

# **Proposal for Fisheries Management Measures for the protection of reef structures (H1170) in Natura 2000 sites located in Danish territorial waters in western Baltic Sea**

*Draft submission to the European Commission*

Draft proposal for Fisheries Management Measures under article 11 and 18 of Regulation (EU) No 1380/2013 of The European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC

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in the Western Baltic Sea*

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## **Summary**

For the implementation of the EU Nature directives (Habitat- and Birds Directives), Denmark has designated 97 marine Natura 2000 sites in Danish territorial waters of the Western Baltic, Kattegat, Skagerrak and the North Sea. A total of 65 sites have been designated for the protection of reef structures with the following habitat codes: H1170 (reefs) and H1180 (submarine structures made by leaking gasses). In general, the conservation status of reef structures in the Danish Natura 2000 sites are classified as unfavorable due to physical disturbances and high nutrient content in the water column.

The overall aim of the present proposal is to ensure adequate protection of reef structures from fishery, and thereby contribute to the obligation of achieving favorable conservation status for these habitat types in accordance with Article 6 (2) of the Habitats Directive.

The present proposal entails fishery management measures for a total of three sites:

One Natura 2000 site is located in the Danish Exclusive Economic zone in the Baltic Sea (outside 12 nautical miles):

1. Adler Grund og Rønne Banke (EU site code: DK00VA261)

Two Natura 2000 sites are located in the Danish part of the western Baltic Sea between the baseline and 12 nautical miles:

2. Centrale Storebælt og Vresen (EU site code: DK008X190)
3. Flensborg Fjord, Bredgrund og farvandet omkring Als (EU site code: DK00VA254)

A range of the Baltic countries have fishing opportunities in the Danish part of the Western Baltic Sea (outside 12 nautical miles) – Sweden, Germany, Estonia, Poland, Lithuania, Latvia and Finland in some degree. Sweden and Germany also have fishing rights inside 12 nautical miles.

Fishing activity with mobile bottom contacting gear is proposed to be prohibited in areas mapped as reefs (habitat code H1170). The reef structures mapped in the Natura 2000 sites will be protected from impact from fishing activity by placement of buffer zones around the reef structures.

Scientific advice from Aarhus University (Danish Centre for Environment and Energy) and the Danish Technical University (Institute for Aquatic Resources) and ICES alongside the site specific Natura 2000 management plans and mapping of marine habitats, serve as the basis for the proposed fishery management measures. These measures supplement the fisheries management measures submitted to the EU Commission in March 2015 for protection of reef structures in 10 Danish Natura 2000 sites located in the Danish part of the Kattegat/North Sea and Western Baltic Sea within the 12 nautical mile zone. These proposals were submitted as joint recommendations by Denmark, Sweden and Germany and adopted as a delegated act in summer 2015. The Delegated Act came into force 1 January 2016.

The Danish part of the western Baltic Sea is an important fishing area for especially Denmark, Sweden and Germany, and to some extent also to Poland. However, analyses of fishery data show that the proposed management measures will have a limited or no impact on current fishing activity when looking at the period 2011-2015.

In general, fishing activity does not take place in areas characterized as reefs in these sites. In 2011-2015, there have been no records of Swedish fishery in two of the three Natura 2000 sites. German fishery in the period 2010-2012 is primarily conducted with bottom contacting gear in all three sites. However, it is still important to ensure full protection of reef structures in the sites in accordance with the Habitats Directive, also for future fisheries. Polish fishery is limited in and around the site "Adler Grund og Rønne Banke". Estonian fishery is limited around the same site.

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It is the intention of the Danish government (initiating Member State) to take measures i.a. with respect to fishing activities exercised by *all* vessels including fishing vessels carrying the flag of other Member States of the EU. In order to apply these measures to *all* vessels, Denmark, as the initiating Member State, has in accordance with EP/Council Regulation (EU) No 1380/2013 of the Common Fisheries Policy (Basic Regulation), consulted Sweden, Germany, Poland, Estonia, Finland, Latvia and Lithuania, the Baltic Sea Advisory Council (BSAC), ICES, the Commission, national fishermen associations/organizations and NGOs.

The proposed fisheries management measures supplement regulation of e.g. extraction of sand and gravel (regulated through art 6.3) as well as on-going initiatives to reduce nutrient flow from terrestrial sources, as these are estimated to be the main pressures to the conservation status for reef structures in Danish waters.

*The present proposal is submitted to the European Commission jointly by Denmark, Sweden and Germany for the two sites located within the 12 nautical mile zone and by all BALTFISH Member States for the site located in the EEZ, in accordance with the Basic Regulation, Article 11 and 18. A similar proposal for fisheries management measures for protection of reef structures have been formulated for 4 Natura 2000 sites in the Danish part of the Kattegat.*

## Sammenfatning

Danmark har som led i implementeringen af EU's naturdirektiver (habitat- og fuglebeskyttelsesdirektivet) udpeget 97 marine Natura 2000 områder i den danske del af den vestlige Østersø, Kattegat og Skagerrak. Der er i alt udpeget 65 Natura 2000 områder for rev med habitatkoderne H1170 (rev) og H1180 (boblerev med udsivende metangas fra undergrunden). Revs bevaringsstatus er ifølge områdernes naturplaner generelt angivet som ugunstig som følge af fysisk påvirkning og højt næringsstofindhold i vandsøjlen.

Den overordnede målsætning med nærværende forslag er, i overensstemmelse med habitatdirektivets artikel 6, stk. 2, at sikre tilstrækkelig beskyttelse af revstrukturer i forhold til fiskeri som led i opnåelsen af gunstig bevaringsstatus for disse habitattyper.

Nærværende forslag omfatter fiskeriregulering i tre Natura 2000 områder.

Et område er lokaliseret udenfor 12 sømil grænsen i den dansk eksklusive økonomiske zone (EEZ):

1. Adler Grund og Rønne Banke (EU site code: DK00VA261)

To områder er lokaliseret mellem basislinjen og 12 sømilegegrænsen:

2. Centrale Storebælt og Vresen (EU site code: DK008X190)
3. Flensborg Fjord, Bredgrund og farvandet omkring Als (EU site code: DK00VA254)

Forslag til fiskeriregulering omfatter forbud mod anvendelse af bundgående redskaber i områder kortlagt som rev (habitatkode H1170). De kortlagte revstrukturer sikres beskyttelse mod fiskeriaktiviteter ved placering af en bufferzone omkring revene.

Videnskabelig rådgivning fra Danmarks Tekniske Universitet (Institut for Akvatiske Ressourcer), Aarhus Universitet (Nationalt Center for Miljø og Energi) samt ICES danner sammen med områdernes naturplaner og kortlægning, grundlaget for de fremlagte forslag til fiskeriforanstaltninger. De foreslåede fiskeriforanstaltninger supplerer de forslag, som blev fremsendt til EU Kommission i marts 2015 for beskyttelse af rev i 10 Natura 2000 områder i forhold til fysisk påvirkning som følge af fiskeri med bundslæbende redskaber. Områderne er placeret i den danske del af Kattegat/Nordsøen og vestlige Østersø indenfor 12 sømilegegrænsen. De danske forslag blev fremsendt til EU Kommissionen i form af en fælles henstilling fra Danmark, Sverige og Tyskland, og blev vedtaget som en delegeret retsakt sommeren 2015.

Sverige, Tyskland, Estland, Litauen, Polen (og i nogen grad også Letland og Finland) har fiskerirettigheder i den danske del af den vestlige Østersø. Sverige og Tyskland har også fiskerirettigheder indenfor 12 sømil fra den danske kyst. Østersøen er et vigtigt område for især dansk og tysk fiskeri. Analyser af fiskeriaktiviteter i Østersøen for perioden 2011-2015 viser dog, at de foreslåede fiskeriforanstaltninger ikke vil have betydende effekt på den måde fiskeri udøves i området. Der er i perioden 2011-2015 ikke registreret svensk fiskeri i de tre områder. Tysk fiskeri i perioden 2011-2015 med bundgående redskaber i alle tre Natura 2000 områder. Polsk fiskeridata viser fiskeri omkring området "Adler Grund og Rønne Banke", dog ikke i områder kortlagt som rev. Estiske fiskeridata viser fiskeri omkring samme område. Generelt set fiskes der ikke i områderne kortlagt som rev. I henhold til habitatdirektivet er det midlertidigt vigtigt, at kortlagte revstrukturer sikres fuld beskyttelse mod fysisk påvirkning, også i forhold til fremtidige aktiviteter.

Den danske regering ønsker (som initiativtagende medlemsstat), at gennemføre fiskeriforanstaltninger, som gælder *samtlige* fartøjer, herunder fartøjer fra andre flagstater, som udøver fiskeri i de pågældende Natura 2000 områder. For at de foreslåede foranstaltninger kan omfatte *samtlige* fartøjer, har Danmark i overensstemmelse med EP/Rådsforordning nr. 1380/2013 om den fælles fiskeripolitik (Grundforordningen), konsulteret Sverige, Tyskland, Estland, Polen, Letland, Finland, Litauen, det

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Rådgivende Råd for Østersøen (BSAC), ICES, EU Kommissionen, nationale fiskeriforeninger/organisationer og NGO'er.

Den foreslåede fiskeriregulering supplerer andre tiltag i relation til fx råstofindvinding og klapning samt reduktion af udledning af næringsstoffer fra terrestriske kilder.

*Nærværende forslag er fremsendt til EU Kommissionen i form af fælles henstilling af de danske, svenske og tyske fiskerimyndigheder for de to områder indenfor 12 sømilegrænsen og af alle de baltiske lande under BALTFISH samarbejdet for området i den danske EEZ. Fremsendelsen sker således i overensstemmelse med artikel 11 og 18 i Grundforordningen. Et tilsvarende forslag til fiskeriforanstaltninger for beskyttelse af rev i 4 Natura 2000 områder i den danske del af Kattegat er ligeledes udarbejdet.*

## **1. Introduction**

### **1.1 General remarks**

This document contains a proposal for regulation of fishing activities in the Danish part of the western Baltic Sea for the protection of reef structures designated under the Habitats Directive.

For the implementation of the EU Nature directives (Habitat<sup>1</sup> and Birds Directives<sup>2</sup>), Denmark has designated 97 marine Natura 2000 sites in Danish territorial waters in the western Baltic, Kattegat, Skagerrak and the North Sea, see Annex A for map of the Danish marine Natura 2000 network. A total of 65 Natura 2000 sites have been designated for reef structures (habitat code: H1170 - reefs and H1180 - submarine structures made of leaking gasses, also known as bubbling reefs).

The present proposal entails fisheries management measures in three Natura 2000 sites located in the western part of the Baltic Sea:

One Natura 2000 site located in the Danish Exclusive Economic zone in the Baltic Sea (outside 12 nautical miles):

1. Adler Grund og Rønne Banke (EU site code: DK00VA261)

Two Natura 2000 sites located in the Danish part of the western Baltic Sea between the baseline and 12 nautical miles:

2. Centrale Storebælt og Vresen (EU site code: DK008X190)
3. Flensborg Fjord, Bredgrund og farvandet omkring Als (EU site code: DK00VA254)

A similar proposal for fisheries management measures have been formulated for protection of reef structures in four Danish Natura 2000 sites located in the Danish part of the Kattegat/North Sea.

According to EP/Council Regulation (EU) No 2072/2015 Annex I, Sweden and Germany have fishing opportunities within 12 nautical miles in the Danish part of the western Baltic Sea. Council Regulation (EU) No. 106/2015, Sweden, Germany, Poland, Latvia, Lithuania, Estonia and Finland have fishing opportunities in the Danish EEZ of the Western Baltic Sea. It is the intention of the Danish government (initiating Member State) to take measures i.e. with respect to fishing activities exercised by *all* vessels including fishing vessels carrying the flag of other Member States of the EU.

This document covers the 11 information items of the Commission's guidelines from 2008 concerning development of proposals for fisheries management measures in marine Natura 2000 sites within the scope of the Common Fisheries Policy (see Annex D for an overview of how the present proposal has covered the information 11 items).

In order to apply these measures to *all* vessels, Denmark, as the initiating Member State, has in accordance with EP/Council Regulation (EU) No 1380/2013 of the Common Fisheries Policy (Basic Regulation), consulted Sweden, Germany, Poland, Estonia, Latvia, Finland, Lithuania, the Baltic Sea Advisory Council, ICES and the Commission, as described in section 3.2. *The present proposal is submitted to the European Commission jointly by the BALTFISH Member States (Denmark, Sweden and Germany for the sites located within the 12 nautical mile zone and for all Member States for the site in the Danish EEZ in accordance with the Basic Regulation, Articles 11 and 18.*

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<sup>1</sup> Council Directive 92/43/EEC, of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1992L0043:20070101:EN:PDF>

<sup>2</sup> Directive 2009/147/EC of the European Parliament and of the Council, of 30 November 2009 on the conservation of wild birds: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:en:PDF>

## **1.2 Overall aim of the present proposal**

The overall aim of the present proposal is to ensure adequate protection of designated reef structures from fishing activities and thereby to contribute to the obligation of achieving favorable conservation status for the habitat type H1170 in accordance with art. 6 (2) of the Habitats Directive, stating that Member States shall take appropriate steps to avoid the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated.

According to the Natura 2000 plans for the sites concerned, fishing activities with mobile bottom contacting gear is specified as a threat to reef structures<sup>3</sup>. In the site specific management plans, conservation status of the reef structures is given as 'unfavorable' due to physical disturbances and a relatively high level of nutrients in the water column<sup>4</sup>. It is generally agreed that fishing activity with mobile bottom contacting gear has an impact on reef structures – both in terms of physical disturbance to the reef structure itself as well as to the biodiversity found at the reef (Freese et al. 1999; Kaiser et al. 2002; ICES 2009; Howarth et al. 2015 and physical disturbance likely caused by trawling are also reported from a reef in Danish water; Dahl 2005)<sup>5</sup>. A detailed description of the three Natura 2000 sites is given in section 5.1.

Denmark (The Danish AgriFish Agency) is therefore proposing to restrict fishing activities with mobile bottom contacting gear in areas mapped as reefs (H1170). The content of the proposed fisheries management measures is explained in more detail in section 5.2. The proposed restrictions are identical and supplementary to fisheries management measures in four coastal Natura 2000 sites under Danish sovereignty, which came into force on 1 September 2013 and the delegated act, (EU) 2015/1778, concerning fisheries management measures in ten Natura 2000 sites in Danish waters. The proposals for fisheries management measures were sent to the EU Commission on 15 March 2015 in the form of joint recommendations by Denmark, Sweden and Germany. The Delegated Act came into force on 1 January 2016.

The present proposal has been peer reviewed by The Danish Technical University and Aarhus University (see section 3.1.4).

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<sup>3</sup> Link Management Plans: <http://svana.dk/natur/natura-2000/natura-2000-planer/natura-2000-planer-2009-15/>

<sup>4</sup> Adler Grund: management plan to be adopted during 2016 – also here reefs will be given in unfavorable conservation status.

<sup>5</sup> Freese, et al. 1999 – Effects of trawling on seafloor habitat and associated invertebrate taxa in the Gulf of Alaska. Marine Ecology-Progress series 182: 119-126; Dahl, K. 2005: Effekter af fiskeri på stenrevs algevegetation. Danmarks Miljøundersøgelser. 16 s. – Faglig rapport fra DMU nr. 526; Kaiser, M. J., Collie, J. S., Hall, S. J., Jennings, S. and Poiner, I. R. (2002), Modification of marine habitats by trawling activities: prognosis and solutions. Fish and Fisheries, 3: 114-136; ICES. 2009. Report of the EMPAS project (Environmentally Sound Fisheries Management in Protected Areas), 2006-2008, an ICES-BfN project. 123 pp.; ICES. 2006. Report of the Working Group on Ecosystem Effects of Fishing Activities (WGECO), 5-12 April 2006, ICES Headquarters, Copenhagen. ACE:05. 174 pp; Howarth et al. 2015 – Sessile and mobile components of a benthic ecosystem display mixed trends within a temperate marine reserve. Marine Environmental Research 107: 8-23.



### 1.3 Recommendations to be implemented

The present proposal applies to:

- A ban for fishing activity with mobile bottom contacting gear in areas mapped as reefs (H1170).

#### *Protection of reefs (habitat code H1170)*

The outlined zones with mapped reefs (H1170) and the surrounding buffer zones will be closed for the following mobile bottom contacting gear types, see table 1 below:

**Table 1: Gear codes for the banned gear types.**

<b>Gear types that are banned in the closed zones</b>	<b>Habitat code</b>	<b>Gear code Annex XI in EU Regulation No. 404/2011</b>	<b>International standard Classification of Fishing Gears (ISSCFG)</b>
Beam trawl	1170	TBB	TBB
Bottom trawl / otter trawl	1170	OTB, OTT, PTB, TBN, TBS, TB	OTB, OTT, OT, PTB, TB
Seine nets	1170	SDN, SSC, SX, SV	SB, SV, SDN, SSC, SPR, SX
Dredges	1170	DRB	DRB, DRH

The outline of the areas, in which these fishing activities are proposed to be banned, are given in section 5.1.1-5.1.3 and 6.2. Annex I gives the coordinates for the proposed buffer zones for the three Natura 2000 sites concerned.

## **2. Legal framework**

This chapter describes the legal framework of the present proposal; the Common Fisheries Policy, the "TAC's and Fishing opportunities for 2016" (Council Regulation 2072/2015, Annex C and the implementation of Natura 2000 in Danish waters by the Danish government.

### **2.1 Common Fisheries Policy**

According to the Common Fisheries Policy (Regulation No 1380/2013 (The Basic Regulation)) Article 11, Member States are empowered to adopt conservation measures not affecting fishing vessels of other Member States that are applicable to waters under their sovereignty or jurisdiction and that are necessary to comply with their obligations under Article 6 of Directive 92/43/EEC, Article 4 of Directive 2009/147/EC and Article 13(4) of Directive 2008/56/EC.

Where a Member State ("initiating Member State") considers that measures need to be adopted for the purpose of complying with the obligations referred to above, and other Member States have a direct management interest in the fishery to be affected by such measures, the European Commission shall be empowered to adopt such measures, upon request, by means of delegated acts. For this purpose cooperation between Member States having a direct management interest<sup>6</sup> is foreseen with a view to formulating a joint recommendation in agreement on draft fisheries management measures to be forwarded to the Commission.

The initiating Member State shall provide the Commission and the other Member States having a direct management interest with relevant information on the measures required, including their rationale, scientific evidence in support and details on their practical implementation and enforcement. Member States shall consult the relevant Advisory Councils.

The initiating Member State and the other Member States having a direct management interest may submit a joint recommendation within six months from the provision of sufficient information. The Commission shall adopt the measures, taking into account any available scientific advice, within three months from receipt of a complete request (Reg. 1380/2013, Articles 11 and 18).

Since other Member States have fishing opportunities in the Danish part of the western Baltic Sea, Denmark, as the initiating Member State, has taken steps to jointly propose a set of management measures, which will apply to all fishing vessels carrying out fishing activities in the concerned sites. For the two sites located within the 12 nautical mile zone, only Germany and Sweden have fishing rights, see section 2.2. For the site located in the Danish part of the EEZ of the Baltic Sea all BALTFISH Member States have fishing opportunities according to the "TAC's and Fishing opportunities for 2016", see Annex C.

The proposed fisheries management measures for protection of reef structures from fishery with certain gear types is based on the Commission's guidance document "*Fisheries measures for marine Natura 2000 sites – A consistent approach to request for fisheries management measures under the Common Fisheries Policy (2008)*"<sup>7</sup>. This document provides guidance on how Member States should prepare a proposal for fisheries management measures within the CFP framework, for delivering Natura 2000 conservation objectives.

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<sup>6</sup> Basic Regulation 1380/2013, art. 4, § 1, no. 22; "Member State having a direct management interest means a Member State which has an interest consisting of either fishing opportunities or a fishery taking place in the exclusive economic zone of the Member State concerned".

<sup>7</sup> Link Guidance document: [http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish\\_measures.pdf](http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf)

The guidance document provides the basis for the present proposal. The 11 information items given in the guidance document, provides the structure of the present proposal. Annex D gives an overview of how the present proposal deals with the 11 information items.

The following chapters describe how Denmark, as the initiating Member State, has taken the Commission's criteria for decision making into account – as well as the requirements for regional coordination in line with the new Basic Regulation.

## **2.2 Access to the Danish Natura sites**

Access to the concerned Natura 2000 sites depends on the location of the site.

Access to the concerned sites located in the Danish Exclusive Zone of the western Baltic Sea is outlined in Council Regulation (EU) No. 2072/2015<sup>8</sup>, which states that a number of Member States have access (fishing opportunities) in the Danish Exclusive Economic Zone in the ICES areas IIIc 22 and IIId 24 (Belt Sea and western Baltic), see Annex C. However, not all the listed Member States carry out fishing activity in the areas concerned (subdivision 22-24). Only Sweden, Germany, Poland and Estonia have so far forwarded fishery data.

According to EP/Council Regulation (EU) No 1380/2013 Annex I, Germany and Sweden have fishing rights within 12 nautical miles in the Danish part of the western Baltic Sea.

Denmark has therefore requested for fishery data for fishing activities carried out in the Belt Sea and the Danish part of the Western Baltic area as well as within the Natura 2000 sites for the period 2011-2015 – as required in the Commissions guidance document from 2008 (information item 5 and 6).

Fishery data has been requested for from all Member States around the Baltic Sea for the period 2011-2015

A detailed description of the fishing activities in and around the three Natura 2000 sites concerned is given in section 6.1 and 6.2 and Annex K-L.

## **2.3 Implementation of Natura 2000 in Denmark**

The Act on Environmental Goals<sup>9</sup> contains the legal basis for the designation of Natura 2000 sites according to the Habitats Directive (92/43/EEC) and the Birds Directive (2009/147) in Denmark. The overall objective of the Habitats Directive of maintaining and restoring favorable conservation status is nationally implemented in the Administrative Order No. 408/2007 together with the legal designation of the sites. Until management plans have been adopted and site specific conservation objectives formulated, the overall objective of favorable conservation status is to be followed.

According to the Environmental objective (§ 36 (6)), the Ministry of Environment and Food of Denmark is the responsible authority for the designation of Natura 2000 sites and for ensuring a representative network of protected sites for the protection of unique, threatened and characteristic marine habitats and species in Danish waters. Thus, the bilateral communication between Denmark and the European Commission, is handled by the Ministry of Environment and Food. The Ministry of Environment and Food is also the responsible authority for the national monitoring program (NOVANA) and for mapping marine

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<sup>8</sup> Link to Council Regulation: <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1467024866502&uri=CELEX:32015R2072>

<sup>9</sup> Link Act on Environmental Goals: <https://www.retsinformation.dk/Forms/R0710.aspx?id=127102>

habitats. The national monitoring program in relation to the present proposal is described in more detail in section 6.4.2.

In Denmark, the main provisions of the Habitats Directive article 6 for protection and managing the Natura 2000 sites are sector implemented, i.e. the competent authority is responsible for implementing the necessary measures identified through the Natura 2000 management plans. When it comes to the regulation of fisheries, the Ministry of Environment and Food is the responsible authority for the supplementary fishery regulation. In June 2008, the Fisheries Act was amended to include the Habitats Directives provisions<sup>10</sup>. Thus, in Denmark, the Ministry of Environment and Food is also the responsible authority for ensuring adequate protection of marine habitats and species in relation to fisheries.

This proposal seeks to fulfill the provision of article 6 (1) and 6 (2) of the Habitats Directive, through protection of reef structures from physical impact due to fishing activity.

### **2.3.1 Designation of Natura 2000 sites in Denmark**

Denmark has in the period between 1998 and 2011 designated 97 Natura 2000 sites for the protection of marine habitats and species. The designation has been done in accordance with the Administrative Order No. 408, 1 May 2007<sup>11</sup> and subsequent amendments thereof, which designates and sets up the overall conservation objectives as basis for the administration of Natura 2000 sites.

Annex B gives an overview of the designation of the concerned Natura 2000 sites from appointment as PSCI site until designation as SAC's.

In December 2011, nature management plans were adopted for the sites designated before 2010<sup>12</sup>. With the adoption of the plans, the sites were also designated as Special Areas of Conservation (SAC's). A second generation of nature management plans for all terrestrial and marine sites were adopted on 20<sup>th</sup> April 2016.

For sites designated before 2010, necessary fishery management measures must be formulated and implemented before 2016, whereas the timeframe is 2021 for sites designated later. The present proposal for fisheries management measures only contains fishery management measures for sites designated before 2010.

The European Commission has officially announced that Denmark has designated sufficient area to ensure a representative network of marine habitats and species, however, there is a scientific reserve regarding harbor porpoise in the western Baltic Sea. Once the results from the SAMBAH project have been evaluated and assessed, a formal decision will be taken as to whether additional areas need to be designated for harbor porpoise in the Danish part of the Baltic Sea<sup>13</sup>. The Danish marine Natura 2000 network covers approximately 18 % of Denmark's marine waters. A map showing the 97 marine Natura 2000 sites is given in Annex A.

The present proposal deals with the following three Natura 2000 sites: 'Adler Grund og Rønne Banke', 'Centrale Storebælt og Vresen', 'Flensborg Fjord, Bredgrund og farvandet omkring Als'.

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<sup>10</sup> Link Fisheries Act: <https://www.retsinformation.dk/Forms/r0710.aspx?id=121218>

<sup>11</sup> Link Administrative order no. 408, 1 May 2007: <https://www.retsinformation.dk/Forms/R0710.aspx?id=13043>

<sup>12</sup> Link Administrative order no. 1114, 25 November 2011:  
<https://www.retsinformation.dk/Forms/R0710.aspx?id=139270>

<sup>13</sup> Link outcome of SAMBAH project: <http://www.sambah.org/Docs/General/Non-technical-report-v.-1.8.2.pdf>

The table below gives information of the marine habitats for which the three Natura 2000 sites have been designated, as well as the legal framework for designation.

**Table 2. Description of the three Natura 2000 sites (SACs) that the present proposal deals with**

Site name	Marine habitats and species	Year of designation	National Administrative Order
Adler Grund og Rønne Banke	Reefs 1170 Sandbanks 1110	2009	Administrative order no. 408 of 1 May 2007 and subsequent amendments: Sets out the framework for designation, formulation of overall objectives and administration of Natura 2000 sites in Danish waters
Centrale Storebælt og Vresen	Reefs 1170 Harbor porpoises 1351 Some bird species*	1995 Expanded in 2010 and 2011	
Flensborg Fjord, Bredegrund og farvandet omkring Als	Reefs 1170 Sandbanks 1110 Harbor porpoises 1351 Some bird species*	1995 Expanded in 2010	

\* Parts of the site are designated as SPA for birds, designated species can be found in annex A.

### **2.3.2 Mapping of marine Natura 2000 sites**

Mapping of marine habitats forms the basis for protection of marine habitats in relation to fishing activities. In 2006, the Danish Nature Agency began the process of mapping marine habitat types within the Danish Natura 2000 network, starting with locating bubbling reefs (H1180) in Kattegat. In 2011-2012, the Danish Nature Agency published maps of reefs and sandbanks for 18 Natura 2000 sites in Kattegat and the Baltic Sea near the island of Bornholm<sup>14</sup>. One of the three Natura 2000 sites (Adler Grund og Rønne Banke) in the present proposal are based upon this first mapping exercise. The remaining two sites were mapped in 2012 and 2014 in a similar exercise.

