the Bornholm and Arkona basins. Stock boundaries are not well understood due to the potentially large connectivity between areas where spawning migration, larval drift and juvenile homing occur, but three separate stocks have been identified.

### State of the stocks

The availability of data is scarce, resulting in limited knowledge of the exploitation rates and uncertain stock sizes.

**Plaice in Subdivisions 24-32:** This stock is considered by ICES as data-limited. Indicative trends show that the SSB has seen a five-fold increase since the early 2000s, and that fishing mortality is dropping. There are indications that discards are substantial, but a lack of sufficient information on the magnitude of this make estimations of total catches difficult. There are at least two plaice populations, one in SDs 21-23 and the other 24-32. The TAC is set for the Baltic-wide area (SDs 22-32). Given the data-limited status of the Baltic Sea stock (excluding the Sound and Belt Sea), precautionary considerations need to be taken into account.

<sup>24</sup> Report of the ICES/HELCOM Workshop on Flatfish in the Baltic Sea (WKFLABA). Available online at: <http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2010/WKFLABA/WKFLABA%202010.pdf>



**Figure 4.** Plaice stock status in ICES areas included in the proposal, according to spawning stock biomass.

### Oceana recommendations

Both plaice stocks are increasing and the biomass is high. Oceana recommends following the ICES precautionary approach and not increasing the TAC by more than 20%, which would result in catches no higher than 4,091 tonnes.



**Table 5.** Comparative table of plaice TACs (in tonnes) in ICES areas registered in the proposal, the Council decision for 2014 and 2015, stock status and the EC's and Oceana's proposals for 2016. Brackets compare TAC difference from the previous year.

| Fishing area | Area name  | TAC 2014 | TAC 2015 | Stock Status                | EC proposal 2016 | Oceana proposal 2016 |
|--------------|------------|----------|----------|-----------------------------|------------------|----------------------|
| 22-32*       | Baltic Sea | 3,409    | 3,409    | Undefined (data poor stock) | 4,034            | 4,091 (+20%)         |

\* The ICES advice area and EU management area do not match.

## Salmon (*Salmo salar*)

### Species description

Atlantic salmon is an anadromous species. The fish are born in fresh waters in rivers and migrate to the sea to eventually return to their natal river to reproduce. The juvenile phase is spent in the rivers, usually around one to four years, after which they normally spend one to three years on a feeding migration, mainly feeding on herring and sprat in the sea before returning to their natal river to spawn.

### State of the stocks

Salmon reproduce in rivers all over the Baltic Sea catchment area and there are many river-specific populations. The majority of rivers are in a poor condition, leaving just a few productive rivers in the Baltic Sea, with the strongest ones located in the Gulf of Bothnia. Despite the many different river-specific populations, salmon is only divided into two different management areas: the Main Basin and the Gulf of Bothnia, Subdivisions 22–31 and the Gulf of Finland, Subdivision 32. Loss of habitat due to river damming and other environmental deterioration, together with overfishing, have left salmon populations in a poor condition. The populations suffer from very poor post smolt (the first year in the sea) survival, the reason for which is currently unknown. Open sea fisheries take place on mixed populations, making it difficult to protect the weaker populations. Currently there is no management plan in force for salmon, as the former plan adopted by the International Baltic Sea Fishery Commission ceased to exist in 2005, and the current Commission proposal (COM/2011/0470 final), is waiting for adoption by the Council. Note that the TAC for salmon is expressed in the number of individuals and not in tonnes.

**Salmon in the Baltic, subdivisions 22-31:** ICES uses the Potential Smolt Production Capacity (PSPC) to evaluate the current status of wild salmon

stocks, meaning the production capacity of smolts calculated for each river on the basis of relevant river-specific parameters. MSY is estimated at 75% of the PSPC. **Twenty-nine rivers were evaluated by ICES and the MSY target is estimated to have been reached in only four rivers.**

In order to estimate the future status of the stocks, ICES has run five different scenarios on the likelihood of reaching MSY by 2020, based on commercial fishing efforts:

1. 116,000 salmon
2. 20% increase from scenario 1
3. 20% decrease from scenario 1
4. F 0.1 (COM proposal on multi-annual plan with 2 options: a) commercial catches and b) commercial and recreational catches)
5. No fishing

Current stock status has not changed markedly from last year's assessment. All the scenarios except scenario 5 gave very similar results. It is clear that even a complete closure of commercial fisheries will not lead to a recovery of weak salmon stocks. As ICES considers that scenario 1 will provide the upper limit of MSY exploitation, ICES recommends that total commercial catches in 2015 do not exceed 116,000 salmon. When estimations of unwanted and unreported catches are excluded, 89,300 salmon remain.