The method of mapping marine Natura 2000 sites occurs in three steps. In 2011, each of the 18 Natura 2000 site was examined using sidescan sonars producing a complete picture of the rugosity of the substrate of the sea floor. On the basis of this data, an initial map was produced – the so-called 'first generation habitat map. The collected data was then thoroughly studied and any abnormality or structures in the sea bottom not easily classified as the various habitat types (reef, sandbanks etc.) was then examined further, using either a scuba diver or remote operated vehicle (ROV) equipped with video cameras. Through this process bubbling reefs were verified. In addition, a number of areas classified as reefs, sandbanks, etc. were visited to ensure accurate classifications and to study the biological content of the areas. On the basis of the complete dataset, habitat maps were then created showing where within the Natura 2000 sites, reef structures (H1170 and H1180) and sandbanks (H1110) are located.

Mapping of marine habitats in Danish Natura 2000 sites builds on the Danish definition of the habitat types designated under the Habitats Directive. According to the Danish definition of stone reefs, an area is classified as reef, if the coverage of hard substrate is above 25 pct. Areas with a cover of hard substrate of 10-25 pct. are also classified as reef, if the areas are directly connected to areas with a coverage of hard substrate of 25 pct. or more. For the site "Centrale Storebælt og Vresen" mapping of reef structures have been done by two different methods, where only the one in accordance with the Danish definition of reef

<sup>14</sup> Link: Report - Mapping of Natura 2000 sites in 2011 and 2012: <http://www2.naturstyrelsen.dk/habitatkortlaegning/>, <http://naturstyrelsen.dk/publikationer/2013/dec/marin-habitatnaturtype-kortlaegning/>, [http://naturstyrelsen.dk/media/136155/habitatkortl%C3%A6gning-2014\\_geus\\_dce.pdf](http://naturstyrelsen.dk/media/136155/habitatkortl%C3%A6gning-2014_geus_dce.pdf)

structures is used as the basis for this proposal of fisheries management measures, for the protection of reef structures.

### **3. Process**

This chapter describes the process from when the Danish initiative to protect reef structures (H1170 and H 1180) from fishing activities in marine Natura 2000 sites was launched in spring 2011 by the former Ministry of Food, Agriculture and Fisheries/Danish AgriFish Agency and until submission of fisheries management measures in the form of *'A Joint Recommendation' by Denmark, Sweden, Germany, Estonia, Poland, Finland, Latvia, Lithuania to the European Commission in [XX 2016]*.

The following two sections (3.1 and 3.2) describe the national and international coordination processes, which have taken place in the course of the last six years (2011-2016) in relation to the formulation of fisheries management measures for protection of reef structures in Danish Natura 2000 sites.

#### **3.1 National coordination and consultation**

National coordination and consultation with stakeholders in relation to Natura 2000 and fisheries take place in the so-called *'Natura 2000 Dialogue Forum'* as well as in the ministry's committees. In addition to formal consultations, informal consultations have also been held with stakeholders with the aim of discussing protection of reefs in relation to fisheries at a more technical level. Annex F gives an overview of the formal and informal consultations held since the initiative of protection of reefs from fisheries was launched in spring 2011.

##### **3.1.1 Natura 2000 Dialogue Forum**

The Natura 2000 Dialogue Forum was launched in May 2010 by the former Minister for Food, Agriculture and Fisheries in order to actively involve relevant stakeholders with an interest in fishery and Natura 2000 in the ministry's work with the implementation of the Natura 2000 directives. The Natura 2000 Dialogue Forum is chaired by the Danish AgriFish Agency and consists of representatives from NGO's, fishermen's organizations, research organizations and national authorities<sup>15</sup>. The Natura 2000 Dialogue Forum meets 2-3 times a year and is the forum where the Danish AgriFish Agency presents upcoming proposals for fisheries management measures and in general informs stakeholders of current state of play through open discussions and dialogue.

The rationale and principles on which the present proposals builds were initially presented to the Natura 2000 Dialogue Forum in November 2012, and have been discussed in a range of meetings since then. Latest on 23 May 2016. The Danish Fishermen Association PO are members of this forum, and therefore have been consulted on several occasions on the present proposal and methods applied, see also section 3.1.2 and 3.2.3 for dialogue with the Advisory Councils.

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<sup>15</sup> The following organizations participate in meetings in the Natura 2000 Dialogue Forum: The Nature Agency, WWF, Greenpeace, Oceana, Bird Life Denmark, The Danish Society for Nature Conservation, Danish Fishermen's Association PO and other local fishermen associations. Plus other NGOs with interests in the discussed topics are invited, e.g. The Danish Hunters Association and ASCOBANS. The Terms of References for the Natura 2000 Dialogue Forum can be found here:  
[http://naturerhverv.dk/fileadmin/user\\_upload/NaturErhverv/Filer/Fiskeri/Natura\\_2000\\_hav/Natura\\_2000\\_dialogforum/R\\_evideret\\_kommissorium\\_for\\_N2000\\_Dialogforum\\_020513.pdf](http://naturerhverv.dk/fileadmin/user_upload/NaturErhverv/Filer/Fiskeri/Natura_2000_hav/Natura_2000_dialogforum/R_evideret_kommissorium_for_N2000_Dialogforum_020513.pdf)

### *Consultations in relation to the present proposal*

In November 2012, the Danish Ministry of Environment/Danish Nature Agency published detailed maps of habitat types for one of the three sites concerned, as described in section 2.3.2.

In spring 2015, the Danish Ministry of Environment/Danish Nature Agency published detailed maps of habitat types for a range of sites, including the remaining two sites of the present proposal. Thus, all maps have been updated in order to take the new information into account. Updated maps have been presented to the *Natura 2000 Dialogue Forum* on November 16<sup>th</sup> 2012, May 8<sup>th</sup> 2015 and January 28<sup>th</sup> 2016.

In relation to the present proposal, the *Natura 2000 Dialogue Forum* has been consulted in a parallel session with concerned Member States, as well as the Advisory Council for the Baltic Sea, respectively. Besides the pre-consultation meeting held on 9 May 2016, the Danish AgriFish Agency presented the proposed fisheries management measures to the *Natura 2000 Dialogue Forum* on 23 May 2016, where also a summary of the pre-consultation meeting with Member States was given. The outcome of this consultation is given in section 3.2.3.

The *Natura 2000 Dialogue Forum* will be briefed on state of play regarding the Danish proposals on 27 October 2016 in relation to finalization of the two proposals with concerned Member States as well as the drafting of the joint recommendation.

### **3.1.2 Meetings with stakeholders**

Bilateral meetings have been held with the Danish Fishermen's Association PO during spring and autumn of 2015. The purpose of these meetings were to discuss the proposed ban for trawling with mobile bottom contacting gear in the 7 Natura 2000 sites located between the baseline and 12 nautical miles in the Kattegat (four sites) and western Baltic (three sites) as well as in the Exclusive Economic Zone. Furthermore, the consultations also aimed at obtaining a better understanding of the fishing pattern from smaller vessels in the 7 Natura 2000 sites concerned. The outcome of these meetings center around an in depth understanding of the fishing pattern in the discussed Natura 2000 sites – also for the smaller vessels not obliged to carry VMS<sup>16</sup>. These discussions support the analyses of fishing activity based on VMS, which the Danish AgriFish Agency in collaboration with DTU Aqua have carried out, assuring that the proposed fisheries measures will have no or low impact on current fishing activities for vessels above and below 12 meters.

### **3.1.3 Involvement of Parliament and Committees within the Ministry of Environment and Food**

The Danish Government has laid down national procedures for coordination of initiatives in relation to the implementation of EU's Natura 2000 directives and the reformed fisheries policy.

For initiatives, where Denmark act as the initiating Member State, The Danish Parliament must be informed of the intended draft proposals for fisheries management measures prior to regional consultation. All initiatives both launched by Denmark and by other Member States, where Denmark has direct management interest, will be coordinated nationally with stakeholders through the Ministry's national committees and *Natura 2000 Dialogue Forum*. The Danish Parliament is informed of these initiatives before joint recommendations are finalized for submission to the European Commission. In relation to present proposal, Parliament was informed in March 2016.

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<sup>16</sup> VMS (Vessel monitoring systems) is a satellite based monitoring system, which is used in commercial fisheries – positions, times, course and speed of the fishing vessels are monitored and stored.

### **3.1.4 Peer review of the proposal**

The present proposal has been peer reviewed by The Danish Technical University, Institute for Aquatic Resources, DTU Aqua and the University of Aarhus, Danish Centre for Environment and Energy. A peer review of the proposal ensures that, the proposed fisheries management measures, along side the rationale and principles on which the proposal builds, are scientifically sound. The peer review has also increased the scientific evidence in terms of references and ensured that relevant scientific studies have been included.

The outcome of the peer review can, besides minor editorial changes, be summarized to:

- i) scientific assessment of the documentation of conservation status in the concerned Natura 2000 sites
- ii) scientific assessment of the rationale for a ban for fishing activity with mobile bottom contacting gear in areas mapped as reefs code H1170 and H1180 and other type of fishery activity in areas mapped of bubbling reefs code H1180 in relation to the documented conservation status.

## **3.2 International coordination – regionalization**

The sections below describe the process that the Danish AgriFish Agency has pursued with respect to the present proposal in terms of international coordination and consultation with other Member States, the European Commission and relevant Advisory Councils, see Annex F-G.

### **3.2.1. Consultation with Member States and the European Commission**

The present proposal has been coordinated regionally in accordance with Article 11 and 18 of the reformed fisheries policy (Basic Regulation) through the established ad hoc working group in accordance with the Terms of Reference for the BALTFISH technical expert group.

Terms of reference for the BALTFISH technical expert group was agreed upon in 2014 by the Fisheries Directors. In accordance with the ToR's, Denmark, as the initiating Member State, has taken the lead in the ad hoc working group with Sweden, Germany, and Poland. *These Member States have finalized the proposal for fisheries management measures for protection of reef structures in collaboration.*

International coordination and consultations of the present proposal were launched back in March 2012, when Denmark in accordance with article 9 in Regulation no. 2371/2002 invited German and Swedish fishery- and environmental authorities, the Advisory Council for the North Sea, ICES and the Commission to a pre-consultation meeting in Copenhagen. A booklet containing all the relevant information was sent out in February 2012 containing information about the proposed fishery regulation.

The recent mapping of marine habitats in the Kattegat area in 2011, 2012 and 2015, has enabled the Danish AgriFish Agency to include protection of more reef structures in terms of area and number of sites in the present proposal.

A draft of the present proposal was sent in pre-consultation to the relevant authorities in Sweden, Germany, Poland, Finland, Estonia, Latvia and Lithuania alongside ICES, the Baltic Sea Advisory Council and the European Commission (DG MARE and DG ENVI) on 7 April 2016 prior to the scheduled pre-consultation meeting on 9 May 2016 – a process in line with the provisions of regionalization in the reformed fisheries policy.

The proposed management measures were in a parallel process sent to the members of the Danish *Natura 2000 Dialogue Forum*. A summary of the pre-consultation meeting on 9 May 2016 is given in Annex G. At the pre-consultation meeting in May, an ad hoc working group, to be chaired by the Danish AgriFish Agency, was established with Sweden, Germany and Poland. Meetings were held in June, August and September [October] 2016. The outcome of these meetings is given in Annex G.



Consultation with Finland, Estonia, Latvia and Lithuania has been done through email.

Denmark, Sweden and Germany have consulted their national fishermen associations/organizations. The Polish Fishery sector was consulted by the Baltic Sea Advisory Council. The Advisory Councils and NGOs have been consulted by Denmark as the initiating Member State, see section 3.2.3 and Annex F-H.

On 5 July 2016 a bilateral meeting was held in Brussels with representatives from the European Commission. DG Environment had requested their consultants to evaluate the Danish proposals. The evaluation and outcome of this consultation is given in Annex G.

### **3.2.2 Informal consultations with other Member States**

During the formulation of the present proposal, a range of informal meetings have been held with Sweden. The focus of the informal meetings with the Swedish authorities has been to discuss the Danish approach of buffer zones and to explore the possibility of a joint proposal for the Natura 2000 sites in the Kattegat area. The informal consultations have taken place on:

- 1 June 2011: meeting in Copenhagen, Denmark
- 17 January 2013: meeting in Göteborg, Sweden
- 10 October 2013: meeting in Göteborg, Sweden

In addition to the informal meetings with Sweden, on 18 November 2015 an informal meeting was held in Copenhagen with representatives from Poland.

The informal discussions between Sweden and Denmark have resulted in Denmark solitarily proposing fisheries management measures for Natura 2000 sites located between the baseline and 12 nautical miles as well as for sites located in the Exclusive Economic Zone of the western Baltic Sea. As already mentioned, this proposal and that of sites located in the Kattegat, are supplementary to the measures already forwarded to the EU Commission jointly by Denmark, Sweden and Germany early 2015. The same methods and rationale have been applied.

### **3.2.3 Consultations with Advisory Councils**

The Advisory Councils for the Baltic Sea and North Sea, respectively, have also been consulted. The Advisory Councils received the proposals parallel to Sweden, Germany, Estonia, Poland, Latvia, Finland and Lithuania, the Commission and the *Danish Natura 2000 Dialogue Forum*.

A summary of the consultation with the Advisory Councils and the *Natura 2000 Dialogue Forum* is given in Annex H.

## **4. Principles and rationale**

Member States are responsible for ensuring favorable conservation status of designated marine habitats and species in their respective Natura 2000 network and to take appropriate steps to avoid the deterioration of natural habitats and the habitats of species as well as the disturbance of the species for which the Natura 2000 site has been designated. In Denmark, this responsibility falls under the Ministry of Food, Agriculture and Fishery in relation to fisheries. At the Ministry of Environment and Food of Denmark, the Danish AgriFish Agency is responsible for formulation of fishery regulation as well as fishery control and enforcement of implemented management measures.

In spring 2011, the Danish AgriFish Agency launched the initiative to ensure adequate protection of reef structures designated under the Habitats Directive. Of the 97 marine Natura 2000 sites located in Danish waters, 65 sites have been designated for reefs (H1170 and H1180). A total of 30 of the 65 sites are located within the baseline and/or in waters under Danish sovereignty.

Based on scientific advice from DTU Aqua (the Danish Technical University, Institute for Aquatic Resources, Denmark has decided to protect reef structures (H1170 and H1180) from physical disturbances due to fishing activities with mobile bottom contacting gears (see section 5.2 and Annex E).

Several studies have focused on habitat sensitivity in relation to fishery and different gear types. There is scientific evidence in support of the negative impact mobile bottom contacting gears have on reef structures (H1170), hence the usage on any mobile towed gear would result in an unacceptable risk to the conservation status of this feature (Dahl 2005; Kaiser et al. 2002; Cook et al. 2013<sup>17</sup>; Kailas et al. 2016). In order to reduce this risk, it was decided to prohibit the usage of mobile bottom contacting gears in areas mapped as reefs. Majority of studies have found low sensitivity between gillnet fishery and stone reef structures (BALTFIMPA project, Shester and Micheki (2011)), however, majority of studies focus on impact from mobile bottom contacting gears, which are dragged along the sea floor. It is unlikely that static gears at moderate levels of fishing effort will have a significant effect on the stone reefs (H1170). In the sites concerned, fishing effort is low, see section 6 for more information on fishing patterns. Thus, no additional management in relation to fishery is considered needed for this habitat type to achieve favorable conservation status.

DTU Aqua has advised, that a buffer zone equivalent to 6 times the average water depth (meters) will ensure adequate protection of these reef structures from direct impact from fishing activities, see Annex E. The same method has been applied in the National Administrative Order of 28 August 2013<sup>18</sup>, which applies to protection of reef structures in four Danish coastal Natura 2000 sites. In June 2013, ICES published a general advice on evaluation of the appropriateness of buffer zones, see Annex E. The ICES advice is in line with scientific advice from DTU Aqua.

The rationale behind the buffer zone method is that the reef structures in their full extent need protection from mobile bottom contacting fishing gears - from current fishing activities as well as potential future fishing activities. Modern fishing vessels are equipped with advanced technology that allow them to fish with high precision. In addition, other technologies allow integration of buffer zones in the GPS systems of fishing vessels. As a result, buffer zones eliminate any potential threat from trawls to the reef structure during fishing – even when vessels turn. The overall aim of the present proposal is protection of reef structures from direct physical disturbance from fisheries with mobile bottom contacting gears, which according to the Danish Natura 2000 management plans is adversely affecting the conservation status of

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<sup>17</sup> Cook R, Farinas-Franco JM, Gell FR, Holt RHF, Holt T, Lindenbaum C, Porter JS, Seed R, Skates LR, Stringell TB, Sanderson WG. 2013. The substantial first impact of bottom fishing on rare biodiversity hotspots: a dilemma for evidence-based conservation. PLOS ONE 8(8), 10 pp.

<sup>18</sup> Link Administrative order no. 1048 of 28 August 2013:  
<https://www.retsinformation.dk/Forms/R0710.aspx?id=158209>

these habitat types. Several scientific studies worldwide state that fishery with mobile bottom contacting gears have a negative impact on reef structures (Dahl 2005; Kaiser et al. 2002; ICES 2009)<sup>19</sup>. The buffer zone is also expected to limit the risk of resuspension of sediment due to fishing with mobile bottom contacting gears. Taking habitat type, depth and location of reef structures into account, resuspension of sediment is assessed to be relatively low.

Over time, the proposed fisheries management measures are believed to significantly contribute to the improvement of the conservation status of these habitat types (e.g. Dahl 2005; Fenberg et al. 2012; Collie et al. 2000)<sup>20</sup> and, ultimately, to the achievement of favorable conservation status, see section 6.4.3 for more information on expected effects and management of other pressures. Full protection of reef structures from fisheries is indicated as a priority in all the Danish Natura 2000 management plans for sites designated for reefs.

When formulating the present proposal, the following principles have been the focal points:

*1. Sound scientific basis*

Any proposal for fisheries management measures must be based on scientific evidence and advice and take all relevant information into account. DTU Aqua has provided scientific advice in relation to the principles and methods pursued in the present proposal, which is supported by ICES in terms of buffer zones.

Spatial distribution of the habitat types is central when designing fisheries management measures. The Danish Nature Agency is the responsible authority in Denmark for mapping the marine Natura 2000 sites. In April 2015, the Danish Nature Agency published the last detailed maps of Natura 2000 sites in inner Danish waters – 39 sites in total (37 designated for reefs). The present proposal builds upon these detailed maps.

*2. Stakeholder involvement*

An important element of the process of formulating fisheries management measures is stakeholder involvement – nationally as well as internationally.

In Denmark, national coordination with stakeholders takes place in the '*Natura 2000 Dialogue Forum*', which was established in spring 2010 to ensure coordination with all stakeholders from green NGOs to fishermen's associations/organizations, research bodies, authorities etc. The proposed fisheries management measures have been discussed in the forum at all meetings since spring 2011.

Internationally, any proposal for fisheries management measures, which might affect other Member States must at an early stage be presented to ensure regional coordination. The present proposal and buffer zone approach was initially presented to German and Swedish authorities in March 2012 at a meeting in Copenhagen, where also the North Sea Advisory Council, ICES and the European Commission participated. The present proposal has been discussed with Sweden, Germany and Poland in the established ad hoc working group comprising of representatives from fisheries and environmental departments.

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<sup>19</sup> Dahl, K. (2005): Effekter af fiskeri på stenrevs algevegetation. Danmarks Miljøundersøgelser. 16 s. – Faglig rapport fra DMU nr. 526; Kaiser, M. J., Collie, J. S., Hall, S. J., Jennings, S. and Poiner, I. R. (2002), Modification of marine habitats by trawling activities: prognosis and solutions. Fish and Fisheries, 3: 114–136; ICES. 2009. Report of the EMPAS project (Environmentally Sound Fisheries Management in Protected Areas), 2006-2008, an ICES-BfN project. 123 pp.

<sup>20</sup> Dahl, K. (2005): Effekter af fiskeri på stenrevs algevegetation. Danmarks Miljøundersøgelser. 16 s. – Faglig rapport fra DMU nr. 526; Fenberg P.B.\*, Caselle J., Claudet J., Clemence M., Gaines S., García-Charton J.A., Gonçalves E., Grorud-Colvert K., Guidetti P., Jenkins S., Jones P.J.S., Lester S., McAllen R., Moland E., Planes S. and Sørensen T.K. (2012) The science of European marine reserves: status, efficacy and needs. Marine Policy 36(5), 1012-1021; Collie, J. S., Hall, S. J., Kaiser, M. J. and Poiner, I. R. (2000), A quantitative analysis of fishing impacts on shelf-sea benthos. Journal of Animal Ecology, 69: 785–798.

Stakeholders have been involved in the current process since 2011 and actively taken part in the previous regional coordination process with Sweden and Germany concerning fisheries management measures in 10 Natura 2000 sites (delegated act came into force 1 January 2016).

*3. Regional coordination*

According to the Basic Regulation Articles 11 and 18, Member States may submit joint recommendations on conservation measures that are necessary for the purpose of complying with their obligations under the Common Fisheries Policy (Reg. No 1380/2013 (The Basic Regulation)). The present proposal is jointly presented to the European Commission after regional coordination with Member States having a direct management interest within the framework of the Terms of Reference for the BALTFISH technical expert group/ad hoc working group. A process, which was launched in March 2012 with a pre-consultation meeting in Copenhagen followed by an additional pre-consultation meeting in Copenhagen in May 2016 and meetings in the established ad hoc working group with Sweden, Germany and Poland.

*4. Transparency*

Transparency of data and the methodology which is used is important, and can only be achieved through stakeholder involvement, regional coordination and use of scientific advice. The data used to describe fishing patterns and effort is based on log book and VMS data from the involved countries. In addition to VMS and log book data, information of fishing patterns for smaller Danish vessels (<12 meters) has also been used. In order to collect information of fishing patterns for smaller Danish vessels, consultations have been held with the Danish Fishermen Association during 2015/ 2016.

*5. Proportionality*

The proposed management measures must balance sustainable exploitation of resources and the need to conserve important habitats and species. This means that the proposed measures must comply with the proportionality principle so they do not go further than necessary to ensure the needed protection of the mapped reefs within the framework of the Habitats Directive. Furthermore, no other and less burdening measures must be able to provide the same level of necessary protection seen from a scientific and practical point of view. Consequently this means that fishery is not prohibited in these areas, unless it is carried out with gears that potentially can damage the mapped reefs. At the same time, the proposed management measures should be possible to control and enforce. The present proposal concerns protection of reef structures. For sites where the reef structures cover the majority of the site – the entire site is closed for fishing activities, whereas for other sites, the area closed for fishing contains the reef itself and the surrounding 240 meter buffer zone – given as 6 times water depth set at an average depth of 40 meters for the area.

*6. Non discrimination*

The proposal must ensure that measures are applied in a non-discriminatory manner. A coordinated approach between Member States having direct management interests is key to ensuring non-discrimination of fleets affected by the proposed fisheries management measures. This coordination must follow the steps laid down in the Basic Regulation of the Common Fisheries Policy, thus ensuring a level playing field for the fishing sector potentially affected. The present proposal contains fisheries management measures for three sites located in the Danish part of the Western Baltic Sea, where Sweden, Germany and Poland among others have fishing rights/opportunities. Thus, the proposed fisheries management measures must be coordinated in accordance with the Common Fisheries Policy (articles 11 and 18).

## **5. Scope of the present proposal**

In the first plan period (2010-2015), special focus should be given to the protection of reef structures from any form of physical disturbances. The Danish AgriFish Agency launched the initiative to protect reef structures from impact from fishing activity back in spring 2011 alongside regulation of other activities e.g. sand and gravel extraction. In the second plan period (2016-2021), the on-going work with protection of reef structures is to be continued.

The present proposal aims at ensuring adequate protection of reef structures in three Natura 2000 sites located in the Danish part of the western Baltic Sea: "Adler Grund og Rønne Banke", "Centrale Storebælt og Vresen" and "Flensborg Fjord, Bredgrund og farvandet omkring Als". The present proposal is part of a larger plan to implement the Habitats Directive in relation to the protection of reef structures in the 65 Natura 2000 sites designated for reefs in Danish waters. Denmark has designated 97 marine Natura 2000 sites, of which 65 have been designated for reefs H1170 and/or H1180.

The present proposal is identical to a similar proposal for the protection of reef structures in Natura 2000 sites located in the Kattegat. These two proposals are further identical to two other proposals concerning fisheries management measures (3 sites in the Kattegat and 7 sites in the western Baltic Sea), which have already been forwarded to the EU Commission as a joint recommendation by Denmark, Sweden and Germany and adopted as a delegated act in summer 2015. The Delegated Act came into force 1 January 2016.

The principles and methods used in the present proposal and that of the Kattegat, are furthermore identical to those used in the first national administrative order for protection of reefs in coastal Natura 2000 sites, which came into force on 1 September 2013, where the first fisheries management measures for protection of reefs were launched. The national administrative order prohibits the usage of mobile bottom contacting gear in four coastal Natura 2000 sites. These measures further supplement the delegated act, (EU) 2015/ 1778.

The following two sections describe the Natura 2000 sites in question and the proposed fisheries management measures to be adopted in order to secure adequate protection of reef structures from fishing activities in accordance with the Habitats Directive, article 6 (1) and 6 (2). The expected outcome and benefit in relation to conservation status is given in section 6.4.3.

### **5.1 Description of the Natura 2000 sites concerned**

The present proposal concerns three Natura 2000 sites located in the Baltic Sea:

- Adler Grund og Rønne Banke (EU site code: DK00VA261)
- Centrale Storebælt og Vresen (EU site code: DK008X190)
- Flensborg Fjord, Bredgrund og farvandet omkring Als (EU site code: DK00VA254)

The three Natura 2000 sites and the habitat types found in the areas are described in 5.1.1-5.1.3.

The sites are designated for not only the protection of reef structures (H1170) – two of them are also designated for the protection of sandbanks (H1110). Centrale Storebælt and Flensborg Fjord are also designated for the protection of harbor porpoises (H1351) and a range of sea bird species.

The conservation status for the reef structures (H1170) is given as unfavorable for all three Natura 2000 sites. The annual assessment reports on environmental status do not contain information in relation to physical disturbances of reefs, however, it is generally accepted and documented, that fishing activities

with mobile bottom contacting gear can have an irreversible impact on reef structure and function (Dahl 2005; Kaiser et al. 2002; ICES 2009)<sup>21</sup>.

The aim of the present proposal is to achieve the overall conservation objective of favorable conservation status, since site specific conservation objectives have not yet been formulated for Danish marine habitats (see section 2.3). In December 2012, the former Danish Ministry of Environment made the Natura 2000 management plans public. The management plans contain a description of the habitats and species for which the site has been designated, the current conservation status of these habitats and species, possible threats and actions to be taken. In all management plans for marine Natura 2000 sites designated for reefs – actions should be taken in relation to fishing activities with mobile bottom contacting gear.

Other activities such as extraction of sand and gravel, which also negatively affect the physical structure and function of reef structures in general, is also being regulated in Natura 2000 sites. Furthermore, on-going initiatives seek to reduce the flow of nutrients from terrestrial sources. Thus, regulation of fishery is one of several initiatives which together is expected over time to improve the conservation status of reef structures in Danish waters.

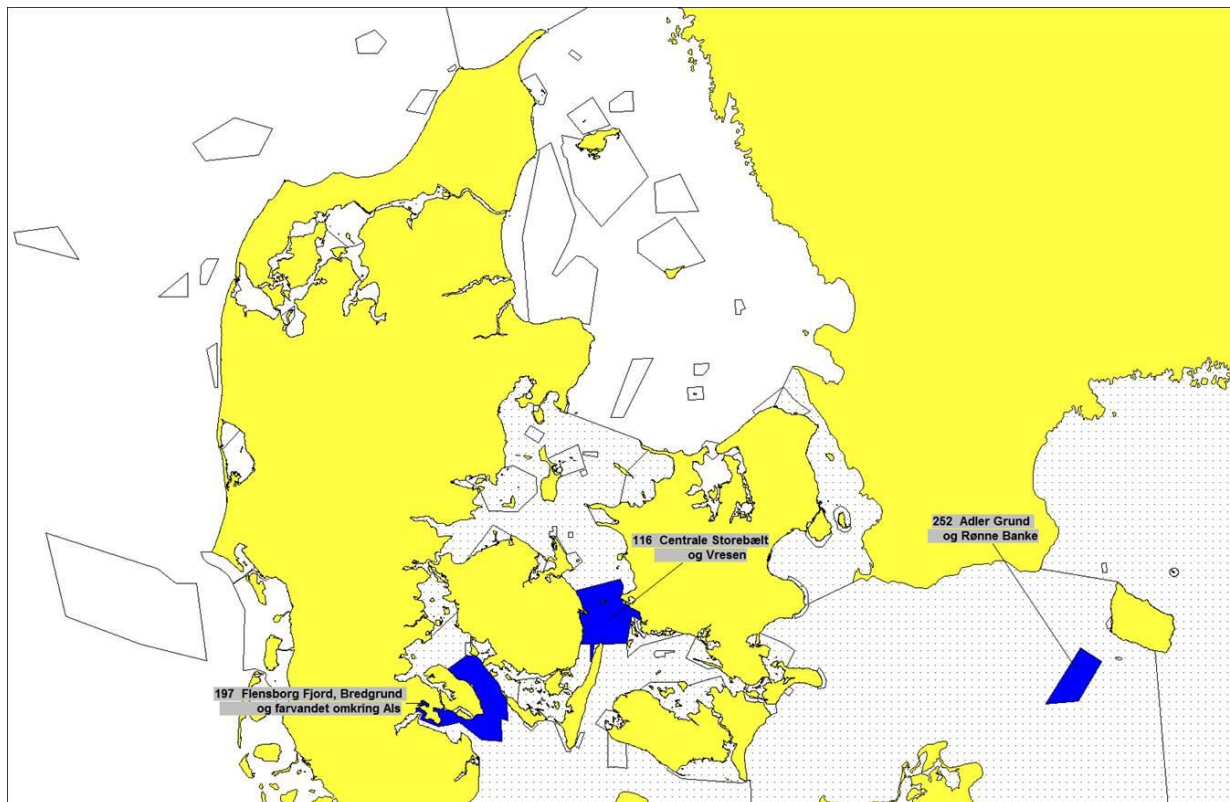
The present proposal solely concerns protection of reef structures. Assessment of the need for fisheries management measures for the protection of harbour porpoise and sandbanks is yet to be made. On-going work on harbour porpoise by-catch and estimation of bycatch rate and amount in Danish waters, as well as identification of hotspot areas are important information needed for the assessment, as is more information on impact of fishing gears on sandbanks and their functions. Thus, Denmark pursues an adaptive management strategy whereby necessary fisheries management measures are formulated as the required knowledge and assessments are made available. The marine habitats and species which need urgent attention are protected first, e.g. reef structures.

State of play of the implementation of Natura 2000 in relation to fishery in Danish waters are given in annex A.

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<sup>21</sup> Dahl, K. (2005): Effekter af fiskeri på stenrevs algevegetation. Danmarks Miljøundersøgelser. 16 s. – Faglig rapport fra DMU nr. 526; Kaiser, M. J., Collie, J. S., Hall, S. J., Jennings, S. and Poiner, I. R. (2002), Modification of marine habitats by trawling activities: prognoses and solutions. Fish and Fisheries, 3: 114–136; ICES. 2009. Report of the EMPAS project (Environmentally Sound Fisheries Management in Protected Areas), 2006-2008, an ICES-BfN project. 123 pp.

**Figure 1. Map of marine Danish Natura 2000 sites (white areas). Blue areas indicate the location of the three Natura 2000 sites, which the present proposal covers. Shaded area indicates the boundaries of the western Baltic Sea**



The present proposal covers three Natura 2000 sites located in the Danish part of the western Baltic Sea, as shown in figure 1. The Baltic Sea flows into the Kattegat through the Sound, the Little Belt and the Great Belt and from there to the North Sea. The western part of the Baltic Sea comprises of ICES subdivisions 22-24, from the southern boundary of the Kattegat to the island of Bornholm.

Two of the Natura 2000 sites are located in the Belt Sea, which consists of the straits of the Great Belt and the Little Belt, as shown in figure 1. The Great Belt is defined as the strait between Zealand and the island of Fyn, which connects the Kattegat to the Baltic Sea. The third Natura 2000 site is located just west of Bornholm.

The reef structures in the western Baltic Sea comprises of stone reef and biogenic reef structures (H1170). In the western Baltic Sea, reef structures made of blue mussels are rather common. Fishery for blue mussels takes place in the Little Belt and northern part of the Belt Sea, however not in any of the Natura 2000 sites the present proposal covers.

The analysis of fishery activity – both in relation to target species and VMS effort has in the present proposal only been conducted for the Baltic Sea (subdivisions 22-24), which is in line with the ICES fish stock assessments and variation seen in the target species and gears used.

The western Baltic Sea is an important fishing area for Denmark, Sweden and Germany. Target species range from cod, eel, herring, plaice to sprat. Sand-eel has in the last years become increasingly important in the area. In general fishing activity in the western Baltic Sea (given as catch value) has decreased by approximately 40 pct. Cod is the main target species, however. The reduction in landings registered for the area is attributed to a reduction in fishery for cod. The main reduction in cod landings was seen in 2009, where after landings have been somehow stable. Fishery activity in the western Baltic Sea is largely conducted by smaller vessel below 15 meters. In the eastern Baltic Sea (subdivision 25), several countries

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in the Western Baltic Sea*

are involved in the fisheries as this area is the main area for cod fishery. In this area, fishery in the period 2007 to 2012 has been quite stable however, and slightly lower in 2013. Cod is the main target species followed by herring and sprat.

Several initiatives have been taken for the protection of cod. In 2009, Denmark and Sweden agreed on a cod fishing ban in the northern part of the Sound (subdivision 23) in the months of February and March. Fishery in the eastern Baltic Sea (subdivisions 25-32) are also regulated by a seasonal closure from 1 July to 31 August to protect cod, as is fishery for cod in subdivision 24 where there is a seasonal closure in April. The seasonal closures alongside the introduction of BACOMA 120 mm trawl gear, which was introduced in 2009 to make sure undersized cod was not caught form the basis of a focused protection of cod in the Baltic Sea.

VMS effort in the Danish part of the Baltic Sea is given in Annex L. The highest effort is seen for Danish vessels in both SD 22-24 and SD 25. The highest effort in relation to Danish vessels is seen for mobile contacting gears. Swedish and German vessels carrying VMS primarily conduct fishing activity in SD 25 and on the western side of the island of Bornholm in SD 24 – eastern part with mobile bottom contacting gears. There is some fishing activity from German vessels along the border between Denmark and Germany in the Belt Sea, primarily with mobile bottom contacting gears.

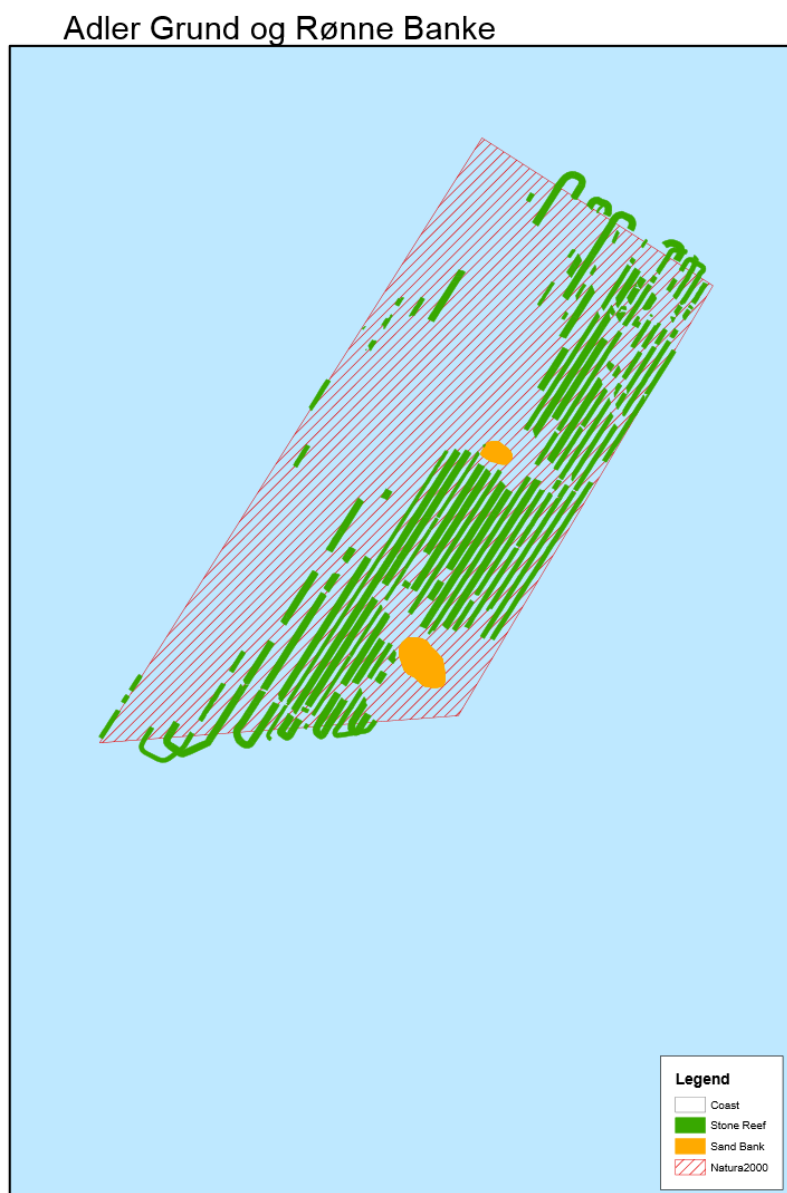
The three Natura 2000 sites, which the present proposal covers, are part of the Danish Natura 2000 network for the protection of reefs. A total of 34 Natura 2000 sites have been designated for reefs in the Belt Sea and the western Baltic Sea area. With this proposal all sites designated for reefs in the Danish part of the Belt Sea will be fully protected from physical impact from fishery with bottom contacting gears.



### **5.1.1 Natura 2000 site: Adler Grund og Rønne Banke**

The Natura 2000 site "Adler Grund og Rønne Banke"<sup>22</sup> is located southwest of Bornholm, and borders German waters, see figure 1. The Natura 2000 site covers an area of 321 km<sup>2</sup> and is designated for the protection of sandbanks (H1110) and reefs (H1170), see figure 2. In total, stone reef structures cover approximately 73 km<sup>2</sup> of the area, corresponding to 23 % of the Natura 2000 site. The site is characterized as being one large reef structure. The reef is representative for stone reefs in the open parts in the Baltic Sea. The first management plan for the site was adopted in April 2016<sup>23</sup>. In the baseline analysis the need for fisheries regulation has been evaluated due to the risk of damage from bottom contacting gears.

**Figure 2. Map of Natura 2000 site "Adler Grund og Rønne Banke" showing the location and spatial distribution of reef structures and sandbanks**



<sup>22</sup> Habitat No. H261, Natura 2000 site No. 252, EU site code: DK00VA261

<sup>23</sup> Link to Natura 2000 Management Plan for Adler Grund og Rønne Banke:  
[http://svana.dk/media/189184/252\\_n2000plan\\_2016-21.pdf](http://svana.dk/media/189184/252_n2000plan_2016-21.pdf)

### 5.1.2 Natura 2000 site: Centrale Storebælt og Vresen

The Natura 2000 site "Centrale Storebælt og Vresen"<sup>24</sup> consists of two former Natura 2000 sites; no. 165, "Sprogø and Halsskov Rev" and no. 116, "Vresen".

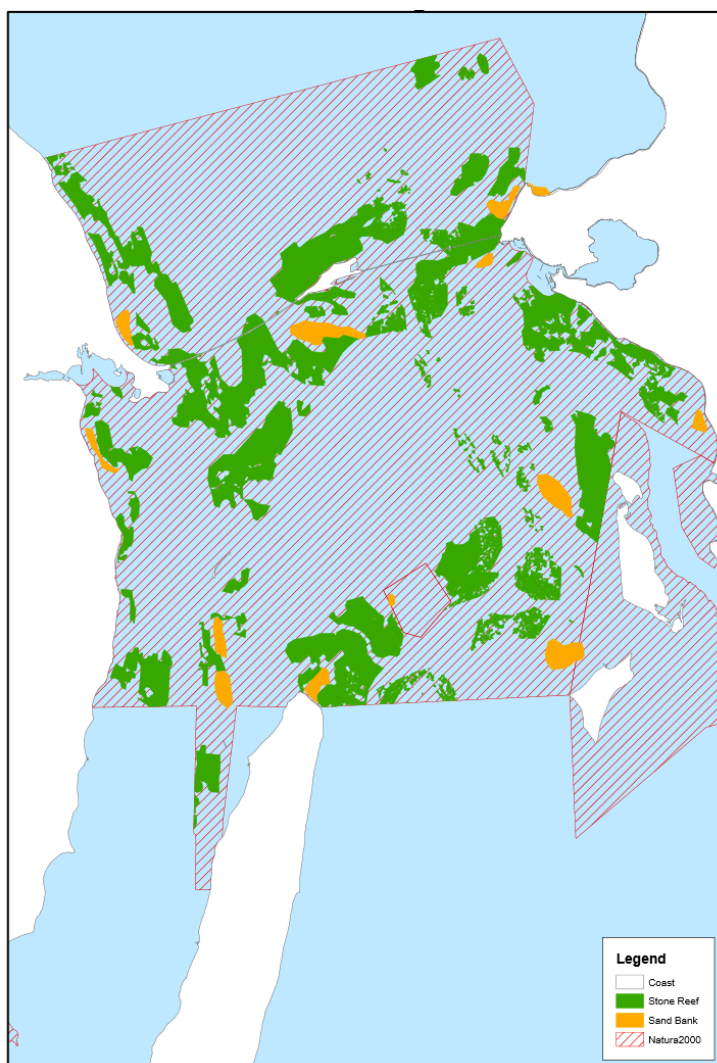
The marine area is dominated by smaller reefs and in the shallow water large deposits of stone and mussel beds are found. Conditions of the water masses are very dynamic as a result of the meeting between the salt water from the Kattegat and less saline water from the Baltic Sea.

Sprogø, Vresen and the many adjoining reefs represent a continuation of the north-south hill street that runs through Langeland and pass in an arc from Lohals to Korsør. Sprogø is a moraine knoll after construction of the bridge has changed a lot. Vresen was originally a hill island, but by erosion and sediment into a low island consisting of beach ridges and sand. Lejsø area is caused by material migration, which has formed a lagoon and salt marsh, which is fringed beach ridges. In the sea area is designated habitat reefs, while rural areas are not part of the designation document.

The site is located in the middle of the Great Belt, see figure 1. The site covers an area of 807 km<sup>2</sup> and is designated for the protection of reefs (H1170), harbor porpoises (1351) and two bird species (common eider and sandwich tern). In total, stone reef structures cover approximately 121 km<sup>2</sup> of the area, corresponding to 15 % of the Natura 2000 site, see figure 3.

According to the Natura 2000 management plan for the area<sup>25</sup>, fishing activity with mobile bottom contacting gear is described as a threat to the stone reefs. Fishing in general in the area is considered a threat towards both harbor porpoises (entanglement in gear) and birds (disturbance and removal of gravel).

**Figure 3. Map of Natura 2000 site "Centrale Storebælt og Vresen" showing the location and spatial distribution of reef structures and sandbanks**



<sup>24</sup> Habitat No. H204, Natura 2000 site No. 204, EU site code: DK00VA303

<sup>25</sup> Link to Natura 2000 management plan for Centrale Storebælt og Vresen:  
[http://svana.dk/media/189242/n116\\_n2000plan\\_2016-21.pdf](http://svana.dk/media/189242/n116_n2000plan_2016-21.pdf)

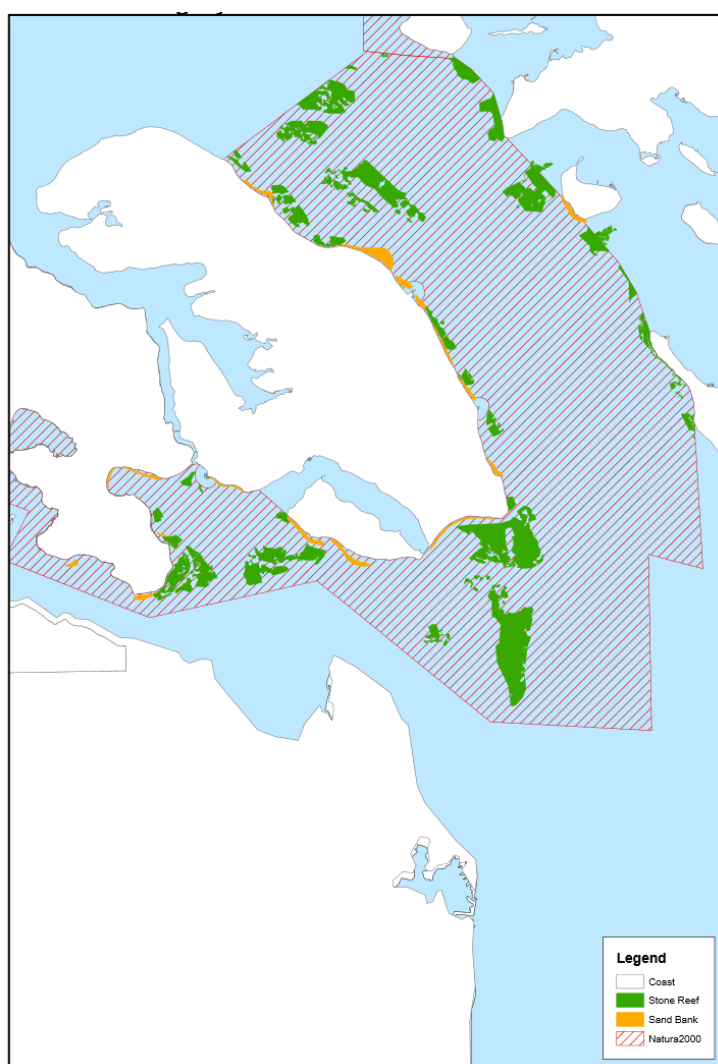
### **5.1.3 Natura 2000 site: Flensborg Fjord, Bredgrund og farvandet omkring Als**

The Natura 2000 site "Flensborg Fjord, Bredgrund og farvandet omkring Als"<sup>26</sup> is located in the Southern part of the Little Belt and the most western part of the Baltic Sea, see figure 1. The site covers an area of 646 km<sup>2</sup> and is designated for the protection of reefs (H1170), sandbanks (H1110), harbor porpoises (1351) and a range of bird species. The site is a well known resting area for swimming and diving ducks in the winter season and midsummer. The outer part of the fjord located in German waters, is also designated as a SPA.

In total, stone reef structures cover approximately 53 km<sup>2</sup> of the area, corresponding to 8 % of the total Natura 2000 site, see figure 4.

According to the Natura 2000 management plan for the area<sup>27</sup>, fishing activity with mobile bottom contacting gear is described as a threat to stone reefs and the marine habitat types in the area. Fishing activity with static gears is furthermore described as a threat to the harbor porpoises in the area.

**Figure 4. Map of Natura 2000 site "Flensborg Fjord, Bredgrund og farvandet omkring Als" showing the location and spatial distribution of reef structures and sandbanks**



<sup>26</sup> Habitat No. H173, Natura 2000 site No. 197, EU site code: DK00VA254

<sup>27</sup> Link to Natura 2000 management plan for Flensborg Fjord, Bredgrund og farvandet omkring Als:  
[http://svana.dk/media/201577/197\\_h173plan.pdf](http://svana.dk/media/201577/197_h173plan.pdf)

## 5.2 Description of proposed fisheries management measures

### 5.2.1 Purpose of the present proposal

The purpose of the present proposal is to ensure full protection of reef structures (habitat code H1170) from physical disturbance due to fishing activities and thereby contribute to the achievement of favorable conservation status for reef structures.

The protection of reef structures will be ensured through a buffer zone approach, where a 240 meter buffer zone is placed around the mapped reef structures. The Danish AgriFish Agency has received scientific advice from DTU Aqua, on the appropriate method to be used. The size of the buffer zone is calculated as 6 times the water depth in meters. Water depth around the reef structures in the three Natura 2000 sites, that the present proposal deals with, ranges between 30-40 meters. For the present proposal, a water depth of 40 meter is used – giving a buffer zone of 240 meters, see Annex E.

Once the reefs are mapped and their size and spatial distribution is known, the Danish AgriFish Agency, on the basis of scientific advice, formulates the necessary fisheries management measures. The final determination of boundaries within which fishing activities are proposed to be prohibited, follows the principles and rationale described in section 4. The outline of the area to be closed for fishing activities is therefore decided upon separately for each Natura 2000 site taking into account the site specific mapping of marine habitats, fisheries control and enforcement as well as proportionality in relation to impact on fishing patterns. Thus, the outline of the proposed areas to be closed for fishing activities is done per site in order to on one side ensure adequate protection of the mapped reef structures as well as to ensure proportionality in the proposed management measures in relation to fisheries control and enforcement.

The outline of reef structures and associated buffer zones are given above in section 5.1.1-5.1.3 for the three Natura 2000 sites. For the Natura 2000 sites, the reef complexes in two of the areas (Flensborg Fjord and Centrale Storebælt) are rather fragmented, at Adler Grund og Rønne Banke, the reef complexes are cohesive and cover a large part of the site. Thus, the area in which fishing activity is proposed to be regulated solely covers reef structures and the buffer zone area. Table 3 gives an overview of the size of the three Natura 2000 sites, the reef structures and the area proposed closed for fishing activities with mobile bottom contacting gear.

**Table 3. Total area of reef structures and buffer zones**

Natura 2000 site	Total area (km <sup>2</sup> )	Area of reef structures (km <sup>2</sup> )	Area of reefs and buffer zones	
			km <sup>2</sup>	% of N2000 area
<b>Adler Grund og Rønne Banke</b>	312.24	73.29	173.50	56%
<b>Centrale Storebælt og Vresen</b>	807.26	120.71	269.94	33%
<b>Flensborg Fjord</b>	645.65	53.24	122.54	19%

The proposed fisheries management measures will close approximately 56 % of Adler Grund og Rønne Banke, 33 % of Centrale Storebælt og Vresen and 19 % of Flensborg Fjord.

### 5.2.2 Assessment of adequacy, proportionality and the precautionary principle

In the present proposal, assessment of adequacy and proportionality as well as the precautionary principle has been given much focus. DTU Aqua has given scientific advice in terms of adequacy in relation to protection of reef structures from impact from unintended fishing activities. Proportionality has been

discussed in relation to reef structures, that cross the outline of the Natura 2000 site and/or are located adjacent to Natura 2000 sites as well as in relation to control and enforcement.

In the same context the precautionary principle has been assessed. The Waddenzee judgment C127-02 has explicitly stated the precautionary principle as part of the required assessments of the Habitats directive's requirements. This assessment is specifically stated in the paragraph 59 in the Waddenzee judgment, saying that activities only are allowed, if it is made certain that it will not adversely affect the integrity of that site. This leads to the conclusion that since Natura 2000 sites in Danish waters are designated prior to the mapping of the reefs, fisheries management measures might be laid down transboundary to the designated areas if it is asserted that it is needed to protect the integrity of the site.

All reef structures located within a Natura 2000 site will be protected from physical disturbance from fishing activity. Consequently reef structures located outside a Natura 2000 site, which are in direct contact with reef structures located inside the site, will also be protected from physical disturbance, since certain fisheries at these reef structures may have a negative impact on the reef structures located inside the site. Reef structures located outside a Natura 2000 site, which are not in direct contact with reef structures inside the designated Natura 2000 site, are not included in the provisions of the Habitats Directive, and will therefore in the present proposal not be protected from fishing activity<sup>28</sup>.

For the site "Centrale Storebælt og Vresen" the mapping of reef structures and other habitats were done in two different mapping sessions. Different techniques were used and the spatial resolution varies. Thus, there is a conflict between fishery activity by Danish fishermen with mobile bottom contacting gears in part of the area, mapped by the 'low' resolution. The proposal therefore solely makes use of the high resolution mapping in the areas where conflict exists.

In relation to protection of stone reef structures (habitat code H1170), scientific evidence support a total fishery ban with mobile bottom contacting gears, whereas fishery with static gears is not assessed as having a significant negative impact. Thus, these activities will be able to continue in areas mapped as reefs (Dahl 2005; Kaiser et al. 2002; Kaiser et al. 2016; Eigaard et al. 2016)<sup>29</sup>.

The rationale behind these principles is to enable the achievement of favorable conservation status for designated habitats by implementing the necessary restrictions on human activities - in this case by formulating fisheries management measures, which supplement regulation of other activities such as gravel and sand extraction among other activities.

In relation to the present proposal, reef structures located outside the Natura 2000 sites are, therefore, included in the protection measures, if they are in direct contact to reef structures located inside the site.

Proportionality is also assessed in relation to control and enforcement of the proposed fisheries management measures. The proposed measures must be controllable.

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<sup>28</sup> Further reference to this principle in Danish case law: Decision by the Supreme Court (Højesterets kendelse 356/2011): <http://www.domstol.dk/hojesteret/nyheder/Afgorelser/Documents/356-2011.pdf>

<sup>29</sup> Eigaard OR, Bastardie F, Breen M, Dinesen GE, Hintzen NT, Laffargue P, Mortensen LO, Nielsen JR, Nilsson HC, O'Neill FG, Polet H, Reid DG, Sala A, Sköld M, Smith C, Sørensen TK, Tully O, Zengin M, Rijnsdorp AD. 2016. Estimating seabed pressure from demersal trawls, seines, and dredges based on gear design and dimensions. ICES Journal of Marine Science 73(1), i27-i43. [doi:10.1093/icesjms/fsv099]

## **6. Restriction of fisheries within the Danish Natura 2000 sites**

The present proposal intends to prohibit fishing activities with mobile bottom contacting gear in areas mapped as reefs (H1170) in the three marine Natura 2000 sites: Adler Grund og Rønne Banke, Centrale Storebælt og Vresen and Flensborg Fjord, see section 1.3.

In accordance with the Commission guidelines of 2008 in relation to the formulation of fisheries management measures in Natura 2000, the Danish AgriFish Agency has requested for fishery data from all Member States with fishing opportunities in the Danish part of the western Baltic Sea. Germany and Sweden have indicated to have direct management interest in the concerned areas and have forwarded fisheries data. Estonia, Poland, Lithuania, Latvia and Finland also have fishing opportunities in and around the site "Adler Grund og Rønnebanke". However, only Estonia and Poland have forwarded relevant fisheries data for their fisheries in/around the site. Estonia, Lithuania, Finland and Latvia have communicated that they will not participate in the regional coordination process, and that they fully support the outcome of this process and agreement reached. Hence, there is no need to forward fishery data.

The Danish AgriFish Agency has received fishery data for the period 2011-2015 from Germany, Sweden and Poland. Estonia has contributed with fishery data for the period 2010-2012. DTU Aqua has carried out the analysis regarding landings, catch value and effort in order to assess the impact, which the proposed measures will have on current fishing activities. The analyses of fishing activities have been carried out on the basis of VMS and log book data for vessels of 12 meters or larger, since smaller vessels are not obliged to carry VMS. The fishing pattern for smaller vessels below 12 meters has only been assessed for Danish and Swedish vessels, however, analyses of fishing patterns for smaller and larger vessels show that the vessels use the same fishing grounds. Annex J describes in more detail how the fishery data have been analyzed, and the methods used. The following sections (6.1-6.3) describe in more detail information regarding fleet activity, type of fisheries, target species and annual trends for the period 2011-2015 (average values). Seasonal trends have not been analyzed due to the relatively low fishing activities in the three sites. Annual landing and catch values are given in Annex K, whereas effort data is given in Annex L.