ICES is very clear in its advice that open sea fisheries in mixed populations are particularly problematic for the conservation of weak populations, and therefore recommends that salmon fisheries in the Baltic Sea are managed on a river-by-river basis.

ICES further states that conservation measures such as habitat restoration and the removal of physical barriers, apart from a reduction in fisheries, are needed in several rivers with weak salmon populations.

**Salmon in the Gulf of Finland, subdivision 32:** According to ICES, stocks in this area are in a very poor condition and the only wild stocks currently found are located in three Estonian rivers. In the rest of the area the stocks consist of a mixture of farmed and wild populations. According to ICES, there should be no fishing of wild populations and the total commercial catch should be a maximum of 11,800 salmon, leaving 9,794 salmon after unreported and unwanted catches have been subtracted. In order to avoid catches of wild salmon, ICES suggests fisheries be relocated away from rivers and river mouths supporting wild stocks, the relocation of fisheries away from sites likely to be on migration paths of wild salmon stocks, and efforts made to ensure the protection of wild salmon from poaching.

### Oceana recommendations

Salmon is listed as a species under the Habitat's Directive, inter alia, obliging Member States to ensure that its exploitation is compatible with favorable conservation status<sup>25</sup>. The obligations are limited to freshwater environments. However, considering that the species migrate between freshwater and marine environments, the TAC setting will inevitably affect its conservation status.

Oceana is of the opinion that the total commercial catch in Subdivisions 22-32 should be a maximum of 89,300 salmon (when the unreported and misreported as well as discarded catches are deducted).

Considering the alarming state of salmon in the Baltic Sea, Oceana urges Ministers to quickly agree on the following actions:

- Management measures must urgently be taken to improve habitats and remove migration barriers, as already agreed on in the Baltic Sea Action Plan<sup>26</sup>. Allocated funds for compensatory

restocking, from hydropower companies, for example, should instead be used to improve habitats given that these kinds of restocking measures add little or no improvement, and may even be harmful to Baltic Sea salmon stocks<sup>27</sup>.

For salmon in the Gulf of Finland, Oceana recommends that the TAC does not exceed 9,794 salmon (when the unreported and discarded catches are deducted).

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<sup>25</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Annex V.

<sup>26</sup> 2013 Copenhagen Ministerial declaration, paragraph 19(B) p. 10, available online at: <http://helcom.fi/Ministerial2013/ministerial-declaration>

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<sup>27</sup> For example, see Anna Palmé et al Compromising Baltic salmon genetic diversity - conservation genetic risks associated with compensatory releases of salmon in the Baltic Sea, Havs - och vattenmyndighetens rapport 2012:1. Available online at: <http://www.popgen.su.se/BaltSal/compromising-baltic-salmon-2012-18.pdf>

**Table 6.** Comparative table of salmon TACs (in number of individuals) in ICES areas registered in the proposal, the Council decision for 2014 and 2015, stock status and the EC's and Oceana proposals for 2016. Brackets compare TAC difference from the previous year (in %). Main Baltic Sea stock proposal includes Russian share.

| Fishing area | Area name       | TAC 2014 | TAC 2015      | Stock Status | EC proposal 2016 | Oceana proposal 2016  |
|--------------|-----------------|----------|---------------|--------------|------------------|-----------------------|
| 22-31        | Baltic Sea      | 107,000  | 95,928 (-10%) | N/A          | 105,850          | 116,000/89,300 (-7%)* |
| 32           | Gulf of Finland | 13,000   | 13,106 (0%)   | N/A          | 10,024           | 9,794 (-25%)          |

\* Total commercial catch is 116,000 salmon, which corresponds to 89,320 salmon if the unwanted and unreported catch is deducted.