### **6.1 Fleet activity and type of fisheries**

German and Swedish registered fishing vessels have access to the Danish part of the Baltic Sea within 12 nautical miles, see section 2.2. No other Member States have direct management interest/rights within 12 nautical miles from the Danish coastline. The Danish part of the Baltic Sea has historically been an important fishing area for Danish, Swedish and German fishermen. Concerning the site in the EEZ – all Baltic Sea countries have fishing opportunities in and around the area.

Fishing activities conducted in and around the three sites include fishing with bottom trawls, pelagic trawls, net gear, traps and lines. Only fishery data from fishing activity with mobile bottom contacting gears are listed in the following sections, since only this activity is proposed to be banned.

Swedish fishing activities with mobile bottom contacting gears are limited in and around the site 'Adler Grund og Rønne Banke'. There are no registrations of Swedish vessels above 12 meters conducting fishery with mobile bottom contacting gears in the other two sites.

German fishing activities are registered in all three sites, especially in the site "Flensborg Fjord".

Estonian and Polish fishing activity with mobile bottom contacting gears are only conducted in and around the site "Adler Grund og Rønne Banke". The exact location of Estonia activity can however not be displayed, since the Estonian data is given per ICES square (38G4 and 39G4). The Polish data was forwarded as landings from area "D7", which covers part of the site "Adler Grund og Rønne Banke". The Polish landings can therefore not with certainty be attributed to fishing activity directly within the site of "Adler Grund og Rønne Banke".

Danish and Swedish fishing activities within the three Natura 2000 sites constitutes less than 1‰ of the total VMS effort in the western Baltic Sea – both in relation to fishing with mobile bottom contacting gears and other gear types combined, see table 3 in Annex L.

The number of vessels conducting fishing activity in the three Natura 2000 sites are fairly low, see table 4 below, however, there is a trend of more Danish trawlers being present in the three areas concerned compared to the number of Swedish, German and Polish vessels. No Swedish vessels above 12 meters use the site "Centrale Storebælt og Vresen" nor "Flensborg Fjord" for fishing. Polish vessels are present in and around the site "Adler Grund og Rønne Banke" (1-5 in numbers).

According to VMS effort (see Annex L), the three Natura 2000 sites are not important fishing grounds for Danish, German, Swedish, Estonian or Polish fishermen. Of these countries, Denmark seems to have the highest effort values when looking at the Danish part of the western Baltic Sea area in general. Yet in and around the Natura 2000 sites, the effort is fairly low. Swedish vessels have a relatively high VMS effort in the Swedish part of the Baltic Sea, compared to the Danish part, where the highest intensity is found in the area closest to the Danish-Swedish nautical border (Adler Grund og Rønne Banke). German vessels seem to have a relative stable abundance (based on landings in the Danish part of the Baltic).

**Table 4. Number of vessels fishing in Natura 2000 sites with mobile bottom contacting gears and other gear types, respectively**

Natura 2000 site	Danish vessels					German vessels					Swedish vessels					Polish vessels				
	Mobile bottom contacting gears (other gears)					Mobile bottom contacting gears (other gears)					Mobile bottom contacting gears (other gears)					Mobile bottom contacting gears (other gears)				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Adler Grund og Rønne Banke	2 (1)	9 (2)	7 (0)	8 (0)	5 (0)	2 (0)	16(0)	2 (0)	1 (0)	0 (0)	1 (0)	0 (3)	2 (2)	0 (2)	0 (0)	0(1)	4(1)	1(0)	2(0)	0 (1)
Centrale Storebælt og Vresen	8 (2)	16(6)	16 (8)	12(3)	17 (7)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	No direct management interests				
Flensborg Fjord	6 (6)	26(8)	23(5)	21(0)	15 (1)	7 (0)	8 (0)	16 (0)	14 (0)	14 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)					

Since smaller fishing vessels (below 12 meters) do not carry VMS onboard, it has not been possible to include the activity from these vessels in the analysis carried out in and around the three Natura 2000 sites with regards to effort, fishing pattern, target species etc. However, based on dialogue with the Danish Fishermen Association PO and general knowledge of fishing patterns also from Swedish vessels, the fishing effort from smaller vessels is assessed to be similar to commercial fishing vessels above 12 meters. Experiences from fisheries control at sea as well as from the FMC (the Danish Fishery Monitoring Centre) confirms this assumption.

## 6.2 Target species and annual trends

Analyses of target species and annual trends for fishing activity within the three Natura 2000 sites have been made possible through a coupling of VMS-data and log book data, see Annex J-K (only for vessels above 12 meters since VMS data is not available for smaller vessels due to lack of legal obligations). Focus has been given to the period 2011-2015.

The following section describes in more detail fishing activity per site separately for Denmark, Sweden, Germany, Poland and Estonia for the main target species; (2011-2015) for Danish, Swedish, German and



Polish fishery data and a three year period (2010-2012) for Estonian fishery data. Annex K lists fishery data at species level per year per country.

### ***Natura 2000 site “Adler Grund og Rønne Banke”***

A number of Member States, besides Denmark, conduct fishing activities in and around the Natura 2000 site ‘Adler Grund og Rønne Banke’, see table 5 and following figures. According to the forwarded fishery data Germany, Sweden, Estonia and Poland also use the area for fishing with mobile bottom contacting gears, alongside Denmark. The main target species in the area are Atlantic cod and a mixed range of flatfish.

According to log book and VMS data, Danish fishermen conduct fishing activity with both pelagic- and bottom trawls in the site. The average annual Danish landings from the bottom trawling fishery amounts to approximately 9.500 kg at an estimated mean catch value of € 12.900 (for the years 2011-2015). If looking at Danish annual values, the majority of registered landings took place in 2012 (35.500 kg at a catch value of € 47.500), see Annex K, table 2 and 8.

German fishermen conduct a small scale fishery with mobile bottom contacting trawls, mainly for Atlantic cod. The registered landings from the German vessels (mobile bottom contacting gears) amounts to approximately 8.500 kg at an estimated catch value of € 11.700 (based on the period 2010-2015), see Annex K, table 4 and 11.

Swedish fishermen also conduct a small scale fishery with mobile bottom contacting trawls for Atlantic cod, besides fishery with nets and lines (also for Atlantic cod). The registered landings from the Swedish bottom trawl fishery in the area amounts to approximately 2.300 kg at an estimated average catch value of € 3.000 (based on the period 2011-2015), see Annex K, table 3 and 10.

The Estonian fisheries data have been forwarded at ICES square level which may not give the exact values of the Estonian fishery with mobile bottom contacting gears in and around the site “Adler Grund og Rønne Banke”. The Danish AgriFish Agency wish to include all forwarded fishery data, as fishing activities with mobile bottom contacting gears do take place within the boundaries of the Natura 2000 site. This results in registered landings from Estonian fishermen to approximately 2.500 kg at an estimated mean catch value of € 3.000 (based on the period 2010-2012).

The Polish fishery data has been forwarded for an area termed “area D7”, which covers part of the Natura 2000 site, see Annex K. The Polish landings can therefore not with certainty be matched to the site, as well as there can be landings from the site which are not included in the dataset. The registered landings indicate that Polish fishermen primarily conduct fishery with mobile bottom contacting gears in D7, where the main target species are Atlantic cod and European flounder. These landings amounts to an approximately annual landing of 5.800 kg at an estimated average catch value of € 7.600 (based on the period 2011-2015). In 2015, there was no Polish activity in the area ‘D7’, see Annex K, table 6 and 13.



**Table 5. Average landings per country and value of landings per gear type and target species for Adler Grund og Rønne Banke. The values are estimated from log book and VMS data**

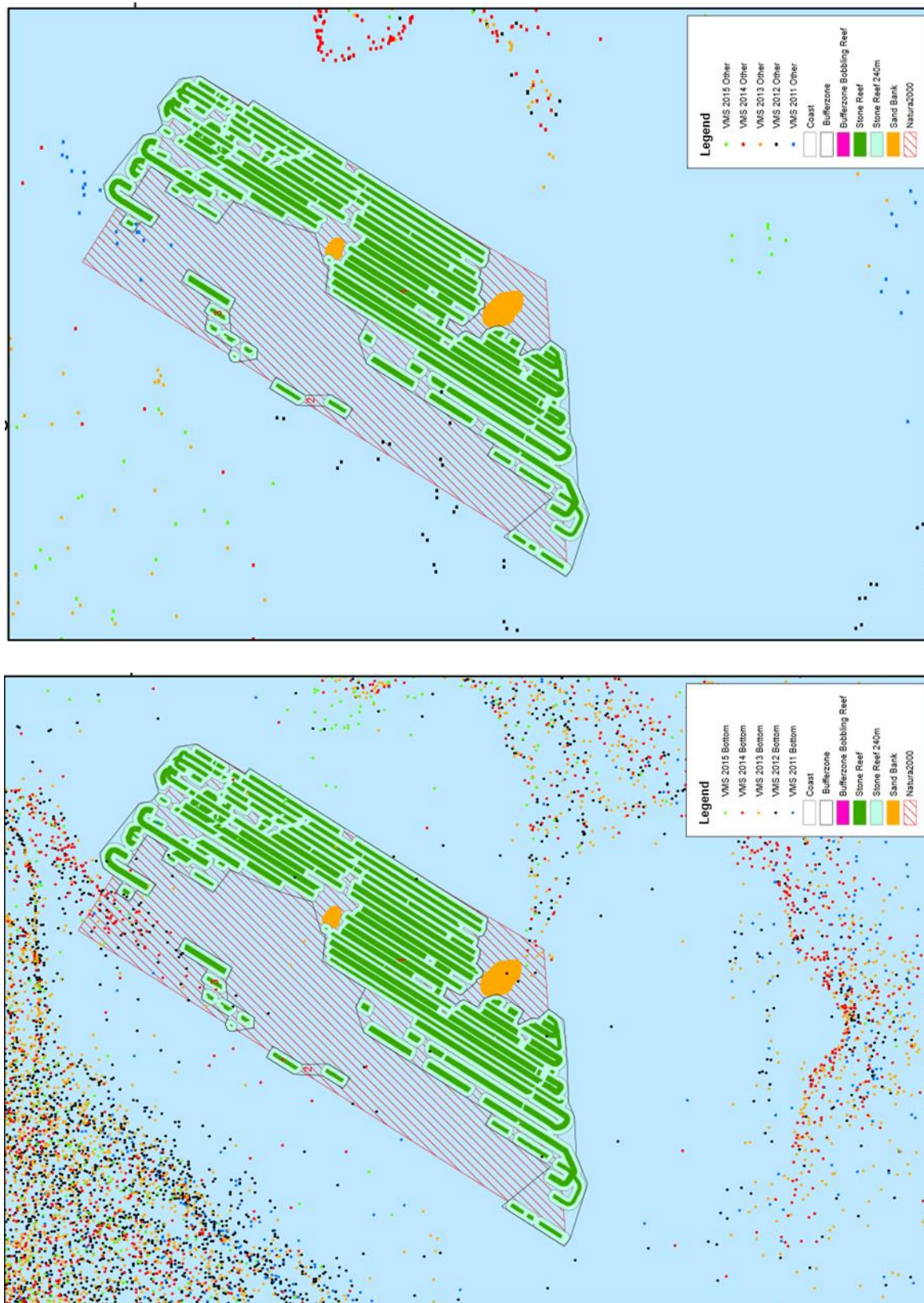
Type of gear	Target species	MS / landings (in kg)					Estimated value of catch (in €)				
		DK	DE	SE	EST	PL	DK	DE	SE	EST	PL
Mobile bottom trawl	Atlantic cod	6,981	8,326	2,299	***	4,261	11,362	**	2,927	***	7,280
	European flounder	66	102	0	***	1,055	22	**	0	***	291
	Others*	247	54	0	2,417	502	144	**	0	2,861	19
Total		7,295	8,482	2,299	2,417	5,818	11,528	11,668	2,927	2,861	7,589

\*) Others; catches below 200 kg are summarized in this category.

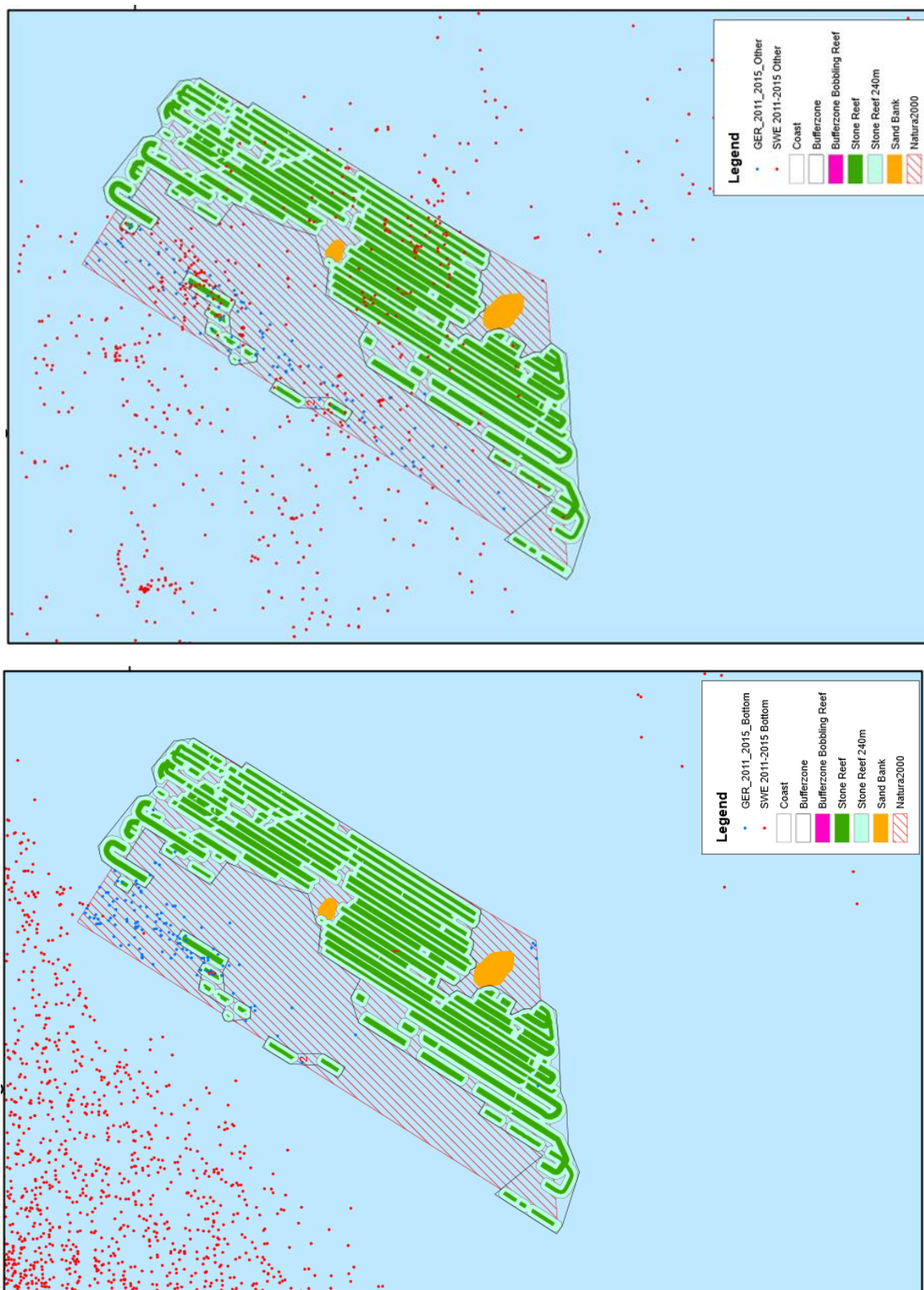
\*\*) Value of landings received as a total and not at specie level

\*\*\*) Estonian data are received at Ices square level and not per Natura 2000 site. The data are further received as totals and not specie level.

**Figure 5a. Maps of Adler Grund og Rønne Banke showing reef structures, proposed buffer zones and VMS positions for Danish vessels above 12 meters – lower map showing fishing activities with bottom contacting gears and upper map showing fishing activities with other gear types.**



**Figure 5b. Maps of Adler Grund og Rønne Banke showing reef structures, proposed buffer zones and VMS positions for Swedish, German and Estonian vessels above 12 meters – lower map showing fishing activities with bottom contacting gears and upper map showing fishing activities with other gear types.**



### **Natura 2000 site "Centrale Storebælt og Vresen"**

Danish and German fishermen conduct fishing activities in and around the Natura 2000 site "Centrale Storebælt og Vresen", see table 6 and figures 6a and 6b. The red polygon shown in figure 6a, is the area in which a potential conflict between reef structures and fishery with mobile bottom contacting gears exists. Since the resolution of the mapping is fairly low, the site therefore cannot in accordance with the Danish definition of reef structures, be closed for fishery.

According to log books and VMS data, Danish fishermen conduct an extensive fishery in the area with both net gears, pelagic- and bottom contacting trawls. The target species in the fishery with mobile bottom contacting gears are primarily Atlantic cod, sprat and different flatfishes.

The Danish average landings amount to approximately 354.000 kg at an estimated mean catch value of € 390.700 (based on the period 2011-2015). The majority of the Danish landings took place in 2015 (766.3385 kg at an estimated catch value of € 604.266), see Annex K, table 2 and 8.

According to log books and VMS data from German fishermen, they conduct a small scale fishery for European flounder and plaice as well as cod with mobile bottom contacting gears. There are only registered landings from this fishery in 2011, which for this year amounts to approximately 4.000 kg at an estimated catch value of € 10.000. In the period 2012-2015 there are no registered landing from German vessels from this site, see Annex K, table 4 and 11.

There are no records of Swedish fishermen conducting fishery in this area when looking at the period of 2011-2015, see table 6 and figures 6a and 6b.

Fishery data for smaller vessels are not available for the area for Danish and German vessels. Fishing activity with smaller vessels (below 12 meters) are for Denmark and Germany estimated to be similar to those of larger vessels. This assumption is supported by information of fishing patterns for smaller vessels provided by the Danish Fishermen Association. However, some smaller vessels may likely be affected by the proposed measures, since they do use the areas where the reefs are comprised of smaller stones (in the buffer zones), when fishing with mobile bottom contacting gears.

**Table 6. Average landings per country and value of landings per gear type and target species for Centrale Storebælt og Vresen. The values are estimated from log book and VMS data**

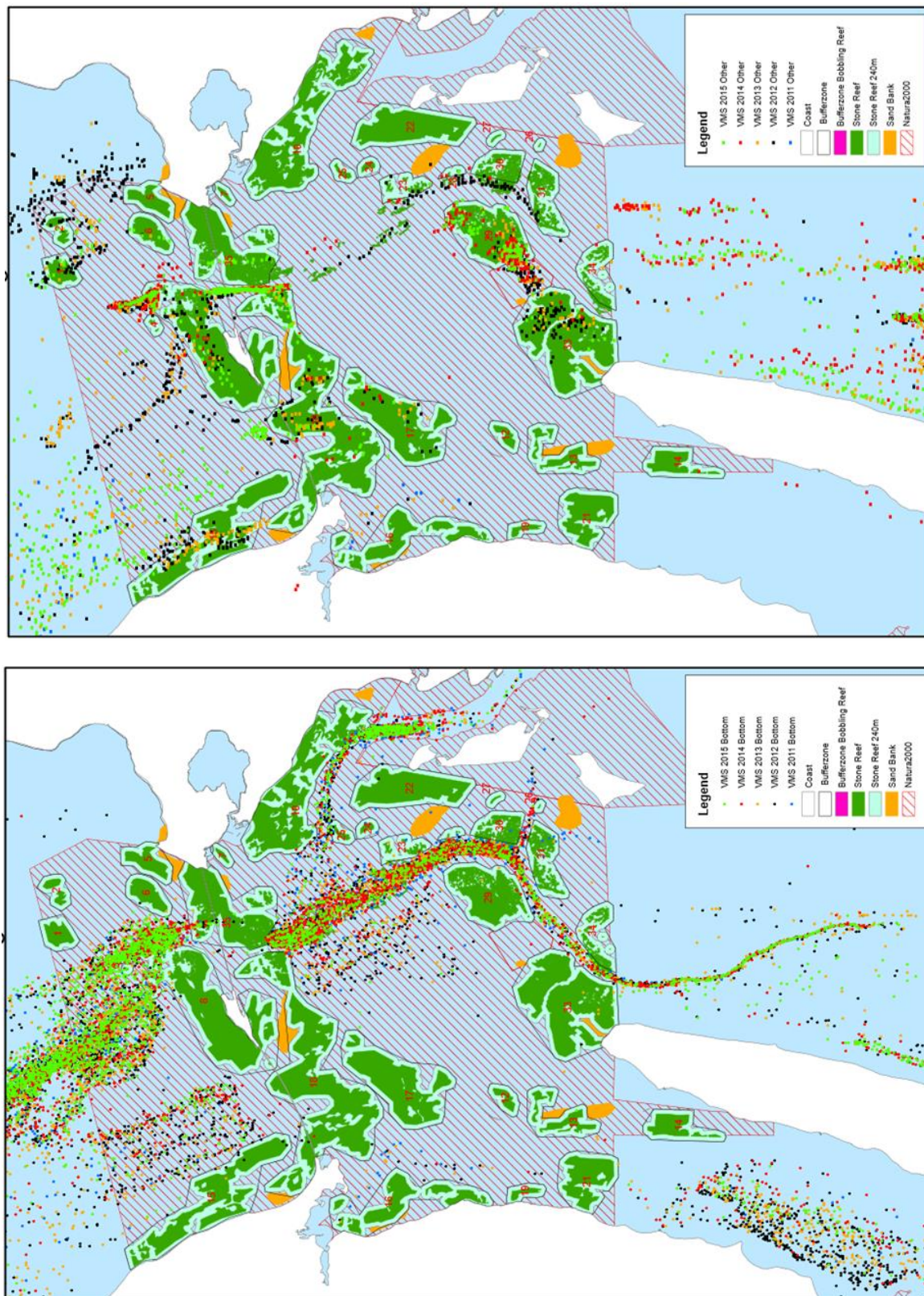
Type of gear	Target species	Country / Landings (in kg)			Estimated value of catch (in €)		
		DK	DE	SE	DK	DE	SE
Mobile bottom trawl	Atlantic cod	87,781	131	0	173,983	**	0
	Brill	582	19	0	3,661	**	0
	Common dab	6,167	56	0	4,711	**	0
	Common sole	2,219	106	0	27,470	**	0
	European flounder	18,387	263	0	10,045	**	0
	European plaice	31,924	218	0	32,925	**	0
	Lumpfish	582	1	0	1,477	**	0
	Sprat	37,257	0	0	9,932	**	0
	Turbot	496	11	0	3,968	**	0
	Others*	2,805	5	0	1,896	**	0
Total		188.201	808	0	270,067	2,010	0

\*) Others; catches below 200 kg are summarized in this category.

\*\*) Value of landings received as a total and not per specie.

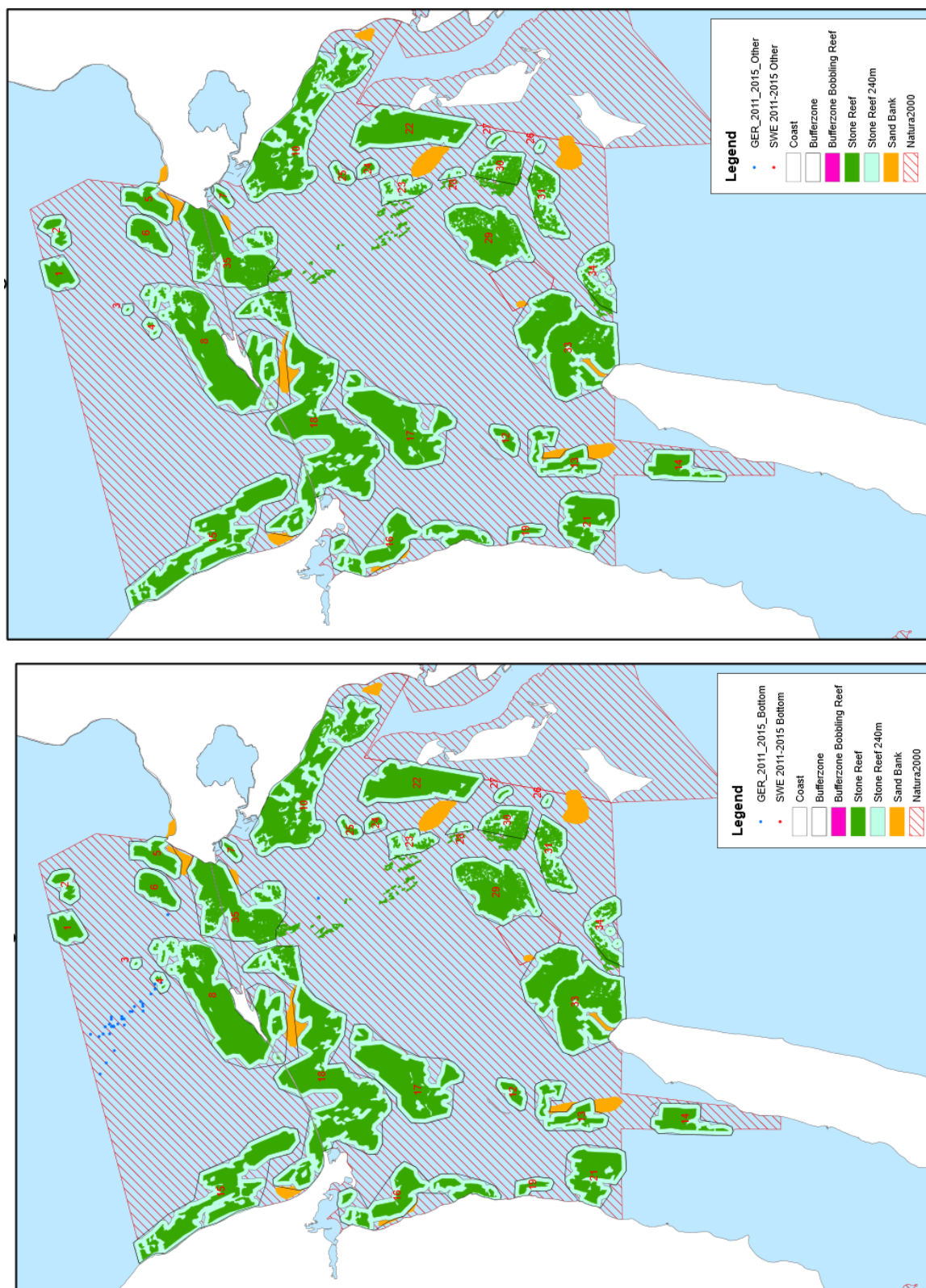


**Figure 6a. Maps of Centrale Storebælt og Vresen showing reef structures, proposed buffer zones and VMS positions for Danish vessels above 12 meters – lower map showing fishing activities with bottom contacting gears and upper map showing fishing activities with other gear types.**





**Figure 6b. Maps of Centrale Storebælt og Vresen showing reef structures, proposed buffer zones and VMS positions for Swedish and German vessels above 12 meters – lower map showing fishing activities with bottom contacting gears and upper map showing fishing activities with other gear types.**



**Natura 2000 site "Flensborg Fjord, Bredgrund og farvandet omkring Als"**

Danish and German fishermen conduct fishing activities in and around the Natura 2000 site 'Flensborg Fjord', see table 7 and figures 7a and 7b.

According to log book and VMS data, Danish fishermen conduct fishery in the area with both pelagic and mobile bottom contacting gears. The target species are primarily cod and different flatfishes. The Danish average annual landings amounts to approximately 699.300 kg at an estimated average catch value of around € 431.600 (based on the years 2011-2015). The majority of Danish landings took place in 2011 (1,370,000 kg at an estimated average catch value of € 370.000), see Annex K, table 2 and 8. In later years, landings reduced and catch values went up

According to log book and VMS data from German fishermen, these conduct fishery with mobile bottom contacting gears in the area. The registered German landings from this fishery amounts to approximately 78.100 kg at an estimated average catch value of € 47.000 (based on the period 2011-2015).

Swedish fishermen have no registered landings from the area from the period 2011-2015, see table 7 and figures 7a and 7b.

Fishery data for smaller vessels are not available for the area for Danish nor German vessels. Fishing activity with smaller vessels (below 12 meters) are for Denmark and Germany estimated to be similar to those of larger vessels. This assumption is supported by information of fishing patterns for smaller vessels provided by the Danish Fishermen Association PO. However, some smaller vessels may likely be affected by the proposed measures, since they do use the areas where the reefs are comprised of smaller stones (in the buffer zones), when fishing with mobile bottom contacting gears.

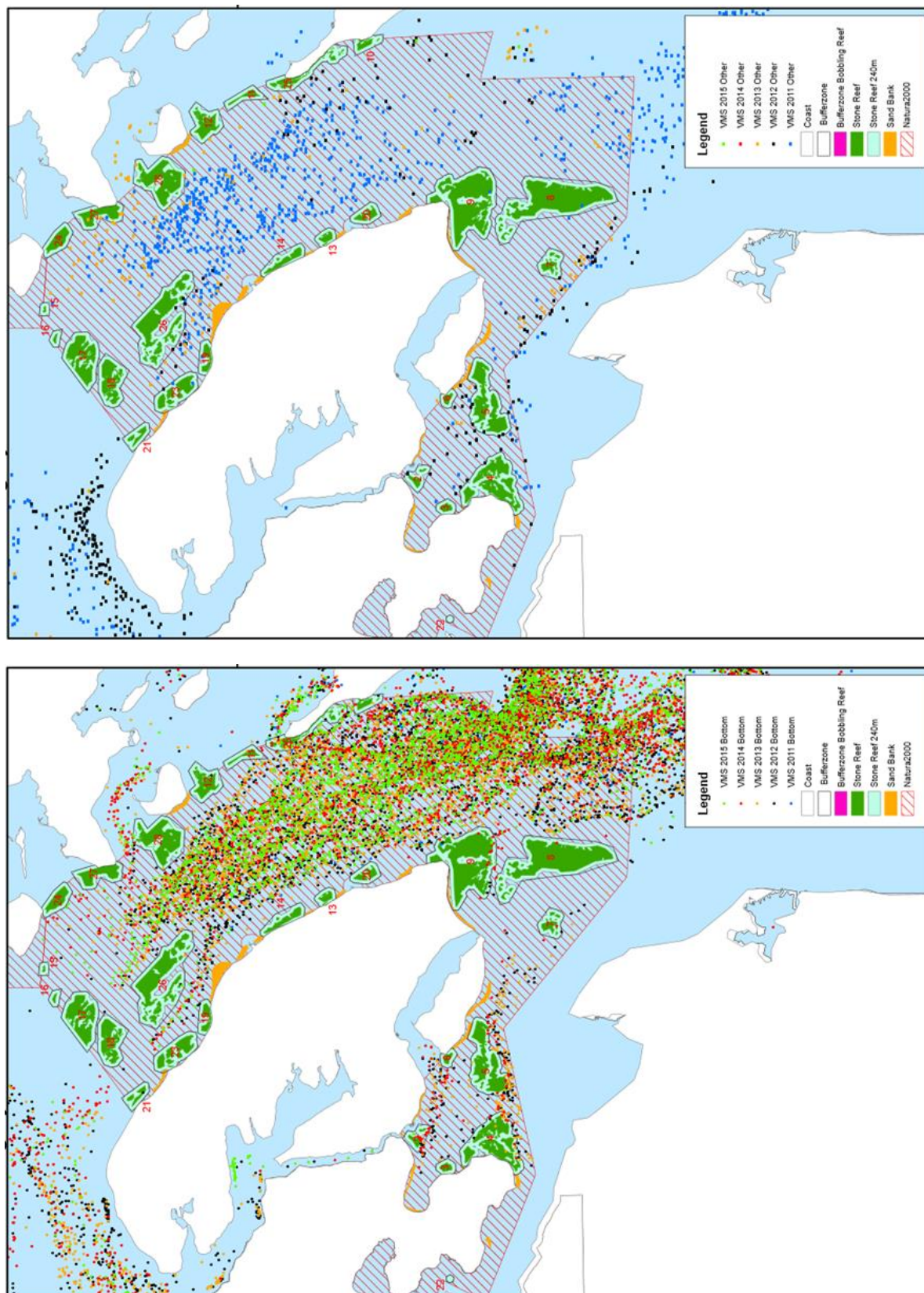
**Table 7. Average landings per country and value of landings per gear type and target species for Flensborg Fjord. The values are estimated from log book and VMS data**

Type of gear	Target species	Country / Landings (in kg)			Estimated value of catch (in €)		
		DK	DE	SE	DK	DE	SE
Mobile bottom trawl	Atlantic cod	117,622	6,927	0	203,435	**	0
	Common dab	19,763	7,131	0	12,204	**	0
	European flounder	31,600	6,145	0	14,441	**	0
	European plaice	92,132	8,568	0	82,372	**	0
	Sprat	272	16,034	0	70	**	0
	Turbot	245	57	0	1,589	**	0
	Whiting	400	15,424	0	195	**	0
	Others*	429	17,846	0	2,119	**	0
Total		262,462	78,133	0	316,424	46,977	0

\*) Others; catches below 200 kg are summarized in this category.

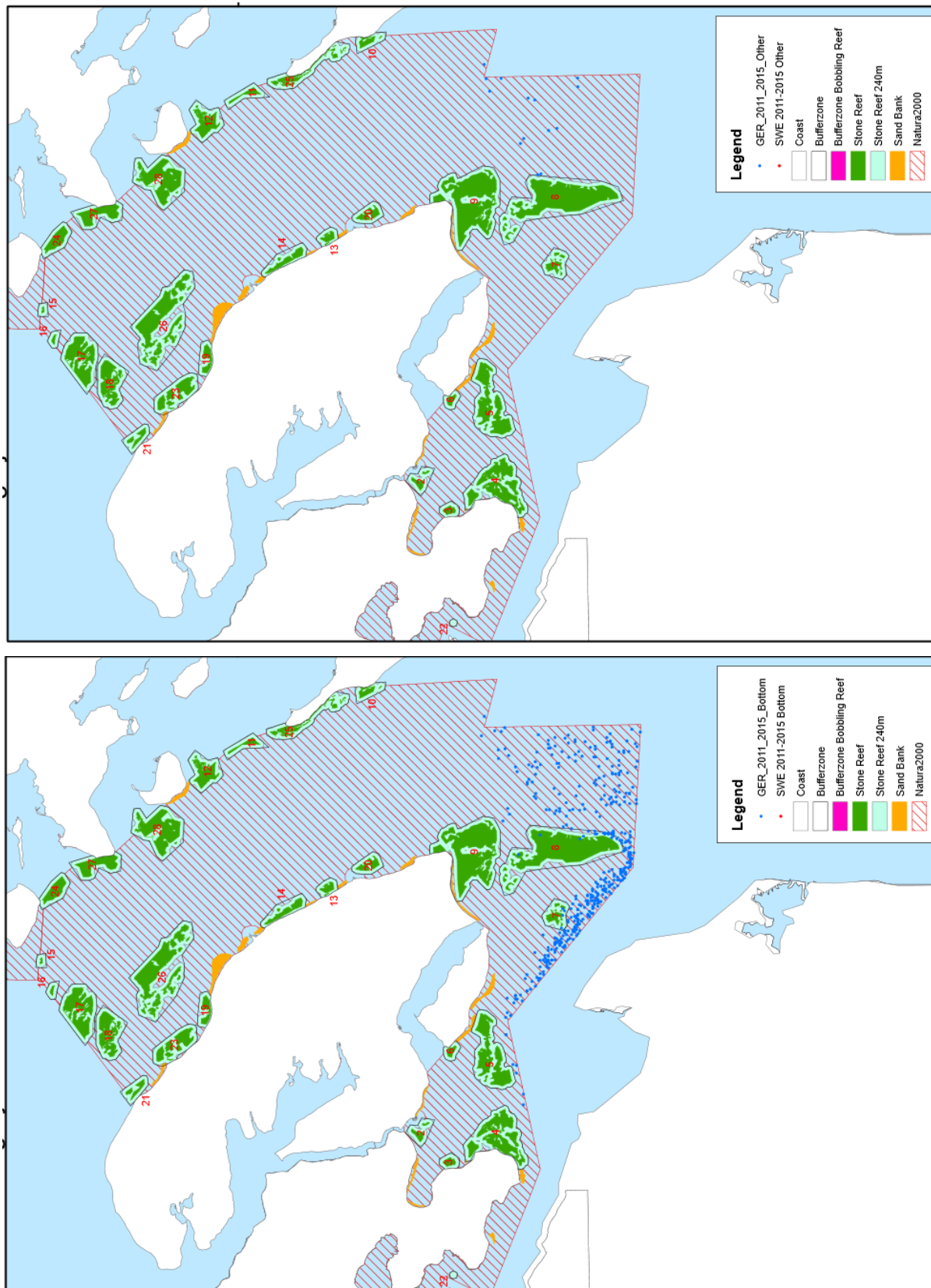
\*\*) Value of landings received as a total and not per specie.

**Figure 7a. Maps of Flensburg Fjord showing reef structures, proposed buffer zones and VMS positions for Danish vessels above 12 meters – lower map showing fishing activities with bottom contacting gears and upper map showing fishing activities with other gear types.**





**Figure 7b. Maps of Flensburg Fjord showing reef structures, proposed buffer zones and VMS positions for Swedish and German vessels above 12 meters – lower map showing fishing activities with bottom contacting gears and upper map showing fishing activities with other gear types.**



### **6.3 Displacement**

Analysis of fishing patterns based on VMS positions and log book data indicate, that the proposed fisheries management measures are not likely to have a great impact in relation to the current fishing activities in the western Baltic for Danish, Swedish, German, Estonian and Polish vessels. For Danish and German vessels, the western Baltic area is an important fishing ground, however, the areas addressed in the present proposal are characterized by reef structures and are, therefore, not preferred fishing grounds primarily due to the risk of damage to the fishing gear used from contact with the reef structures.

Danish fishermen carry out fishing activities with mobile bottom contacting gear in all the three Natura 2000 sites in question, however, the activities are not taking place in areas mapped as reefs, and will therefore only be displaced in a minor degree due to the proposed fisheries management measures. There are, however, indications that smaller vessels are conducting fishing activity with mobile bottom contacting gears in the area of Flensborg Fjord, solely in areas characterized by less dense stone occurrences. These fishermen will be displaced from the area if this activity is taking place in the outlined buffer zones unless they change gear type and fish with pelagic trawls instead of mobile bottom contacting trawls.

Swedish vessels have some fishing activities according to VMS and log book data in only one of the sites. However the degree of mobile bottom contacting fishery there is still very limited.

Germany have fishing activities in all three sites. Like for the Danish vessels it is assumed that the displacement will be the same as that for the Danish vessels in the areas.

The overall conclusion in relation to displacement is therefore, that the proposed fisheries management measures for protection of reef structures will not have any significant impact on the fishing activities in the Western Baltic area in general for the Member States with fishing rights within 12 nautical miles, e.g. Swedish, German and Danish vessels. Likewise, Member States with fishing rights in the Danish EEZ around the site Adler Grund og Rønne Banke will not be displaced from current fishing grounds by the proposed fisheries management measures.

The majority of the areas within the three Natura 2000 sites will still be open for fishing activities with nets, traps/pots and pelagic trawls. VMS effort data confirms that the three Natura 2000 sites are not so important fishing areas for neither Danish, Swedish, German, Estonian nor Polish fishermen. However, it cannot be excluded that the proposed fisheries management measures might have an effect on some fishermen, carrying out fishing activities in the outlined buffer zones. This activity is estimated to be of a quantity, which can be fished elsewhere. However, this potential impact is, according to the available fishery data, minimal.

Assessment of displacement is important not only in terms of potential effects to ongoing fishing activities but also in relation to the marine environment. Displacement of fishing activities to less productive areas can potentially cause great damage to the marine environment, thus resulting in an overall negative impact. The proposed fisheries measures in the present proposal will in general not result in displacement of fishing activities, since the areas proposed closed to fishing activity are not the most important fishing grounds for Danish, Swedish, German, Estonian nor Polish fishermen.

### **6.4 Control, enforcement and monitoring**

The following two sections describe how the proposed management measures will be controlled, enforced and monitored. Changes in conservation status as well as monitoring of effects of implemented management measures are assessed in the Danish Monitoring Program (NOVANA).

#### **6.4.1 Control and enforcement**

Control and enforcement of fishery management measures in marine Natura 2000 sites in Denmark is coordinated by the Fishery Monitoring Center (FMC) under the Danish Agrifish Agency located in Kolding, Jutland. The Danish FMC has developed specific guidelines for fisheries control and enforcement, which were launched parallel to the implementation of the first national order for the protection of reef structures in four coastal Natura 2000 sites located in the western Baltic Sea.

All marine Natura 2000 sites are visible in the Danish V-track system<sup>30</sup>. The Danish FMC has developed a model whereby the center is alerted if and when a vessel enters the outlined area (control area) placed around the Natura 2000 sites for which fisheries management measures have been implemented. The control area has a minimum size of 4 nautical miles whereby any activity in the area will be detected. Every day FMC receives a list of the vessels which have been detected in the control areas the previous day. In case a vessel has been detected within a Natura 2000 site, an analysis of the vessels fishing pattern is carried out and the vessel is contacted with the purpose of informing the vessel owner of current fisheries management measures. The model allows for real time control as well as administrative control.

Since September 2013 when the first national administrative order was implemented for protection of reef structures in 4 coastal Natura 2000 sites, the FMC has detected both gillnet vessels and trawlers in the areas closed for fishing activities with mobile bottom contacting gear. An open dialogue with the fishermen so far seems to have had an effect.

Control and enforcement of fisheries management measures in marine Natura 2000 sites in Danish waters are centered around the VMS system, the risk based system used in regular fisheries control and enforcement as well as open dialogue with fishermen and their organizations. The Danish AgriFish Agency is fully aware of the challenges of control and enforcement of fisheries management measures for relatively small Natura 2000 sites, which can be passed in the time between two VMS pings.

Analysis of the fishing patterns in and around the three Natura 2000 sites which the present proposal covers, show that fishing activity with mobile bottom contacting gear in the two areas is quite extensive (Flensburg Fjord and Centrale Storebælt). However, the fishing activity do not take place in areas mapped as reefs code H1170, but some fishing activity is seen in the buffer zones placed around the reefs. The analyses is based on VMS positions for Danish, Swedish and German vessels as well as information from smaller Danish vessels – see section 6.1 and 6.2 for more information on fishing pattern, target species etc. With the current fishing activity in mind, control and enforcement does not seem to be a major issue under a new regime with prohibition of certain fishing activities in the three Natura 2000 sites].

Denmark will reassess whether there is a need for additional technical equipment in relation to control and enforcement of the proposed fisheries management measures. An evaluation of the Danish control and enforcement model will take place in summer 2018 when the measures adopted for 10 Natura 2000 sites (Delegated Act (EU) 2015/1778) has been in place for 18 months. Thus, the Danish AgriFish Agency will, if the need arises, require usage of technical equipment (GPS and sensors as a minimum), in line with the current CCTV and technical specifications for some types of fishing activities in Danish waters both within and outside 12 nautical miles. If the need arises for technical equipment in relation to fisheries control and enforcement – Denmark will coordinate such a requirement in accordance with Article 11 and 18 of the Basic Regulation and with the Member States having a direct management interest in the area, e.g. Germany, Sweden, Poland, Estonia, Latvia, Finland and Lithuania.

#### **6.4.2 The national monitoring program – NOVANA**

In Denmark, reef structures in Natura 2000 sites are monitored through NOVANA, the Danish national monitoring program. Within this program, reefs in open waters are monitored by the Danish Centre for

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<sup>30</sup> The V-track system displays VMS positions for vessels. For all vessels above 12 meters VMS is mandatory.

Environment and Energy (DCE) University of Aarhus. DCE monitors reefs in 34 Natura 2000 sites following specific national guidelines. Of the 34 areas, boulder reefs in 12 areas are monitored yearly, whereas boulder reefs and "bubbling reefs" in the remaining 22 areas are monitored every six years. In addition to this program, the Danish Agency for water and nature management monitors macro algae coverage and fauna on transects on rocky substrates in the coastal sites<sup>31</sup>. Thus, the main aim is an assessment of biodiversity on and around the reef structures.

Thus, the effect of the proposed management measures will be monitored through the Danish national monitoring program NOVANA. Data from the marine monitoring stations located within and/or close to the Natura 2000 sites concerned provides the basis for the description of the current conservation status both in relation to basic analyses plans and management plans with macro algae being the main indicator.

Of the three Natura 2000 sites that the present proposal deals with; Adler Grund is monitored at four different depths every six years (last monitored in 2016) and Flensborg Fjord; is monitored at three different depths every six years (last monitored in 2013) as well as four areas coastally. Within the site of Centrale Storebælt, there is a separate small Natura 2000 site called "Broen", the reef structures in this minor site is monitored at four different depths every year, additionally one coastal macro algae station is located within the site.

### **6.4.3 Expected outcome of the proposed fisheries management measures**

The proposed fisheries management measures are expected to contribute to the obligation of ensuring a favorable conservation status for reef structures in Danish waters, e.g. reef structures with habitat code H1170.

Several studies have shown that fishing with mobile bottom contacting gears has a negative effect on the physical distribution of reef structures as well as their function in the ecosystem. When a trawl passes, stones and vegetation are damaged. These areas were once fishing grounds. Reduced effort and change of fishing gears to lighter trawls has resulted in low fishing effort in these areas when looking at the period 2011-2015. However, despite low fishing intensity in recent years, there is a need to ensure that the activity cannot be reinstated in the future. Furthermore, until 2010, fishing for stones was allowed in Danish waters, also in areas now designated as Natura 2000 sites designated for reef structures. Until 2008, extraction of building material was also taking place in areas now designated as Natura 2000 sites.

Thus, reef structures in Danish waters have been impacted from a range of activities over time and is now classified as being in an unfavorable conservation status, see Annex A. A total ban for fishing with mobile bottom contacting gears in areas mapped as reefs and in the surrounding buffer zone is expecting to contribute to an improved conservation status over time. A process which takes time and which should be seen as one of several initiatives from the Danish Government to improve the conservation status of these and other reef structures. Other initiatives cover regulation of extraction of sand and gravel, reduction of nutrient content in the water column, both by less flow from agricultural land but also through removal of nutrients from the water column by mussel production, outgrow of eel-grass among other initiatives.

Any change in conservation status and growth of characteristic species is monitored through the national monitoring program as described in section 6.4.2.

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<sup>31</sup> Dahl, K. and Carstensen, J. (2008): Tools to assess conservation status on open water reefs in Natura 2000 areas. Nat Env R Inst, University of Aarhus, 25 pp. NERI Technical Report No. 663: [http:// www.dmu.dk/Pub/FR663.pdf](http://www.dmu.dk/Pub/FR663.pdf)

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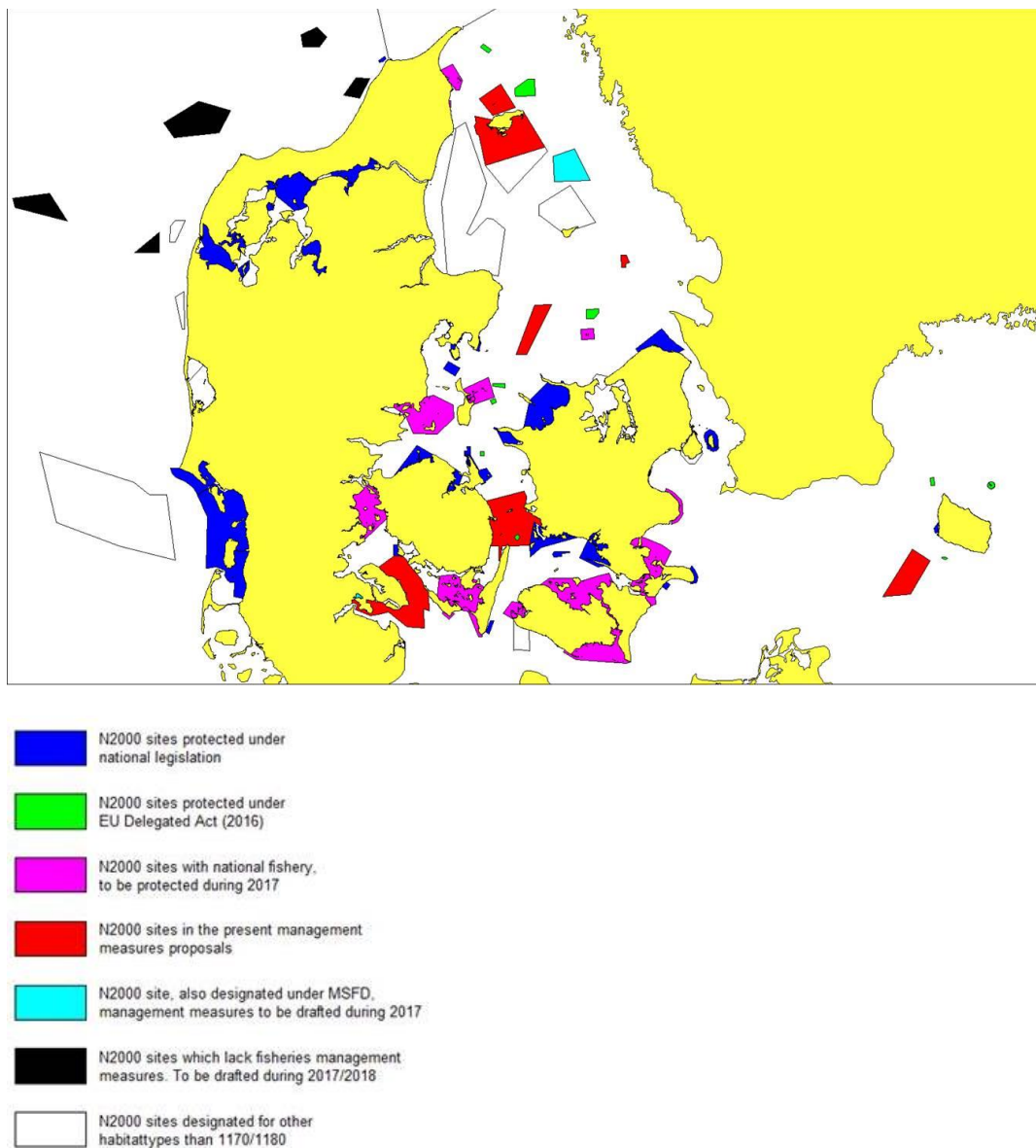
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## Annex A – Map of Danish marine Natura 2000 network



Designation codes are used (marine only) – definitions and further information regarding the designation types appears in the EU Commission's "Interpretation Manual of European Union Habitats"<sup>32</sup> and "Code list for species" on the Reference Portal for Natura 2000<sup>33</sup>.

1095 Sea lamprey

1099 River lamprey

1103 Twaite shad

1110 Sandbank which are slightly covered by sea water all the time

1140 Mudflats and sandflats not covered by sea water at low tide

<sup>32</sup> [http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/Int\\_Manual\\_EU28.pdf](http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/Int_Manual_EU28.pdf)

<sup>33</sup> [http://bd.eionet.europa.eu/activities/Natura\\_2000/reference\\_portal](http://bd.eionet.europa.eu/activities/Natura_2000/reference_portal)



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1150 Coastal lagoons  
1160 Large shallow inlets and bays  
1170 Reefs  
1180 Submarine structures made by leaking gases  
1351 Harbour porpoise  
1364 Grey seal  
1365 Harbour seal

*A range of bird species*

Table of designated habitat types and species for the 97 Danish Natura 2000 sites is given in the following pages.