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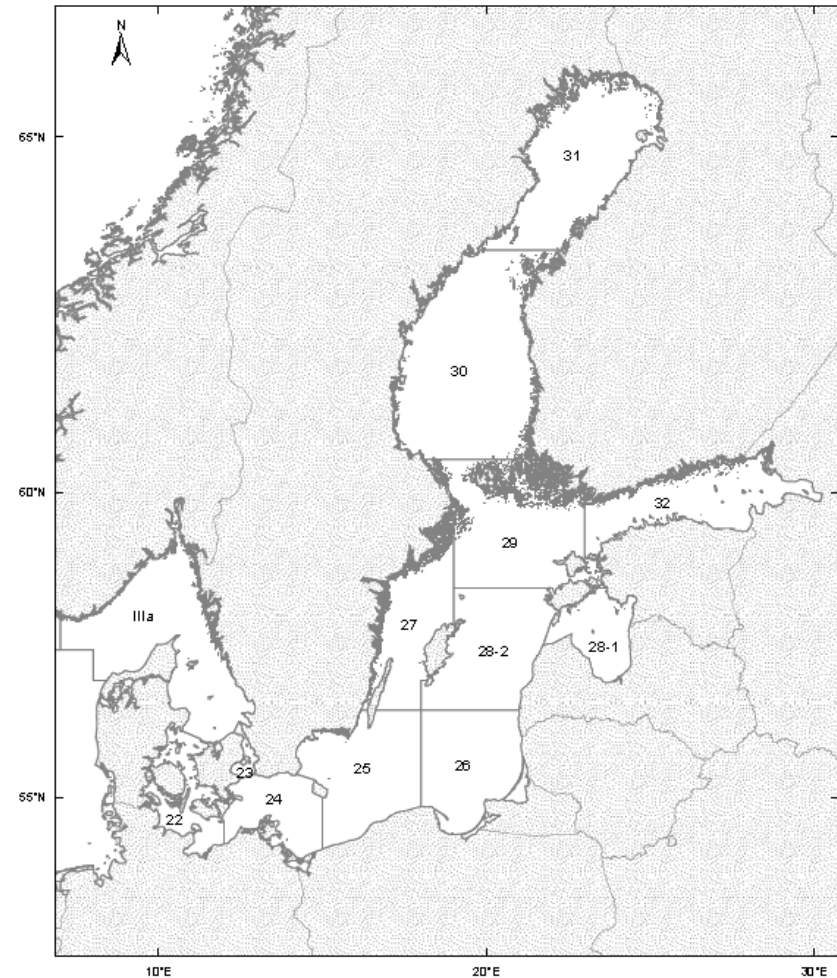
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Most of the species descriptions in this document have been taken from Fishbase ([www.fishbase.org](http://www.fishbase.org)).

## Description of ICES areas

| Subarea | Division | Subdivision | Description   |
|---------|----------|-------------|---|
| III     |          |             | Skagerrak, Kattegat, Sound, Belt Sea, and Baltic Sea, the Sound and Belt together also known as the Transition Area |
|         | III a    |             | Skagerrak (West) and Kattegat (East)  |
|         | III b,c  |             | Sound and Belt Sea or the Transition Area   |
|         |          | 22          | Belt Sea  |
|         |          | 23          | Sound   |
|         | III d    |             | Baltic Sea  |
|         |          | 24          | Baltic West of Bornholm   |
|         |          | 25          | Southern Central Baltic – West  |
|         |          | 26          | Southern Central Baltic - East  |
|         |          | 27          | West of Gotland   |
|         |          | 28          | East of Gotland or Gulf of Riga   |
|         |          | 29          | Archipelago Sea   |
|         |          | 30          | Bothnian Sea  |
|         |          | 31          | Bothnian Bay  |
|         |          | 32          | Gulf of Finland   |





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*Oceana is the largest international advocacy organization focused solely on ocean conservation. We run science-based campaigns and seek to win policy victories that can restore ocean biodiversity and ensure that the oceans are abundant and can feed hundreds of millions of people. Oceana victories have already helped to create policies that could increase fish populations in its countries by as much as 40 percent and that have protected more than 2.5 million km<sup>2</sup> of ocean. We have campaign offices in the countries that control close to 25 percent of the world's wild fish catch, including in North, South and Central America, Asia, and Europe. To learn more, please visit [www.oceana.org](http://www.oceana.org)*

European flounder (*Platichthys flesus*). Western Gotland Basin, Sweden. Oceana Baltic Sea Expedition, May 2012.  
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