<b>EU site code</b>	<b>N2000 site name (in Danish)</b>	<b>Size (ha)</b>	<b>Designated for: (only marine habitats and species mentioned)</b>
DK00FX112	Skagens Gren og Skagerrak	270.295	1351, 1150
DK00FX113	Hirsholmene, havet vest herfor og Ellinge Å's udløb	9.533	1095,1364,1365,1110,1150,1170,1180, birds
DK00FX010	Strandenge på Læsø og havet syd herfor	102.714	1364,1365,1110,1140,1150,1170,1180, birds
DK00FX118	Holtemmen, Højsande og Nordmarken	713	1150
DK00FX122	Ålborg Bugt, Randers Fjord og Mariager Fjord	72.197	1095,1099,1103,1365,1355,1110,1130,1140,1150, 1160, birds
DK00FX123	Nibe Bredning, Halkær Ådal og Sønderup Ådal	20.341	1095,1099,1355,1365,1110,1150,1160,1170,1140, Birds
DK00EY124	Løgstør Bredning, Vejlerne og Bulbjerg	44.768	1095,1355,1365,1110,1140,1150,1160,1170, birds
DK00FX257	Havet omkring Nordre Rønner	18.535	1364,1365,1110,1140,1170,1180, birds
DK00FX128	Kielstrup Sø	40	1110, 1150
DK00EY133	Agger Tange, Nissum Bredning, Skibsted Fjord og Agerø	33.165	1103,1355,1365,1110,1140,1150,1160,1170, birds
DK00EX026	Dråby Vig	1.678	1103,1355,1365,1140,1150,1160,1170, birds
DK00EY134	Lovns Bredning, Hjarbæk Fjord og Skals, Simested mv.	23.520	1103,1355,1365,1140,1150,1160,1170, birds
DK00EX135	Kås Hoved	396	1355, 1150
DK00EY136	Sønder Lem Vig og Geddal Strandenge	1.115	1355, 1150
DK00EX258	Mågerodde og Karby Odde	497	1355,1150,1160, birds
DK00DX146	Anholt og havet nord for	47.878	1364,1365,1110,1150, birds
DK00DX151	Begtrup Vig og kystområder ved Helgenæs	1.771	1110,1150,1160,1170
DK00DX155	Stavns Fjord, Samsø Østerflak og Nordby Hede	15.663	1364,1365,1110,1150,1160,1170, birds
DK00DY156	Horsens Fjord, havet øst for og Endelave	45.823	1355,1364,1365,1110,1140,1150,1160,1170, birds
DK00CY040	Venø, Venø Sund	2.926	1103,1365,1150,1160,1170, birds
DK00CX160	Nissum Fjord	6.430	1095,1099,1103,1106,1355,1150, birds
DK00CX161	Stadil Fjord og Vest Stadil Fjord	6.903	1095,1355,1150, birds
DK00CY163	Ringkøbing Fjord og Nymindestrømmen	21.810	1095,1099,1102,1103,1106,1355,1130,1150, birds
DK00AY176	Vadehavet med Ribe Å, Tved Å og Varde Å vest for Varde	151.158	1095,1099,1103,1106,1113,1351,1355,1364,1365, 1110,1130,1140,1150,1160,1170,birds
DK008X182	Fyns Hoved, Lillegrund og Lillestrand	1.960	1351,1110,1140,1150,1160,1170
DK008X184	Æbelø, havet syd for og Næraå	13.161	1351,1365,1110,1140,1150,1160,1170, birds
DK008X185	Havet mellem Romsø og Hindsholm samt Romsø	4.328	1351,1110,1150,1160,1170
DK008X075	Odense Fjord	4.136	1110,1140,1150,1160,1170, birds

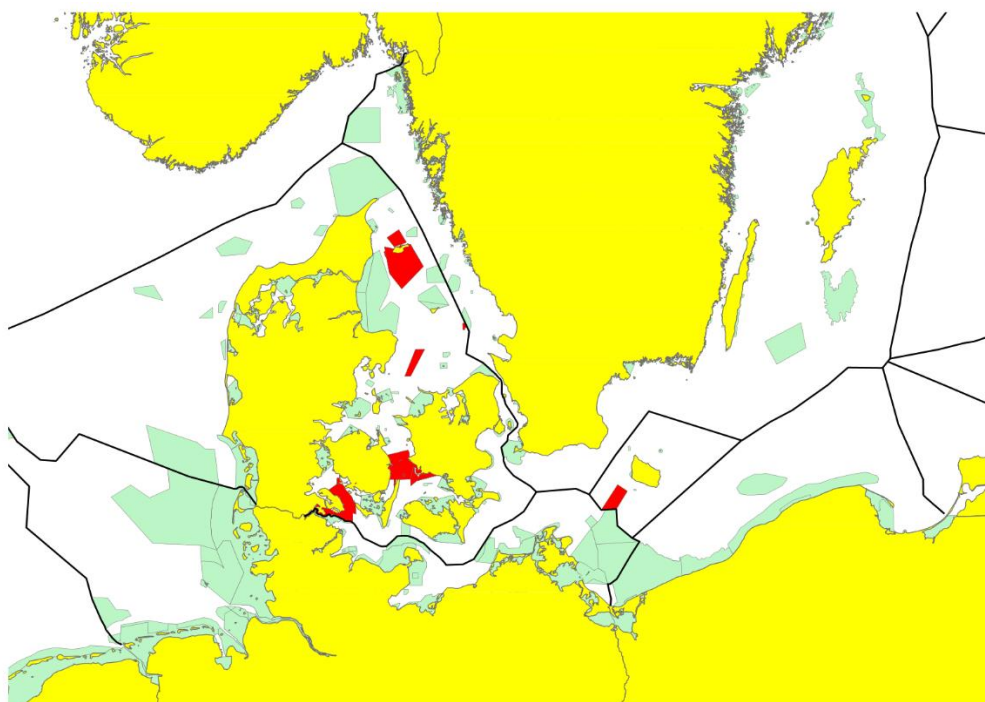
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DK008X047	Lillebælt	35.043	1351,1110,1140,1150,1160,1170, birds
DK008X189	Østerø Sø	57	1150
DK008X190	Centrale Storebælt og Vresen	8.572	1351, 1170, birds
DK008X197	Bøjden Nor	114	1150
DK008X198	Maden på Helnæs og havet vest for	1.696	1351,1110,1160,1170
DK008X199	Vestlige del af Avernakø	124	1150
DK00VA200	Stenrev sydøst for Langeland	1.484	1110, 1170
DK008X201	Sydfynske Øhav	37.000	1110,1140,1150,1160,1170, birds
DK003X202	Hesselø med omliggende stenrev	4.193	1364,1365,1110,1150,1170
DK003X209	Roskilde Fjord	14.810	1110,1140,1150,1160, birds
DK002X110	Salholm og omliggende hav	5.405	1364,1365,1110,1150,1160,1170, birds
DK002X111	Vestamager og havet syd for	6.179	1110,1150,1160, birds
DK004X217	Ølsemagle Strand og Staunings Ø	348	1140,1150,1160
DK005Y220	Havet og kysten mellem Hundested og Rørvig	3.900	1110,1150,1160, birds
DK005X221	Sejersø Bugt og Saltbæk Vig	40.000	1355,1110,1140,1150,1160,1170,birds
DK005X222	Udby Vig	384	1140, 1160
DK005X223	Åmose, Tissø, Halleby Å og Flasken	2.000	1130, 1150, birds
DK005Y229	Skælskør Fjord og havet og kysten mellem Agersø og Glænø	14.000	1110,1140,1150,1160,1170, birds
DK005X097	Hov Vig	45	birds
DK005X276	Røsnæs, Røsnæs Rev og Kalundborg Fjord	5.540	1351,1365,1160,1170
DK006X233	Havet og kysten mellem Præstø Fjord og Grønsund	28.600	1110,1140,1150,1160,1170, birds
DK006X234	Havet og kysten mellem Karrebæk Fjord og Knudshoved Odde	16.458	1365,1110,1140,1150,1160,1170, birds
DK00VA235	Kirkegrund	1.761	1110, 1170
DK006X090	Klinteskov og Klinteskov kalkgrund	2.000	birds
DK006X238	Smålandsfarvandet nord for Lolland, Guldborg Sund mv.	79.069	1364,1365,1110,1140,1150,1160,1170, birds
DK006X242	Nakskov Fjord og inderfjord	7.574	1110,1140,1150,1160,1170, birds
DK006X260	Stege Nor	572	1150
DK006X279	Busemarke Mose og Råby Sø	242	1150
DK007X079	Ertholmene	1.256	1364, 1170, birds
DK00VA247	Kims Top og den Kinesiske Mur	26.092	1170, 1180
DK00VA248	Herthas Flak	1.380	1110,1170,1180
DK00VA249	Læsø Trindel og Tønneberg Banke	8.123	1110,1170,1180
DK00VA250	Store Middelgrund	2.094	1351,1110,1170,1180
DK00VA170	Mejl Flak	3.907	1110, 1170
DK00VA171	Gilleleje Flak og Tragten	15.034	1351,1110,1170
DK00VA253	Ryggen	437	1110, 1170
DK00VA254	Flensborg Fjord, Bredgrund og farvandet omkring Als	64.922	1351,1110,1170, birds
DK00VA255	Hatterbarn	633	1170
DK00VA256	Broen	588	1110, 1170
DK00VA301	Lønstrup Rødgrund	9.283	1170
DK00VA302	Knudegrund	748	1170
DK00VA303	Schultz og Hastens Grund samt Briseis Flak	20.710	1110, 1170
DK00VA304	Munkegrund	1.329	1110, 1170
DK00VA305	Stevns Rev	4.640	1110, 1170

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DK00VA299	Lysegrund	3.158	1110, 1170
DK00VA307	Bøchers Grund	1.098	1170
DK00VA308	Davids Banke	838	1170
DK00VA309	Hvideodde Rev	789	1170
DK00VA310	Bakkebrædt og Bakkegrund	299	1110, 1170
DK00VA340	Sandbanker ud for Thyborøn	6.325	1110
DK00VA341	Sandbanker ud for Thorsminde	6.354	1110
DK00EX284	Risum Enge og Selde Vig	322	1110,1140,1150,1160
DK00DX319	Kastbjerg Ådal	38	1355,1110,1150,1160
DK00DX300	Mols Bjerge med kystvande	2.915	1110,1160,1170
DK00DX321	Kaløskovene og Kaløvig	280	1110,1140,1160,1170
DK00DX322	Kobberhage kystarealer	792	1110, 1170
DK003X297	Jægerspris Skydeterræn	569	1140, 1160
DK004Y335	Ryegård Dyrehave, Bramsnæs mv.	197	1160
DK008X329	Thurø Rev	163	1110,1150,1160,1170
DK00VA330	Ebbeløkke Rev	140	1170
DK003X333	Kyndby Kyst	360	1110,1140,1150,1160,1170
DK00FX122	Ålborg Bugt, østlige del	177.360	birds
DK00VA347	Sydlig Nordsø	246.296	1351,1364,1365,1110
DK00VA348	Thyborøn Stenvolde	7.804	1170
DK00VA257	Jyske Rev, Lillefiskerbanke	24.083	1170
DK00VA258	Store Rev	10.892	1351,1170,1180
DK00VA259	Gule Rev	47.059	1351, 1170
DK00VA260	Fermern Bælt	11.456	1351
DK00VA261	Adler Grund og Rønne Banke	31.910	1110, 1170

**Map Natura 2000 network (Danish Natura 2000 sites concerned are given in separate color**



### **State of Play – implementation of Natura 2000 in Denmark in relation to fishery**

In the first plan period (2010-2015), Denmark has focus on protection of reef structures from irreversible damages due to impact from fishing activity.

The sites concerned in the present proposal, have also been designated for other marine habitats and species, e.g. sandbanks, harbor porpoises, seabirds etc. Formulation of necessary fisheries management measures in relation to the remaining habitats and species will be dealt with at a later stage. Several projects have been launched to increase the knowledge base regarding by-catch of harbor porpoises and seabirds.

Marine habitats and species to be given special focus will also be addressed in the management plans for the second plan period, which came into force in 2016.

In relation to protection of reef structures in the Danish part of the western Baltic Sea, state of play is that once the three sites the present proposal covers, have been fully protected, all Danish sites designated for reefs are protected.

At a national level – protection of reef structures is progressing. Of the 65 sites designated for reef, by end 2016 Denmark expects to have fully protected reef structures in 57 sites.

<b>Natura 2000 site:</b>	<b>Designated for:</b>	<b>Present conservation status/ trend:</b>
Adler Grund og Rønne Banke	1110 Sandbanks 1170 Reefs	Unfavourable conservation status Unfavourable conservation status
Centrale Storebælt og Vresen	1170 Reefs 1351 Harbor porpoises Common eider Sandwich tern Little tern	Unfavourable conservation status Unfavourable conservation status Decreasing Increasing Stable
Flensborg Fjord	1110 Sandbanks 1170 Reefs 1351 Harbor porpoises <i>Birds:</i> Common eider (winthering) Common goldeneye (winthering)	Unfavourable conservation status Unfavourable conservation status Unfavourable conservation status <i>Trend:</i> Decreasing Stable

### **State of play – Sweden**

In Sweden, there is an ongoing process concerning fisheries conservation measures in marine protected areas. A questionnaire was sent out to the County Administrative Boards responsible for the implementation and management of the protected areas in 2014. The results from the questionnaire show that fisheries conservation measures need to be adopted in around 30 marine protected areas in Sweden for the purpose of complying with obligations under environmental legislation. Of these, there are about ten areas located outside 12 nautical miles and therefore will be treated within articles 11 and 18 of the Common Fisheries Policy.

Additionally, a number of marine protected areas are soon to be implemented in order to reach the Swedish environmental milestone target of 10% protection in an ecologically representative, connected and functional network of marine protected areas.

For HELCOM biotopes and biotope complexes see HELCOM MPA database

According to the latest Article 17 reporting, which is done at biogeographical level (MATL), the status of the Natura 2000 habitats and species were in 2013:

- Sandbanks – unfavorable with a negative trend
- Reefs – unfavorable with stable or unknown trend
- Submarine structures made by leaking gasses - unfavorable with stable or unknown trend
- Harbor porpoise - unfavorable with stable or unknown trend

### **State of play – Germany**

In the Baltic Sea, Germany has also designated a range of Natura 2000 sites. Fisheries management measures for the German Natura 2000 sites “Adlergrund” (Protection of habitat types H1110, sandbanks, and H1170, reefs) and “Westliche Rönnebank” (Protection of habitat type H1170, reefs) are in drafting and subject to internal consultations.

### **State of play – Poland**

Poland has designated 17 marine Natura 2000 sites. Almost half of them (8) are protected under the Birds Directive and 8 under the Habitats directive. Additionally, one area (Ławica Słupska PLC990001) is protected under both the Habitats and Birds directives. Most of the sites are located in the Polish territorial waters, except for Ostoja na Zatoce Pomorskiej and Zatoka Pomorska (PLH990002 and PLB990003) which are partly located in the Polish EEZ and Ławica Słupska which is located in the Polish EEZ.

Polish marine Natura 2000 network under the Habitats directive has been designated to protect such habitats as H1110 Sandbanks which are slightly covered by sea water, H1130 Estuaries, H1150 Coastal lagoons, H1160 Large shallow inlets and bays, and H1170 Reefs, and also to protect species of fish (Sea and River lamprey, Twait shad) and marine mammals (Grey seal and Harbor porpoise). Poland does not have plans to enhance the Polish network of marine Natura 2000 sites in the nearest future, however, Sea lamprey will be added in one area, as a purpose for protection (Ujście Odry & Zalew Szczeciński PLH320018).

None of the Polish Natura 2000 sites are located in a proximity to the Danish Natura 2000 sites. Protection plans for Polish marine Natura 2000 sites are under preparation. Most advanced is preparation of protection plans for sites located in the Eastern part of the Polish Baltic coast (sites around the Gulf of Gdansk and the Vistula Lagoon) as well as for the Western part (sites in the Pomeranian Bay).

## **Annex B – Overview of designation of Natura 2000 sites**

<b>Natura 2000 site name</b>	<b>EU-code site number</b>	<b>Designated as PSCI (year)</b>	<b>Revised PSCI (year)</b>	<b>SCI appointed (year)</b>	<b>SAC appointed (year)</b>	<b>Total area (km<sup>2</sup>)</b>	<b>Reef area mapped (km<sup>2</sup>)</b>
Adler Grund og Rønne Banke	DK00VA261	2009	2010	2016		319.10	138
Centrale Storebælt og Vresen	DK008X190	1995	1998	2005	2011	807.20	119.90
Flensborg Fjord	DK00VA254	1995	2003	2005	2011	649.22	51.70

All the above mentioned Natura 2000 sites are also designated as HELCOM marine protected areas.

## **Annex C – TAC’s and Fishing opportunities for 2016**

The Natura 2000 site “Adler Grund and Rønne Banke” is located in the Danish EEZ of the western Baltic Sea, ICES subdivisions 22-24.

In this area, the Member States given in the table below have fishing opportunities, according to Council Regulation (EC) No. 2072/2015, fixing for 2016 the fishing opportunities for certain fish stocks and groups of fish stocks applicable in the Baltic Sea, TACs applicable to union vessels in areas where TACs exist by species and by area are listed.

The table below gives an overview of the total allowable catches (2014) in the western part of the Baltic Sea (subdivisions 22-24), see footnote for further explanation.

MS	TAC (2016)				
	HER*	COD*	PLE**	SAL**	SPR**
Denmark	3.683	5.552	2.890	19.879	19.958
Germany	14.496	2.715	321	2.212	12.644
Finland	2	109		24.787	10.447
Poland	3.419	1.486	605	6.030	59.399
Sweden	4.674	1.978	218	26.870	38.582
Estonia		123		2.020	23.175
Latvia		459		12.644	27.990
Lithuania		298		1.486	10.125

\*) subdivision 22-24

\*\*) subdivision 22-32

HER: herring, *Clupea harengus*

COD: cod, *Gadus morhua*

PLE: plaice, *Pleuronectes platessa*

SAL: salmon, *Salmo salar*

SPR: sprat, *Sprattus sprattus*

## **Annex D – Overview of the 11 information items in the Commission guidelines from 2008**

The table below gives an overview of how the present proposal has covered the 11 information items of the Commission's guidelines from 2008<sup>34</sup> concerning development of proposals for fisheries management measures in marine Natura 2000 within the scope of the CFP.

	Section
1. Comprehensive description of the natural features including distribution within the site	2.3.2, 5.1
2. Scientific rationale for the site's selection in accordance with the information provided in the Natura 2000 data form. Intrinsic value of its features. Specific conservation objectives.	2.3
3. Basis for the spatial extent of the site boundary clearly justified in terms of conservation objectives.	2.3
4. Threats to habitats and species from different types of fishing gear. List of other human activities in the area that could damage the habitats.	2.3, 4.1
5. Fleet activity in the area and in the region, distribution of fleets (by nation, gear and species), and information on target and by-catch species, all over the last 3 years.	6.1
6. Annual trends in fisheries over the last 3 years.	6.2
7. Proposed fisheries management measures to maintain the habitats features in favorable condition. Are they proportionate and enforceable? Other conservation measures that apply to the area.	1.3, 3.1, 4, 5.2
8. Control measures envisaged by the Member State, possible ecological and control buffer zones to ensure site protection and/or effective control and monitoring measures.	6.4
9. Measures to monitor and assess the maintenance and/or recovery of the features within the site.	6.4
10. Coordination with neighboring Member States as appropriate.	3.2
11. Evaluation of possible displacement of fishing effort and impact on new areas.	6.3

<sup>34</sup> Fisheries measures for marine Natura 2000 sites – a consistent approach to requests for fisheries management measures under the Common Fisheries Policy:  
[http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish\\_measures.pdf](http://ec.europa.eu/environment/nature/natura2000/marine/docs/fish_measures.pdf)



## **Annex E – Scientific advice regarding protection of reef structures through buffer zones**

### **Protection of stone reefs (habitat code H1170) and bubbling reefs (habitat code H1180)**

For protection of stone reefs and bubbling reefs (habitat code H1170 and H1180) different protection measures can be implemented. DTU Aqua has in relation to the present proposal provided scientific advice to the Danish AgriFish Agency with regard to protection of reef structures.

DTU Aqua has analyzed fishing activity in and around the concerned Natura 2000 sites using VMS data from Danish fishing vessels (vessels => 12m in length in 2012, vessels >=15 m in length in 2008-2011) for the period 2008-2012. Based on these analyses, DTU Aqua has advised upon the need for the protection of habitat code H1170 and H1180 against any unintended impact from mobile bottom contacting fishing gear, and that a safety zone (buffer zone) should be implemented around the mapped reef structures.

The safety zone is calculated by taking water depth, warp length and the length of the fishing gear into account. The standard warp length used by trawlers in the concerned Natura 2000 sites is three times the water depth, when water depth is less than 200 meter.

Water depth around the marine habitats (H1170 and H 1180) varies from 30 – 40 meters depth in the Kattegat area where the concerned Natura 2000 sites are located. DTU Aqua has advised the Danish AgriFish Agency to use the proportion 4:1 + length of the gear + 1 times the water depth for safety. This method has resulted in a buffer zone of 240 meters around the mapped reef structures – code H1170.

DTU Aqua has furthermore advised that for bubbling reefs (habitat code H1180) usage of any other gear type ought to be prohibited if full protection of this reef type is wanted.

The method of safety zones (buffer zones) is in line with the advice by ICES to a NEAFC request of the appropriateness of buffer zones (ICES Advice 2013, Book, 1.5.5.2. Special request, Advice June 2013). ICES Advice June 2013 is attached below.

### 1.5.5.2

Special request, Advice June 2013

**ECOREGION** General advice  
**SUBJECT** Evaluation of the appropriateness of buffer zones

#### Advice summary

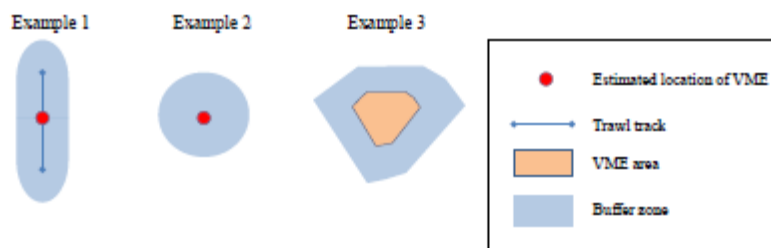
Both the VME location accuracy and a buffer zone are considered when delineating the closure boundary around VMEs. ICES is confident that the buffer zone considerations used to define the boundaries around the area closures are appropriate and therefore adequate for the protection of VMEs. A schematic diagram of the approach to generate buffer zones is presented. The buffer zones will always be included in ICES advice and will be illustrated where appropriate to the scale of the closure.

#### Request

*ICES is requested to evaluate whether buffer zones applied in the current bottom fishing closures are appropriate. Additionally, ICES is requested to include, specify and illustrate buffer zones in its future advice on closures in the Regulatory Area as appropriate.*

#### Advice

Two different considerations are used to delineate buffer zones around VMEs; one is linked to the VME location accuracy, the other to setting a buffer zone around the VME location (Figure 1.5.5.2.1).



**Figure 1.5.5.2.1** Three conceptual examples of the two considerations for delineating buffer zones around VMEs, applied to three theoretical examples of VME closures. Example 1: isolated VME detection with low geospatial certainty (e.g. trawl track); Example 2: isolated VME detection with high geospatial certainty (e.g. ROV observation); and Example 3: area identified as hosting a VME.

#### Consideration 1. VME location accuracy

The data used by ICES to assess the likelihood of VME presence consists of mainly point records of species (Figure 1.5.5.2.1). While recognising this is the best available data, there are varying levels of spatial uncertainty associated with the records, ranging from trawl bycatch with low spatial accuracy (Example 1) to dynamically positioned ROV observations with high spatial accuracy (Example 2) and areas identified as hosting VMEs (Example 3). This uncertainty in VME location is dealt with by outlining the minimum boundary that encompasses the records. In the case of records derived from trawling, the deviation perpendicular to the track is considered negligible relative to the length of the track and is not taken into account in the VME location.

While spatial accuracy of the position of VMEs has improved over time, there are still a high number of records where the location accuracy is unknown. In such cases a simple buffer is applied (see Consideration 2).

#### Consideration 2. Buffer zone around VME location

ICES considers a buffer zone to be a spatial margin of assurance around the VME to avoid adverse impact (Figure 1.5.5.2.1). The spatial extension of the buffer zone may vary and is based on the following:

- The potential for fishing gear to stray into the VME is related to the uncertainty of the location of the fishing gear relative to the known location of the vessel. This will be a function of water depth and the trawl warp length deployed. In deep-water trawling, the typical warp length deployed decreases with water depth, from around 3:1 at 200 m to 2:1 at 500 m and more. For VMEs that occur on flat or undulating seabed a buffer zone of approximately two (>500 m depth) or three times (< 500 m depth) the local depth is advised.

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- In the case of VMEs on very steep slopes, the risk of straying of bottom trawls is mitigated by the fishers' own incentive to avoid the steep slopes and cliff edges, in which case the buffer zone may be reduced.
- In some cases the presence of geomorphological features are used to define boundaries for closures on the basis that they are considered to be VME elements, in which case the VME reflects the topographic relief of the VME element without a buffer zone.

As both the VME location accuracy and a buffer zone are considered when advising on a closure boundary around VMEs, ICES is confident that the buffer zone considerations used to extend closures beyond the immediate estimated position of a VME are appropriate and therefore adequate for the protection of VMEs.

The buffer zone approach described here does not take into account any issues specifically related to enforcement.

**Source**

ICES 2013. Report of the ICES/NAFO Joint Working Group on Deep-water Ecology (WGDEC). ICES CM 2013/ACOM: 28.

## **Annex F - Overview of formal consultations**

Since the initiative for protection reef structures in Natura 2000 sites was launched in spring 2011, formal and informal consultations have been held with various stakeholders. The table below lists the meetings held in relation to the present proposal.

<b>Date</b>	<b>Meeting</b>	<b>Participants</b>
9 May 2016	Pre-consultation meeting	DK (chair), DE, SE, PL
23 May 2016	Consultation with Natura 2000 Dialogue Forum and Advisory Councils	National stakeholders (fishery and green NGO's), BSAC and NSAC
22 June 2016	1. Meeting ad hoc working group	DK (chair), DE, SE, PL
5 July 2016	Consultation with DG MARE and DG ENVI	Marta Janakakis, Fotios Papoulas, Marita Arvela
25 August 2016	2. Meeting ad hoc working group	DK (chair), DE, SE, PL, BE
14 September 2016	3. Meeting ad hoc working group	DK (chair), DE, SE, PL

## **Annex G - Summary of outcome of the regional coordination process with Member States and the European Commission**

### ***A) Outcome of meetings in the established ad hoc working group***

Meetings were held on the following dates:

- 22 June 2016
- 25 August 2016
- 14 September 2016

Minutes of these meetings are given below.

#### **Pre-consultation meeting 9 May 2016 with representatives from the Swedish, German and Polish environmental and fishery authorities**

On 9 May 2016, the Danish AgriFish Agency and Danish Nature Agency presented proposals for fisheries management measures with the aim of ensuring adequate protection of stone and bubbling reefs located in the Kattegat and the Western Baltic Sea. All Member States with fishing rights in the Baltic Sea and North Sea as well as the European Commission had been invited to the pre-consultation meeting.

Prior to the pre-consultation meeting, draft proposals were sent to the relevant Member States and the Commission as well as national stakeholders and the Advisory Councils for the Baltic and North Sea, respectively.

#### *Summary of outcome of the pre-consultation meeting*

##### **1. Introduction: Natura 2000 and designation of sites**

Denmark has designated 97 marine Natura 2000 sites, which equals approximately 18 pct. of Denmark's territorial waters. A significant number of these have been designated for protection of reef structures (65 in total). In Denmark, the Danish Nature Agency is the responsible authority for the designation of Natura 2000 sites, formulation of management plans and conservation objectives as well as mapping the marine habitats.

In Denmark, the Natura 2000 sites have been designated over a period of time between 2004 and 2010, thus Denmark operates with two 'plan periods'. Necessary actions must be taken before 2016 for sites designated before 2010 and before 2020 for the sites enlarged and/or designated in 2010.

The Danish AgriFish Agency is the responsible authority in Denmark for taking the necessary actions in relation to fishery in order to ensure that fishing activities do not negatively affect the marine habitats and species for which the site has been designated. The provisions of the Habitat Directives was included in the Fishery Act in 2008.

The Danish AgriFish Agency initiated the work of protection of reefs in spring 2011 with focus on 14 Natura 2000 sites. Regulation of those sites are now regulated in EU law in form of a delegated act 2015/1778 and the national order 1048/2013.

The current proposals cover protection of reef structures in 7 Danish Natura 2000 sites. One site in the Kattegat ("Kim's Top") as well as sites located in the North Sea will follow later in 2016/2017.

Since all sites (7 in total) in the proposals are located where other Member States have fishing opportunities, regional coordination is required, before the proposals can be sent to the Commission in the form of joint recommendations by the Member States with direct management interests.

##### **2. Proposed fisheries management measures** ***Short introduction***

The two Danish proposals aim at protecting reef structures located in the Kattegat and the Western Baltic Sea. Denmark proposes to protect reef structures (H1170 and H1180) from fishery with mobile bottom contacting gears. Areas mapped as bubbling reefs will be protected from all fishing activities. To ensure adequate protection from mobile bottom contacting gears, a buffer zone of 240 meter will be placed around the mapped reef structures.

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The size of the buffer zone is based on scientific advice from the Danish Technical University, Institute of Aquatic Resources and ICES. The size of the buffer zone depends on water depth and wire length, and is calculated as 6 x water depth, which for the Kattegat and the Western Baltic Sea is approximately 40 meter.

The proposed fisheries management measures include protection of 7 Natura 2000 sites<sup>35</sup> located in the Kattegat (4 sites) and the Western Baltic Sea (3 sites). Three sites are located in the EEZ (outside 12 nautical miles), where the remaining 4 sites are located in the 3 to 12 nautical mile zone.

The 7 Natura 2000 sites have been designated for the protection of reefs. Some sites have also been designated for sandbanks, harbor porpoises and seabirds. The proposed fisheries management measures, at this stage, only include protection of the mapped reef structures within the sites. At a later stage it will be assessed whether management measures are needed for the other marine habitats and species once on-going projects on bycatch rates etc. have been finalized by 2017. Sites with already mapped sandbanks will be revisited.

Prior to the pre-consultation meeting, the Danish AgriFish Agency has presented the proposed fisheries management measures to national stakeholders including NGO's. National stakeholders and the Advisory Councils (BSAC and NSAC) have been invited for a meeting on 23 May 2016. The next meeting with concerned Member States and the Commission will take place on 22 June 2016.

Sweden, Germany and Poland attended the meeting. United Kingdom, Belgium and France had, prior to the pre-consultation meeting, communicated that they will not participate in the regional coordination process, however, they all wish to follow the ongoing process towards reaching joint recommendations 'on the side'.

Latvia, Lithuania, Estonia, and Finland did not participate in the pre-consultation meeting. Communication is on-going between Denmark and these Member States in relation to the Danish proposals.

### ***Natura 2000 in Denmark: Formulation of management plans and mapping***

The Danish Nature Agency informed about the process of mapping the Natura 2000 sites designated for reefs. In 2016, detailed mapping of the remaining Danish Natura 2000 sites designated for the protection of reefs (primarily in the North Sea) will be available. Different techniques, as described in detail in the two proposals, are used. For one site, the site called "Centrale Storebælt" two different mapping techniques with different resolution have been used to map the marine habitats. Conflict between fishery with mobile bottom contacting gear and areas mapped as reefs is seen for part of the area. The so-called conflict area has been mapped with a low resolution technique, thus the area is not proposed closed for fishing since it cannot be documented for sure that reefs are present here.

### ***Scientific advice***

DTU Aqua explained the scientific rationale behind the buffer zone and how the formula has been developed. The size of the buffer zone is dependent on water depth and trawl wire length. The buffer zone must have a size large enough to ensure that the trawl does not enter the area when the vessel is turning. In both proposals (e.g. Kattegat and the western Baltic) an average water depth of 40 meters are used, which gives buffer zones of min. 240 meter (6 x water depth). ICES has given advice on the same method.

### **3. Outcome of the pre-consultation held on 9 May 2016**

After a presentation of the proposed fisheries management measures, the floor was open for questions and discussion. Copies of the presentations given are attached.

Scrutiny of the two proposals will take place in the up-coming meeting in the ad hoc working group (22 June 2016).

The discussion can be centered around the following information topics:

1. Data analyses and availability and study reserve
2. Scrutiny of the two proposals
3. Holistic approach and protection of species and MFSD obligations
4. Control and enforcement – usage of AIS
5. Formation of the ad hoc working group

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<sup>35</sup> In the Kattegat: "Store Middelgrund" (EU site code: DK00VA250), "Schultz, Hastens Grund samt Briseis Flak" (EU site code: DK00VA303), "Strandenge på Læsø og havet syd herfor" (EU site code: DK00FX010) and "Havet omkring Nordre Rønner" (EU site code: DK00FX257).

In the Western Baltic Sea: "Centrale Storebælt og Vresen" (EU site code: DK008X1901), "Flensborg Fjord, Bredgrund og farvandet omkring Als" (EU site code: DK00VA254) and "Adler Grund og Rønne Banke" (EU site code: DK00VA261).

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- 1) Analysis of fishery data is a great challenge in these regional coordination processes. Several Member States are yet to forward their fishery data.

Sweden has forwarded data in the right format and for the whole data period of 2011-2014. Germany has forwarded data for the period 2011-2012 with no VMS positions attached. At the meeting, the Danish AgriFish Agency requested for supplementary fishery data from Germany and Poland.

It was agreed that Germany will forward all the required fisheries data as soon as possible. Germany therefore has a study reserve in relation to their fishery data and how fishery in relation to German vessels are presented in the draft proposal.

For the site "Flensborg Fjord" the German authorities also need to consult their local fishery organization in the area.

Poland has forwarded data for an area called "D7" which partly is located inside the "Adler Grund og Rønne Banke". Poland will scrutinize the proposals and assess whether more fisheries data is to be included in the proposals. However, data for D7 will most likely be sufficient for Poland.

Estonian data has also been received, and further dialogue is needed in order to assess whether the dataset is complete. Before the next meeting, this uncertainty will be discussed with the Estonian fisheries authorities.

It is up to the Member State to decide on the data presented for their respective fishery activity is adequately addressed.

The 6 month time line does not commence until all fishery data from the involved Member States has been made available and/or the Member State officially communicates to the Danish AgriFish Agency that they will abstain or will support the joint recommendations without actively taking part in the regional coordination process.

- 2) The Danish AgriFish Agency invited the participating member States to forward any comments to the presented proposals in due time before the next meeting, which will be the first meeting in the established ad hoc working group.

On a more general note, it was agreed that the Danish proposals should be supplemented with maps showing other Member States Natura 2000 sites, which are in direct or located closely to the Danish sites. Sweden and Germany were on that basis requested to, as soon as possible, forward relevant 'shape-files'.

It was also agreed that for those sites – Sweden and Germany will forward a short description of the Natura 2000 sites including a few lines on how far the Member State is with formulation of necessary fisheries management measures.

**It was agreed, that any comments and editorial changes to the two proposals should be forwarded to the Danish AgriFish Agency by the 31<sup>st</sup> May 2016 at the latest.**

- 3) The Danish proposal is solely focusing on protection of reef structures, yet several sites have also been designated for sandbanks, harbour porpoise and seabirds.

Sweden was interested in discussing the eco-system based approach and the linkages to the MFSD provisions. The Danish approach is a thematic approach whereby the habitat types most vulnerable to fishery are protected first. This process was launched in 2011 and focuses on the 65 sites designated for reefs. The task therefore is quite substantial. Protection of sandbanks in relation to fishery is not well documented, and was therefore not prioritized as part of the task of ensuring adequate protection, also due to the low level of fishing activity taking place in and around the sites.

Protection of reef structures in the 65 Natura 2000 site is an important contribution to Denmark's effort to achieve good environmental status by 2020 (MFSD).

- 4) Questions concerning control and enforcement of the proposed fishery management measures were in relation to usage and/ or supplementing VMS data with AIS data, and how DK sees AIS data being used as a control measure.

Analysis of VMS data indicate that there is no or very limited fishing activity in the areas mapped as reefs. The enforcement of the coming fishery management measures in relation to protection of reefs will be part of the sea

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going fisheries inspection and will be followed 24/7 by the Danish FMC in Kolding. In some cases AIS data might be used to supplement VMS data, however, DK sees AIS as a safety measure, which in general should not be coupled to fishery control.

5) The present participants agreed to appoint representative to the ad hoc working group, which is to finalize the proposals and draft a joint recommendation. Both Sweden, Germany and Poland were interested in being present in the ad hoc working group. It was agreed, that one working group was enough. Future meeting dates were agreed upon to be:

1. Meeting in the established ad hoc working group: 22<sup>nd</sup> June 2016
2. Meeting in the established ad hoc working group: 25<sup>th</sup> August 2016

The topics to be addressed in the ad hoc work meetings will, besides discussion of the management measures and fisheries data, also include orientation by each Member State of their national formal process in regards to the Danish proposals.

**Future step/ up-coming regional coordination process**

The Danish AgriFish shortly outlined the expected timeframe for finalizing the proposals and submitting them, together with the joint recommendations to the European Commission. The proposals are expected to be finalized in autumn 2016, and will thereafter be submitted to the European Commission - hopefully by the end of 2016.

*National process with stakeholders and AC's*

On 23 May 2016 national stakeholders and the two Advisory Councils have been invited for a presentation of the two proposals. At the next meeting in the ad hoc working group, the Danish AgriFish Agency will present the outcome of the meeting with stakeholders and two AC's.

*Future proposals*

Later in 2016, the Danish AgriFish Agency plans to commence the working of formulating fisheries management measures for the Natura 2000 sites placed in the North Sea. Regional coordination process, however, will not be launched before 2017.

**List of participants: Pre-consultation 9 May 2016**

***Denmark:***

Ministry of Environment and Food of Denmark/ Danish Nature Agency: Marie-Louise Krawack

Ministry of Environment and Food of Denmark / Department: Bertram Tobias Hacke

Ministry of Food, Agriculture and Fisheries/ Danish AgriFish Agency: Anja Gadgaard Boye, Elsbeth Teichert, Lone Agathon Jensen, Jacob Handrup, Pernille Birkenborg Jensen

Danish Technical University/ Institute of Aquatic Resources: Josefine Egekvist

***Germany:***

Thünen Institute, Institute of Baltic Sea Fisheries: Christian von Dorrien

Federal Ministry of Food and Agriculture, Bruno Hoffstadt (last minute cancellation)

***Sweden:***

Ministry of Rural Affairs: Bjørn Åsgard

Swedish Agency for Marine and Water Management: Malin Wilhelmsson, Lena Tingström



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**Poland:**

Ministry of Maritime Economy and inland waterways: Katarzyna Kaminska

## **Minutes of the 1. meeting in the ad-hoc working group on the Danish proposals for fisheries management measures in 7 Natura 2000 sites in the Kattegat and Baltic Sea**

*This was the first meeting held in the established ad-hoc working group which mainly focused on an in-depth scrutiny of the Baltics Sea proposal text and discussion on fishery data.*

**The meeting took place at the Danish AgriFish Agency in Copenhagen on 22 June 2016.**

### **1. Welcome by the Danish AgriFish Agency and tour de table**

*Chair Anja Boye made an introduction and presentation of the agenda. Participants introduced themselves and their organization (Annex 1 below).*

The chair explained that the main focus of today's meeting is a scrutiny of the proposal text, as agreed upon at the pre-consultation meeting, and to discuss fishery data and availability and the challenge of lack of data.

Prior to this meeting, Sweden had sent comments, which have been circulated to the contact persons of the established ad-hoc working group.

The chair pointed out that several Member States are not present in today's meeting, thus there is a need to discuss this further in the ad-hoc working group under the agenda item on fishery data and data availability.

The Danish AgriFish Agency has organized a meeting with the European Commission (DG MARE and DG ENVI) on 5 July 2016 in Brussels. The outcome of this consultation will be circulated to the contact persons of the ad-hoc working group.

### **2. Adoption of the agenda and outcome of the pre-consultation meeting**

The circulated agenda was adopted. The minutes of the pre-consultation meeting held on 9 May 2016 had been circulated for commenting. Sweden had forwarded comments, which have been taken on-board.

The chair asked if there were more comments before the minutes can be adopted? It was agreed that Sweden would forward editorial comments and that the term 'mobile bottom contacting gears and used in relation to gears proposed banned and that the term 'contact persons' should be used in relation to the ad-hoc working group, since participants may vary depending on topics to be discussed.

We realize it was not included in yesterday's email – we apologize for this

The chair informed that the minutes of the pre-consultation meeting as well as from meetings in the ad hoc working group will be given in Annex G of the proposals.

### **3. Scrutiny of the proposal text**

The chair proposed that a scrutiny of the proposal text be focused on the Baltic Sea proposal, since all Member States have direct management interests in the site 'Adler Grund and Rønne Banke'.

It was agreed that Sweden would forward comments to the Kattegat proposal as soon as possible (was received the same day).

*Summary of changes made to the Baltic Sea proposal (all changes are given in the proposal named 'Third version – July 2016'):*

- Editorial changes
- Changes to section 1.3 on gear codes to be banned – there was a need to make it more clear which gear types are to be banned (mobile gears was erased)
- Fishery sections (section 6 was not discussed since fishery data has not yet been forwarded/ analysed for all Member States.

Sweden pointed out that according to earlier processes, it is important that each Member State can forward proposals according to their national conditions and intentions, and that each process is not precedential to upcoming processes. The group had a discussion on this and agreed.

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The Danish proposal solely address physical damage to reefs and bubbling reefs. These sites have also been designated for other habitats and species, e.g. sandbanks, harbour porpoise and seabirds. The effect of fishing activity on these habitats and species will be addressed at a later stage. The group discussed this and agreed to developed Annex A so that this information is clearly described there, as are the state of play for all Member States, since several sites are located in close vicinity of each other.

**4. Discussion of fishery data and availability**

The chair gave a short introduction on state of play in relation to fishery data:

- SE has forwarded the necessary fishery data
- DE forwarded their fishery data yesterday and we will now compile the data and included it in the proposal text
- PL has forwarded fishery for their 'sub-squares', which is the data form Poland uses and finds sufficient for this process
- EE has forwarded fishery data for 2010-2012
- Other MS: no fishery data has been received

It was agreed between the participating Member States that fishery data should be updated with 2015 data, whereby the data period will be 2011-2015.

2015 fishery data is to be forwarded to the Danish AgriFish Agency by 13 July 2016.

There was a discussion on how to handle lack of data. The chair informed that the Danish AgriFish Agency has requested DTU Aqua for an analysis of VMS and landing data forwarded by Member States, when they carry out fishing activity in the Danish EEZ. Poland also highlighted this possibility of data analysis.

The analysis will be done at Member State level and will be used in further dialogue with the Member States, which has not yet taken part in the regional coordination process (*the analyses is attached since it has been finalized already*). Lack of fishery data will also be discussed with the Commission.

The possibility of abstaining is perhaps a way of addressing this challenge. This issue also can be forwarded as an issue to the High Level Groups.

**5. Outcome of meeting with national stakeholders and Advisory Councils held on 23 May 2016 (draft outcome attached)**

The chair informed of the outcome of the consultation with national stakeholders and the Advisory Councils for the Baltic Sea and North Sea, respectively. A copy of the draft minutes were circulated prior to today's meeting.

The outcome can be summarized to the following:

- Green NGOs: full protection at site level, combine closure in relation to H1180 for the site 'Havet omkring Nordre Rønner', combine protection of reef structures with sandbanks and harbour porpoise, and apply a more holistic approach to MPA management and fishery regulation
- BSAC: welcomes and supports the Danish initiatives
- NSAC: welcomes the Danish initiative. The NSAC raised several general questions regarding rationale, scientific basis in support, protection of sandbanks vs. reefs
- Danish Fishermen PO: welcomes the Danish initiative, and informed the forum that the organization has been involved in the process of placing buffer zones. DFPO acknowledges the need for fishery management measures and supports the thematic approach and site specific measures, rather than total closure at site level.

Elsbeth Teichert gave a short introduction to how Denmark involves stakeholders in these regional coordination processes, including the AC's. The overall framework for the dialogue is the adopted ToR for the technical expert groups and our national *Natura 2000 Dialogue Forum*.

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The main framework is that Member States with direct management interests are the adopting parties whereas stakeholders, including the AC's are involved parties on an overall basis of transparency. The AC's however, must be consulted.

**6. Discussion of future process and meeting dates**

- 6 month deadline: what is required in relation to data and information?

It was agreed that this topic is to be discussed at the next meeting, since fishery data is still to be updated.

- 2. meeting is scheduled for 25 August 2016: topics are fishery data and finalization of proposal text

Future process: Two more meeting dates in September and October:

- 14 September 2016 (Agree on fishery section – discussion on formal processes in MS)
- 12 October 2016 (Final meeting in ad hoc working group – formal agreement by BALTFISH and fishery directors)

**7. AOB.**

The meeting was closed.

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**Annex 1 List of participants: 1 meeting in the ad hoc working group**

**Denmark**

Marie-Louise Krawack (Danish Nature Agency)

Elsbeth Teichert and Anja Boye (Danish AgriFish Agency)

**Sweden**

Lena Tingström and Malin Wilhelmsson (Swedish Agency for Marine and Water management)

**Germany**

Christian von Dorrien (Von Thünen Institute)

**Poland**

Katarzyna Kaminska (Ministry of Maritime Economy and Inland Navigation, Fisheries Department/ Operational Unit

Michael Makowski (Ministry of Maritime Economy and Inland Navigation, Fisheries Department/Fishery Monitoring Centre Poland)

Tomasz Owczarek (Ministry of Maritime Economy and Inland Navigation, Fisheries Department/ Operational Unit)

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**European Commission**

The Danish AgriFish Agency will meet with the European Commission (DG ENVI and DG MARE) on 5 July 2016 in Brussels.

## **Minutes of the 2. meeting in the ad-hoc working group on the Danish proposals for fisheries management measures in 7 Natura 2000 sites in the Kattegat and Baltic Sea**

*This was the second meeting held in the established ad-hoc working group which mainly focused on an in-depth scrutiny of the Baltics Sea proposal text and discussion on fishery data.*

**The meeting took place at the Danish AgriFish Agency in Copenhagen on 25 August 2016.**

### **1. Welcome by the Danish AgriFish Agency and tour de table**

*Chair Anja Boye made an introduction and presentation of the agenda. Participants introduced themselves and their organization (Annex 1).*

The chair explained that the main focus of today's meeting is a scrutiny of the proposal text as well as a discussion of fishery data, which has been updated with 2015 data. Also, the outcome of the meeting with the European Commission will be given and discussed. The European Commission will not participate in today's meeting.

The chair pointed out that several Member States are not present in today's meeting, however, Finland and Estonia have formally communicated that they support the Danish proposal for fisheries management measures in the Baltic Sea. Denmark will in the up-coming BALTFISH meeting give a state of play in relation to the Baltic Sea proposal and of the need for consensus from all Member States for the joint recommendation to be forwarded to the European Commission.

### **2. Adoption of the agenda and outcome of the 1. meeting in the ad hoc working group**

The circulated agenda was adopted. The minutes of the 1. meeting in the ad hoc working group held on 22 June 2016 had been circulated for commenting. Poland and Sweden have forwarded comments, which have been taken on-board.

The minutes were adopted without further changes.

The chair informed that the minutes of the pre-consultation meeting as well as from meetings in the ad hoc working group will be given in Annex G of the two proposals. When the fourth draft is circulated, this annex will be attached in a separate word file.

### **3. Outcome of dialogue with the European Commission (DG ENVI and DG MARE)**

On 5 July 2016, Elsbeth Teichert and Anja Boye met with the European Commission. From DG MARE, Marta Janakakis participated, where Fotios Papoulias and Marita Arvela participated from DG ENVI.

The chair gave the following summary of the meeting held. DG ENVI communicated they are in the process of formalizing how MS's proposals are scrutinized. DG ENVI has requested their consultants to assess the Danish proposals – outcome of this consultation is attached to the minutes alongside DK's reply.

DG ENVI's comments can be summarized to the following:

- The comments focused primarily on article 6 provisions
- Adequate description of fishing activity from smaller vessels < 12 meters,
- Habitat sensitivity and impact from different fishing gears  
rationale for not prohibiting static gears on habitat type H 1170 (stone reef),
- Expected effects of the proposed measures, as fishing intensity is relatively low, how the proposed measures support other initiative as DK's combined effort to improve the conservation status for reef structures in Danish waters.
- DG ENVI also questioned the lack of site specific conservation objectives

DG MARE's comments were centred around impact from fishing along side impact from other activities, control and enforcement and the

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legal framework of forwarding a joint recommendation and involvement of STECF.

Based on this consultation, the draft proposals have been edited and it is now clear that the Danish initiative to protect reef structures seeks to fulfil the provisions of Art. 6(1) and 6(2). A new section, section 6.4.3 has been drafted to describe in more detail the expected effects of the proposed measure. The ad hoc group agreed to this new section and text.

Also, text on rationale for not prohibiting gillnet fishery in H1170 has been added in section 4 as has a section on effects of closure of fishing. The text is based on scientific advice from DTU Aqua:

*"Several studies have focused on habitat sensitivity in relation to fishery and different gear types. Majority of studies have found low sensitivity between gillnet fishery and stone reef structures".*

*"There are very few studies of boulder reefs and the associated effects of closure of bottom contacting fishery in Northern European waters. Most studies on boulder reefs have focused on the effects of closure of fishing with passive gears and angling on target species populations. Studies by Howarth et al. (2015) do provide some evidence from UK waters (Lamlash Bay) on benefits to benthic communities as well as fish populations from exclusion of fisheries including bottom trawling and scallop dredging, as well as trap and creel fishing. This study shows apposite effect on fish and marine organisms".*

The meeting discussed the outcome of the consultation and the DG ENVI's wish to harmonize the scrutiny of MS's proposals for fisheries management measures, and the role of consultants in the implementation of the Common Fisheries Policy.

The meeting agreed that the proposal will not benefit from including a sensitivity matrix, since there is clear evidence of this activity having low, if no, impact on stone reefs.

#### **4. Final scrutiny of the proposal text**

The chair proposed that a scrutiny of the proposal text be focused on the Baltic Sea proposal, since all Member States have direct management interests in the site 'Adler Grund and Rønne Banke'.

It was agreed that any changes made to the Baltic Sea proposal would be transferred to the Kattegat proposal. Editorial comments to the Kattegat proposal was discussed after A.O.B.

*Summary of changes made to the Baltic Sea proposal (all changes are given in the proposal named 'Fourth version 2016'):*

- Editorial changes made – however, no substantial changes were made.
- It was agreed to remove listing of gear types in section 1.3 'Recommendations to be implemented', since these are given in the table below.
- Fishery sections and related annexes have been updated with 2015 fishery data. There was an agreement to maps, tables and figures, except for text in section 6.2 on German fishing activity in the site 'Storebælt og Vresen'. This section has been updated in the Fourth version of the draft proposal.
- Discussion on how to display buffer zone coordinates. It was agreed

*Summary of changes made to the Kattegat proposal (all changes are given in the proposal named 'Fourth version 2016'):*

- Same editorial changes as above for the Baltic Sea proposal.
- Fishery sections and related annexes have been updated with 2015 data. There was an agreement to maps, tables and figures except for map 6b showing VMS positions for German fishing activity on 'Store Middelgrund', where VMS points need to be swapped. This map has been updated and map corrected in the Fourth version of the draft proposal.

#### **5. Discussion of fishery data**

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The chair gave a short introduction on state of play in relation to fishery data. Sweden, Poland and Germany have all forwarded 2015 fishery data. Germany has also updated with 2013 and 2014 data. Estonia has forwarded fishery data for 2010-2012.

The meeting agreed that sufficient information is available – also in relation to fishery data. Germany agreed in the meeting, whereas Poland and Sweden have forwarded their reply by email after the meeting.

To display fishing activity in and around the site 'Adler Grund og Rønnebanke' – the analyses carried out by DTU Aqua displayed in VMS maps, will be included in Annex K, whereby fishing activity for all Baltic Sea Member States for vessels above 12 meters will be given.

Poland requested for additional time to check the section on Polish fishery data. Poland has subsequently communicated that all data is correctly displayed and that additional VMS positions will not be forwarded. The above mentioned analyses is sufficient, also in relation to Polish activity.

**6. Draft Joint Recommendation – discussion of form and format**

The chair explained the circulated draft joint recommendation (Baltic Sea proposal) in relation to the previous regional coordination process chaired by Denmark, and that of the Swedish proposal for Bratten MPA.

Elsbeth Teichert explained how DG MARE in positive terms has welcomed the previous joint recommendation as containing the necessary data for elaborating a delegated act, which means they request for all explanations and background information to be given in the proposal/ background document.

The only changes made were a correction of section 2 'Recommendations to be implemented', since it is a direct copy of section 1.3 in the proposal text.

It was agreed that the draft joint recommendation also should be named with a date to be able to track different versions.

There were no further changes made to the draft besides correcting the date of the evaluation of the control model, which is summer 2018.

**7. Discussion of future process and meeting dates**

The next meeting (3. meeting in the ad hoc working group) is scheduled for 14 September 2016. The overall aim of this meeting is to agree to the proposal and joint recommendation at a technical level prior to formal agreement by respective fisheries directors/ ministers.

In case there is a need, the 4. meeting will be held on 27 October 2016. **Kindly note the new date.**

STECF meets on 24 October 2016, which is believed to be too soon for the Baltic Sea proposal, since sufficient time must be given for the formal approval process in each Member State.

Denmark will assess whether the Kattegat proposal can meet this deadline – however, it depends on the formal approval process in Germany and Sweden. It is not yet official when STECF will meet in 2017, however, once the formal approval has been given by all Member States, the proposals will be forwarded to the European Commission, by BALTFISH for the Baltic Sea proposal and by Denmark accompanied by signed letters by the Fisheries Directors from Sweden and Germany for the Kattegat proposal.

It is however unclear to the member States whether STECF can be consulted in a written procedure outside the fixed meeting dates. This could be helpful to meet the 6 month deadline obligation for the Member States and the 3 month obligation for the European Commission after receiving a joint recommendation.

There was a short discussion of how these proposals are approved and the proposal forward to the European Commission as a joint recommendation. The agreed terms of References (attached to the minutes) has a specific section on the formal approval process.

**8. AOB.**

Germany raised the question of ensuring adequate protection of harbour porpoise, since some of the sites concerned are also designated for harbour porpoise. The chair informed of the on-going process of collection of bycatch data. Several initiatives have been launched to fill the knowledge gap. In July a large scale bycatch project was funded by EMFF to fill the data gap of bycatch in Danish gillnet fishery. Hopefully in 2 years time,



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DK will be able to provide a national estimate of bycatch of harbour porpoise. DK pursues a thematic approach, whereby known threats are removed first – e.g. mobile bottom trawling on reef structures.

The meeting was closed at 4 pm.

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**Annex 1 List of participants: 2 meeting in the ad hoc working group**

**Denmark**

Marie-Louise Krawack (The Danish Agency for Water and Nature Management)

Elsbeth Teichert and Anja Boye (Danish AgriFish Agency)

Josefine Egekvist (DTU Aqua)

**Sweden**

Lena Tingström (Swedish Agency for Marine and Water management)

**Germany**

Bruno Hoffstadt (Federal Ministry of Food and Agriculture)

Christian von Dorrien (Von Thünen Institute)

**Poland**

Marta Szulfer and Pawel Tazarski (Ministry of Maritime Economy and Inland Navigation, Fisheries Department)

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**Belgium**

Jesse Verhalle, Belgian

### **Minutes of the 3. meeting in the ad-hoc working group on the Danish proposals for fisheries management measures in 7 Natura 2000 sites in the Kattegat and Baltic Sea**

*This was the third meeting held in the established ad-hoc working group which mainly focused on finalizing the proposal texts and agreeing on the fishery data as well as the wording of the draft Joint Recommendations.*

**The meeting took place at the Danish AgriFish Agency in Copenhagen on 14 September 2016.**

#### **1. Welcome by the Danish AgriFish Agency and tour de table**

*Chair Anja Boye made an introduction and presentation of the agenda. Participants introduced themselves and their organization (Annex 1).*

The chair explained that the main aim of today's meeting is to reach a positive confirmation from Sweden, Germany and Poland on the two Danish proposals for fisheries management measures and associated Joint Recommendations, and commence the 6 months period.

The chair pointed out that several Member States are not present in today's meeting, however, Finland, Latvia, Lithuania and Estonia have formally communicated that they support the Danish proposal for fisheries management measures in the Baltic Sea. The Commission have communicated that they cannot participate in today's meeting. DG ENVI has forwarded some written comments from their consultants evaluation of the two proposals (attached). Under agenda item 3, the chair will present the comments received and how DK foresees these points handled.

The chair informed further, that the next STECF meeting will take place on the 25 October 2016. Deadline for submitting the joint recommendations to the Commission is 6 October 2016. This timeframe will be difficult to comply with, however, if possible it should be pursued, since the next STECF meeting is scheduled to take place in April 2017.

However, the Danish AgriFish Agency intends to forward the proposals and Joint Recommendations as soon as possible. The Commission will then have a 3 months deadline to treat the documents. It was agreed, that if the joint recommendation are submitted later than 6 October 2016 a pragmatic solution must be found together with the Commission since the STECF consultation is not an explicit part of the CFP Basic regulation.

#### **2. Adoption of the agenda and the minutes of the 2. meeting in the ad hoc working group**

The circulated agenda was adopted. The minutes of the 2. meeting in the ad hoc working group held on the 25 August 2016 had been circulated for commenting prior to today's meeting. There were no comments to the minutes. The minutes were adopted without further changes, and will be incorporated in Annex G.

The chair informed that until a final agreement in the ad hoc working group has been reached, the minutes from meetings in the ad hoc working group will be kept in a separate word document.

The chair informed that the Commission has forwarded some further comments, drafted by DG ENV consultants, which is yet to be assessed. Since these comments first were received on the 13 September, the comments have not been forwarded to the meeting participants. A short excerpt of the main points was distributed at the meeting. The whole document will be circulated with the minutes.

Since the Commission is not participating in the meeting, the Danish AgriFish Agency has requested for a bilateral meeting for a further elaboration of the received comments.

#### **3. Final scrutiny of the proposal text**

Sweden has forwarded comments prior to the meeting. All comments have been taken onboard except for the comment in section 4. Sweden has subsequently communicated that there is no need for further changes to this section on proportionality.

The Commission has forwarded a range of questions, which need to be discussed and addressed in the proposal text if possible.

The chair shortly went through the comments forwarded by DG ENVI:

- Question fishery data from smaller vessels

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- How DK will reach the conservations goals with the proposed measures
- Other sectors and how this proposal in collaboration with other initiatives will ensure favorable conservation status is reached
- Impact on H1170 from static gear
- Salinity and its role in relation to impact

The chair informed, that the Commission has approved an identical set of management measures for 10 Danish sites, which has been adopted in a delegated act. However, DK will propose some additional wording in several sections and circulate it for approval. The majority of the raised questions have already been addressed in the fourth draft proposals.

General discussion on involvement of the Commission and the role of consultants in these evaluations processes. It was agreed that it was preferred that the Commission in case of comments and/ or questions took active part in the meetings in the ad hoc working groups.

### **3.1. Baltic Sea proposal**

Minor editorial changes were made during the meeting.

The Swedish representative mentioned that there is a risk for pelagic gear (trawls) to contact the sea bottom, at low water depths. The Danish AgriFish Agency does not foresee this as an actual threat, since the average water depth in the sites is estimated to approximately 40 meters.

The German representative mentioned, that DK perhaps should include the results from the SAMBAH project, concerning the population of harbor porpoises in the Baltic region in relation to bycatch.

The chair mentioned, that the SAMABAH project solely looked at population estimates. Bycatch was not assessed nor monitored. It was agreed to include a foot note on the outcome of the SAMBAH project in section 2.3.1. The Danish AgriFish Agency, however, intends to develop a national strategy for the protection of harbor porpoises in Danish water by 2020. Baltic Sea fishermen have been consulted through the advisory council for the Baltic Sea.

### **3.2. Kattegat proposal**

Minor editorial changes were made during the meeting. All the comments forwarded by Sweden were taken onboard except for the proposed changes for section 4. Sweden has subsequently communicated that there is no need for further changes to this section on proportionality.

Germany requested for a discussion on the linkage between the proposal and Annex II of the Marine Strategy Framework Directive and size of buffer zones. DTU Aqua and ICES have given scientific advice on buffer zones. The size of buffer zones used in the present proposal is larger than the ICES advice. The Danish approach is that MSFD is supplementary to Natura 2000 and in the Kattegat area is targeting the deep muddy sea bottom.

### **3.3. Confirmation of sufficient information and launching of 6 months deadline**

It was agreed, that there was sufficient information to commence the 6 months period. Hence the proposal should be forwarded in the form of a joint recommendation to the Commission by March 2017.

It was agreed, that the final editorial corrections will be made, including minor changes related to the comments forwarded DG ENV's. The final versions of both proposals will be circulated to the MS as soon as possible and a deadline of one week will be given for final approval of new text.

## **4. Discussion of draft Joint Recommendations – discussion of content**

Draft Joint Recommendations had been forwarded the meeting participants prior the meeting. Sweden has sent remarks to the Joint Recommendations. To streamline with the delegated act recently published, there is a need to change "Fisheries Management Measures" changed to "Fisheries Conservation Measures". This change was accepted.

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The chair informed, that there was a minor difference between the layout of the two documents. In the Joint Recommendation covering the sites in the Baltic Sea, banned gear types are solely given in the table where a different layout is used for the Kattegat Joint Recommendation. Here banned gear types are listed in both text and in table. This difference is merely to point out, that there are different gear types to be banned in different part of the sites in the Kattegat and not in the sites in the Baltic Sea, where only mobile bottom contacting gear types are banned.

Germany had no concerns with this difference.

**5. Discussion of formal procedures in each Member State**

The chair informed that DK need to be informed of the timeline for formal approval in the different MS.

The chair informed that the Danish AgriFish will launch the formal approval process very soon – a process which involves Parliament.

The Polish representatives informed that the formal procedure involves an approval form the Minister for Fisheries. This process is estimated to take 2 weeks.

The German representative informed that the proposals have to be formally approved by the Fisheries and Nature Directors- a process estimated to take 2 weeks.

The Swedish representative could not currently provide an exact time frame for the Swedish process.

**6. Discussion of future process and meeting dates**

It was discussed whether there is a need for a fourth meeting in the ad hoc working group. It was agreed, that the 27 October 2016, will be kept open as a tentative date, in case the need for further elaboration of the proposals/joint recommendations arises.

The chair informed of the two formal processes, which the proposals will go through. Once there is a formal agreement among the involved MS, the Danish AgriFish Agency will forward the Baltic Sea proposal and joint recommendation to the BALTFISH Presidency.

The Kattegat proposal will be forwarded to the Commission by DK – however, it needs to be accompanied by signed letters from Sweden and Germany at Fishery Director level.

**7. AOB.**

The meeting was closed at 3.15 pm.

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**Annex 1 List of participants: 3. meeting in the ad hoc working group**

**Denmark**

Anja Boye (chair), Elsbeth Teichert and Pernille Jensen (ref.) (The Danish AgriFish Agency)

**Sweden**

Mattias Sköld (Swedish University of Agricultural Sciences)

**Germany**

Bruno Hoffstadt (Federal Ministry of Food and Agriculture)

**Poland**

Marta Szulfer and Katarzyna Kaminska (Ministry of Maritime Economy and Inland Navigation, Fisheries Department)

## **B) Outcome of consultations with the European Commission**

The European Commission has not actively taken part in meetings in the ad hoc working group. Correspondence has therefore been through emails and one bilateral meeting.

*A bilateral meeting with the European Commission was held on 5 July 2016. DG ENVI and DG MARE participated in this meeting.*

DK explained the rationale and proposed measures, how the measures will be controlled and the expected outcome of proposed measures. DG MARE requested for better linkages between the proposed measures and regulation of other sectors, since it is important to highlight that not only fishery will be regulated. Comments from DG ENVI (also outlined in the written comments forwarded on 8 July 2016) were centered around the following topics:

- Text on site specific conservation objectives and when these will be developed
- Risk assessment for habitat H 1170 – stone reef
- Explanation on how the proposed measures will contribute to the overall objective of favorable conservation status for targeted habitats – specifically the expected effects
- Relation between proposed measures and regulation of other sectors in the task of achieving favorable conservation status
- Activity for smaller vessels

DK presented the outcome of this consultation to the ad hoc working group in the August meeting. Several text amendments had been made to take the comments from the Commission on-board, see minutes from this ad hoc working group meeting for further information.

Text has been added to section 3, section 4 and section 6. In section 6, a specific section on expected effects has been developed, section 6.4.3.

*DG ENVI on 13 September 2016 forwarded further comments, which were centered around the following topics:*

- explanation on how the proposed measures will contribute to the improvement of conservation status of the targeted habitats
- relationship between proposed measures and other non-fishery related pressures on the protected features
- impact on H1170 from fishery and rationale for not proposing fisheries management measures
- Activity for smaller vessels <12 m
- Update links to the management plans

DK presented the outcome of this consultation to the ad hoc working group in the September meeting. Several text amendments had been made to take the comments from the Commission on-board, see minutes from this ad hoc working group meeting for further information. Further text has been added to section 3, section 4 and section 6.

## **Annex H - Summary of outcome of consultation with the *Natura 2000 Dialogue Forum* and Advisory Councils for the North Sea and Baltic Sea, respectively**

### **Minutes from meeting with national stakeholders (*Natura 2000 Dialogue Forum*) and Advisory Councils for the Baltic and North Sea - 23 May 2016**

The Danish AgriFish Agency had invited stakeholders to a consultation of the two Danish proposals for fisheries management measures in 7 Natura 2000 sites currently being discussed with Member States with direct management interests. The two proposals were forwarded prior to the meeting (8 April 2016) for commenting. Deadline for forwarding comments was 31 May 2016.

List of attendees is given in annex 1. Prior to the consultation meeting, OCEANA had forwarded written comments -given in annex 2. The Danish Fishermen Association PO, has given their comments in the process of designing the buffer zones and coordinates.

The Danish AgriFish presented the proposed fisheries management measures for the 4 N2000 sites in the Kattegat; "Store Middelgrund", "Schultz, Hastens Grund samt Briseis Flak", "Strandenge på Læsø og havet syd herfor" and "Havet omkring Nordre Rønner" – and for the 3 N2000 sites in the Danish part of the western Baltic Sea; "Centrale Storebælt og Vresen", "Flensborg Fjord, Bredgrund og farvandet omkring Als" and "Adler Grund og Rønne Banke".

The proposed management measures were presented and the rationale explained; a ban for mobile bottom contacting gears in areas mapped as reef structures (H1170) and in 240 meters surrounding buffer zone – and a total ban for all commercial fisheries near bubbling reefs (H1180). Analysis of fishing activity based on the forwarded fishery data from Member States shows that fisheries – Danish vessels or other Member States' vessels, does not take place in the areas mapped as reef structures, which will be restricted for fisheries. The extent of displacement is therefore minimal.

The Danish Nature Agency supplemented with a presentation of the designation of the sites, the formulation of management plans and actions to be taken in the sites, the mapping exercise and finally the national monitoring programme (NOVANA).

A summary of the comments received in relation to the two proposals is given below.

**The BSAC representative** reported that none of the 25 BSAC members had specific comments to the Danish proposals, but all welcomed the Danish initiative.

**The NSAC representative** took notice of the fact that if fisheries does not occur in the sites, then how will Denmark secure environmental favourable conditions in the areas by imposing fishing restrictions. The scientific rationale for this is not clear. Neither is the legal framework for this.

Further the proposed prohibited gear types should be categorized in light and heavy gear types – e.g. Scottish seines should be considered as a light gear type and not necessarily be prohibited.

**The Danish Fisheries Association PO:** agreed to the obligation of protection of reef structures and the method used with site specific regulation, although there should be given special attention to fisheries from smaller vessels, e.g. Flensborg Fjord. Further fisheries data should be given for a longer period of time instead of only 4 years, which is not sufficient. The Danish AgriFish Agency should take notice of any potentially future fisheries opportunities, e.g. fishery for sandeel in new areas.

DFPO pointed out, that although there's a lack of species/macro algae, it is not necessarily a problem caused by fishery. The high content of nutrients in the water column could also be the reason.

**The NGO's (OCEANA and WWF):** OCEANA had prior the meeting forwarded comments to the two proposals (annex 2). Both OCEANA and WWF welcomes the Danish initiative and stress the importance of adequate protection of areas the reef structures. However, the Danish approach is unambitious and instead of a site specific management which only leads to fragmented protection from fisheries. More coherent protection zones and a holistic and ecosystem based approach would provide more protection (and restoring) of the habitat and species located near it.

Further when sandbanks have been mapped in the sites, this habitat type should also be protected from fisheries and not wait on processes in other countries (e.g. Dogger Bank), Annex A lists OCEANAs comments.

After the meeting, the Danish Agrifish Agency has received comments from WWF. The forwarded comments support the written comments given by OCEANA and the comments presented at the meeting. WWF requests for the zone protecting bubbling reefs in the site 'Nordre Rønner' to be combined and for a more holistic approach to MPA management to be followed.

**Comments from the Danish AgriFish Agency and the Danish Nature Agency:** The two agencies welcomed the comments. The NSAC has several comments, which were not solely directed to the Danish proposals. Thus, it was agreed that a separate answer would be given to the more principal questions raised. Regarding rationale and scientific evidence, scientific evidence is clear in relation to reef structures and gear types. Same is not given for sandbanks. The Danish proposals should also been seen in relation to future fishing activities, whereby the proposed measures will guarantee protection. Other threats are also being addressed by other agencies, e.g. extraction of gravel and sand, construction work etc.

The proposed measures should been seen together with other initiatives as Denmark's contribution to achieving good environmental status in our waters. The Danish approach focuses on reef protection, since this habitat type is the most vulnerable habitat type in relation to fishery. Once more studies have been done on sandbanks, it will be assessed whether there is a need for further protection. Impact from fishery on sandbank is less clear, and before fisheries management measures can be proposed, more information is needed.

The agencies took notice of the request from the green NGO's to combine some of the buffer zones in the site "Strandenge på Læsø og havet syd herfor".

#### **Further process in relation to comments received regarding the Danish proposals for fisheries management measures for protection of reef structures designated under the habitats directives**

The Danish AgriFish Agency and the Danish Nature Agency has discussed the comments received and finds no need for substantial editorial changes. The proposed fisheries management measures aim at ensuring adequate protection of reef structures designated under the Habitats Directive. This initiative will contribute to a better environmental status in the Danish waters. The designated reef structures will be protected in their full extent, also if the reef structures go beyond the boundaries of the Natura 2000 site. The rationale behind this is given in section 4. There is no rationale for protecting the entire site/full closure, if reef structures are not present. Proposed measures must comply with the proportionality principle so that they do not go any further than necessary to ensure the needed protection of the mapped reef within the framework of the habitats directive. The aim of Article 6 (2,3) is to find the balance between protection of marine habitats and species and management of fishing activities. Also assessing the precautionary principles.

The Danish AgriFish Agency has been focusing on protection of reef structures since 2011, due to a urgent need for actions to be taken. With 65 Natura 2000 sites designated for reef structures, this a large task to finalize. Sandbanks will be protected when there is scientific advice on the protection needs of the habitat



type. There is an ambition of launching the work of formulating necessary fisheries management measures in 2017. The outcome of the EU funded 'Benthis project' is expected to be an important input in this work.

## **Annex 1**

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### **List of participants:**

BSAC:	Sally Clink
NSAC:	Peter Breckling
OCEANA:	Hanna Paulomaki
WWF Denmark:	Mette Blæsbjerg
Danish Fishermen Association PO: Bælternes Fiskeriforening:	Henrik Lund Allan Buch
DTU Aqua:	Thomas Kirk Sørensen
The Danish Nature Agency:	Marie-Louise Krawack
Fishery Control Unit, AgriFish Agency:	Jacob Handrup
Center for Fishery, AgriFish Agency:	Bjørn Wirlander, Anja Gadgård Boye, Elsbeth Teichert & Pernille B. Jensen

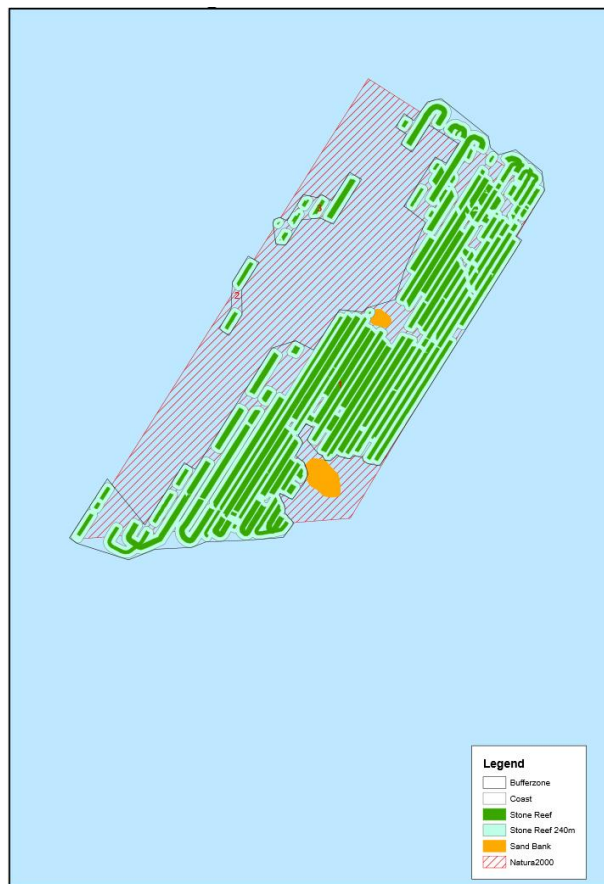
### **The following organizations/ representatives could not participate**

NSAC:	Henrike Semmeler
Danish Nature Conservation Association:	Bo Håkonsson

## Annex I – Buffer zones and coordinates

### “Adler Grund og Rønne Banke”

**Habitat No. H261, Natura 2000 site No. 252 (EU Code: DK00VA261)**



Map showing positions of buffer zones around stone reefs (H1170)

1	54 56.959' N	14 34.793' E
1	54 56.816' N	14 35.056' E
1	54 50.283' N	14 26.605' E
1	54 50.368' N	14 25.991' E
1	54 50.479' N	14 25.724' E
1	54 50.586' N	14 25.711' E
1	54 50.655' N	14 25.222' E
1	54 50.573' N	14 25.081' E
1	54 50.599' N	14 24.788' E
1	54 50.704' N	14 24.373' E
1	54 50.553' N	14 24.025' E
1	54 50.576' N	14 23.71' E
1	54 50.735' N	14 23.591' E
1	54 50.778' N	14 23.43' E
1	54 50.898' N	14 23.263' E
1	54 51.248' N	14 22.848' E
1	54 51.607' N	14 23.248' E
1	54 51.733' N	14 22.857' E
1	54 51.174' N	14 22.625' E
1	54 50.784' N	14 22.19' E
1	54 50.561' N	14 22.625' E
1	54 51.407' N	14 22.412' E
1	54 54.127' N	14 21.359' E
1	54 48.802' N	14 9.888' E
1	54 50.52' N	14 12.125' E
1	54 49.028' N	14 13.925' E
1	54 50.832' N	14 16.266' E
1	54 50.608' N	14 16.808' E
1	54 59.354' N	14 31.369' E
1	54 54.3' N	14 22.661' E
1	54 53.976' N	14 23.554' E
1	54 55.143' N	14 25.105' E
1	54 55.013' N	14 26.378' E
1	54 55.131' N	14 26.576' E
1	54 55.316' N	14 28.098' E
1	54 48.623' N	14 10.252' E
1	54 56.264' N	14 28.778' E
1	54 57.603' N	14 30.03' E
1	54 58.146' N	14 28.954' E
1	54 59.569' N	14 30.82' E
1	54 59.918' N	14 32.115' E
1	55 0.553' N	14 30.644' E
1	54 59.771' N	14 29.605' E
1	55 0.053' N	14 29.042' E
1	55 0.334' N	14 29.386' E

Coordinates of the buffer zone which forms the protection of **stone reefs**:

Reef no.	Latitude	Longitude
1	54 50.2' N	14 22.77' E
1	54 49.91' N	14 22.5' E
1	54 49.461' N	14 21.831' E
1	54 49.673' N	14 21.203' E
1	54 49.637' N	14 21.172' E
1	54 49.229' N	14 21.434' E
1	54 49.075' N	14 21.385' E
1	54 48.736' N	14 21.821' E
1	54 48.324' N	14 21.197' E
1	54 48.321' N	14 19.268' E
1	54 48.368' N	14 17.09' E
1	54 48.233' N	14 16.306' E
1	54 48.262' N	14 14.382' E
1	54 47.997' N	14 12.93' E
1	54 48.802' N	14 9.888' E
1	54 58.281' N	14 36.49' E

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1	55 0.578' N	14 28.837' E	2	54 56.989' N	14 20.483' E
1	55 0.968' N	14 29.355' E	3	54 59.065' N	14 26.817' E
1	55 0.734' N	14 29.839' E	3	54 57.764' N	14 25.132' E
1	55 1.266' N	14 30.639' E	3	54 57.984' N	14 24.458' E
1	55 1.34' N	14 31.374' E	3	54 57.971' N	14 23.479' E
1	55 0.065' N	14 33.739' E	3	54 57.233' N	14 22.515' E
1	54 59.72' N	14 33.79' E	3	54 57.285' N	14 22.001' E
1	54 59.485' N	14 34.193' E	3	54 57.922' N	14 21.922' E
1	54 59.594' N	14 35.129' E	3	54 58.045' N	14 21.993' E
1	54 58.875' N	14 36.417' E	3	54 58.098' N	14 22.314' E
2	54 56.989' N	14 20.483' E	3	54 57.983' N	14 22.684' E
2	54 56.775' N	14 21.031' E	3	54 58.736' N	14 23.659' E
2	54 55.97' N	14 20.005' E	3	54 58.606' N	14 24.422' E
2	54 55.208' N	14 19.918' E	3	54 58.706' N	14 24.611' E
2	54 54.614' N	14 19.139' E	3	54 58.485' N	14 25.145' E
2	54 54.842' N	14 18.629' E	3	54 59.305' N	14 26.211' E
2	54 55.423' N	14 19.358' E	3	54 59.065' N	14 26.817' E
2	54 56.232' N	14 19.534' E			

## “Centrale Storebælt og Vresen”

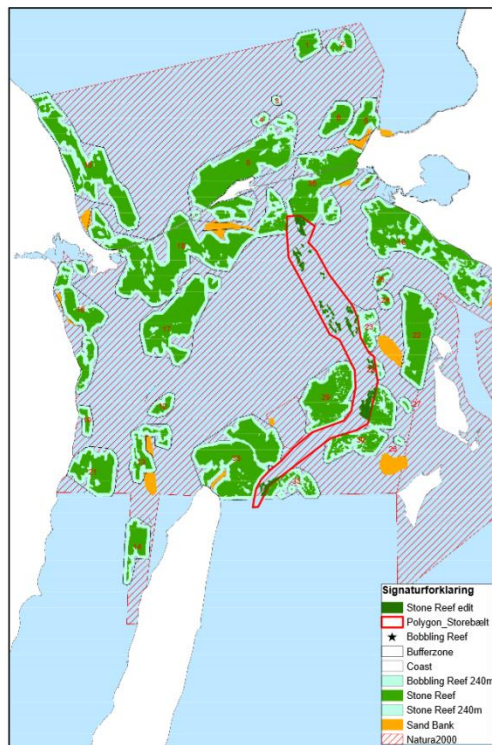
**Habitat No. H100, Natura 2000 site No. 116 (EU Code: DK008X190)**

Map on right showing positions of buffer zones around stone reefs (H1170). Red stripe indicate corridor in which fisheries activities will be allowed, see further in section 5.1.2.

Coordinates of the buffer zone which form the protection of the stone reefs:

Reef no. Latitude Longitude

1	55 25.438' N	11 1.989' E
1	55 25.601' N	11 3.28' E
1	55 24.903' N	11 3.559' E
1	55 24.649' N	11 2.88' E
1	55 24.439' N	11 2.217' E
1	55 25.119' N	11 1.706' E
1	55 25.438' N	11 1.989' E
1	55 24.619' N	11 1.854' E
2	55 25.419' N	11 5.434' E
2	55 25.184' N	11 5.534' E
2	55 24.902' N	11 5.54' E
2	55 24.783' N	11 5.26' E
2	55 24.819' N	11 5.086' E
2	55 24.67' N	11 4.593' E
2	55 24.659' N	11 4.042' E
2	55 24.939' N	11 3.703' E
2	55 25.256' N	11 4.045' E
2	55 25.252' N	11 4.428' E
2	55 25.625' N	11 4.901' E
2	55 25.625' N	11 4.901' E
3	55 23.089' N	11 0.437' E
3	55 23.314' N	11 0.64' E
3	55 23.276' N	11 1.024' E
3	55 22.98' N	11 1.046' E
3	55 22.965' N	11 0.658' E
3	55 23.257' N	11 0.451' E
3	55 23.314' N	11 0.64' E
4	55 22.624' N	11 0.355' E
4	55 22.359' N	11 0.259' E
4	55 22.176' N	10 59.661' E
4	55 22.279' N	10 59.321' E
4	55 22.479' N	10 59.184' E
4	55 22.78' N	10 59.978' E
4	55 22.479' N	10 59.184' E
5	55 22.187' N	11 6.828' E
5	55 23.241' N	11 5.892' E
5	55 23.232' N	11 6.815' E
5	55 22.211' N	11 6.834' E
5	55 22.792' N	11 6.766' E
5	55 22.499' N	11 7.033' E



5	55 22.154' N	11 6.932' E
5	55 22.139' N	11 6.882' E
5	55 22.162' N	11 6.84' E
5	55 22.232' N	11 6.814' E
5	55 22.227' N	11 6.789' E
5	55 22.195' N	11 6.762' E
5	55 22.107' N	11 6.651' E
5	55 22.049' N	11 6.583' E
5	55 21.901' N	11 6.091' E
5	55 21.759' N	11 5.742' E
5	55 21.822' N	11 4.958' E
5	55 21.98' N	11 4.822' E
5	55 22.383' N	11 5.326' E
5	55 22.671' N	11 5.463' E
5	55 22.87' N	11 5.831' E
5	55 23.241' N	11 5.892' E
6	55 23.116' N	11 4.313' E
6	55 23.116' N	11 5.023' E
6	55 22.97' N	11 5.376' E
6	55 22.783' N	11 5.465' E
6	55 22.4' N	11 5.251' E
6	55 22.211' N	11 4.987' E
6	55 22.085' N	11 4.631' E
6	55 21.815' N	11 3.811' E
6	55 21.865' N	11 3.393' E
6	55 21.955' N	11 3.286' E
6	55 22.125' N	11 3.286' E
6	55 22.426' N	11 3.522' E

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6	55 22.771' N	11 3.846' E	8	55 19.669' N	10 57.572' E
6	55 23.116' N	11 4.313' E	8	55 19.673' N	10 57.297' E
6	55 22.56' N	11 5.372' E	8	55 19.475' N	10 56.801' E
7	55 20.632' N	11 6.389' E	8	55 19.53' N	10 56.681' E
7	55 20.646' N	11 6.342' E	8	55 19.683' N	10 57.012' E
7	55 20.638' N	11 6.342' E	8	55 19.784' N	10 57.181' E
7	55 20.616' N	11 6.469' E	8	55 19.882' N	10 57.508' E
7	55 20.514' N	11 6.85' E	8	55 20.129' N	10 57.805' E
7	55 20.61' N	11 6.83' E	8	55 20.382' N	10 58.341' E
7	55 20.627' N	11 6.794' E	10	55 19.539' N	11 7.846' E
7	55 20.613' N	11 6.506' E	10	55 19.464' N	11 8.143' E
7	55 20.682' N	11 6.403' E	10	55 19.348' N	11 8.54' E
7	55 20.525' N	11 6.027' E	10	55 19.237' N	11 8.9' E
7	55 20.225' N	11 5.564' E	10	55 19.249' N	11 8.982' E
7	55 20.103' N	11 5.659' E	10	55 19.134' N	11 9.283' E
7	55 20.028' N	11 5.906' E	10	55 19.063' N	11 9.396' E
7	55 20.223' N	11 6.516' E	10	55 18.886' N	11 9.591' E
7	55 20.682' N	11 6.403' E	10	55 18.843' N	11 9.67' E
7	55 20.68' N	11 6.641' E	10	55 18.724' N	11 9.841' E
7	55 20.651' N	11 6.771' E	10	55 17.958' N	11 8.211' E
7	55 20.633' N	11 6.767' E	10	55 17.881' N	11 8.862' E
7	55 20.62' N	11 6.51' E	10	55 17.714' N	11 9.281' E
7	55 20.336' N	11 5.695' E	10	55 17.648' N	11 9.861' E
7	55 20.635' N	11 6.49' E	10	55 17.477' N	11 10.315' E
7	55 20.639' N	11 6.446' E	10	55 17.239' N	11 10.827' E
7	55 20.63' N	11 6.436' E	10	55 17.114' N	11 11.133' E
7	55 20.647' N	11 6.362' E	10	55 16.854' N	11 11.197' E
8	55 21.056' N	10 56.562' E	10	55 16.766' N	11 11.324' E
8	55 21.92' N	10 59.68' E	10	55 16.53' N	11 11.452' E
8	55 22.028' N	10 59.909' E	10	55 16.095' N	11 12.308' E
8	55 22.219' N	11 0.087' E	10	55 16.08' N	11 12.453' E
8	55 20.379' N	10 58.507' E	10	55 16.169' N	11 12.654' E
8	55 20.421' N	10 58.837' E	10	55 16.161' N	11 12.723' E
8	55 20.49' N	10 59.106' E	10	55 16.033' N	11 12.904' E
8	55 20.537' N	10 59.268' E	10	55 16.007' N	11 13.144' E
8	55 20.506' N	10 59.374' E	10	55 16.543' N	11 13.644' E
8	55 20.444' N	10 59.385' E	10	55 16.902' N	11 13.73' E
8	55 20.72' N	11 0.843' E	10	55 17.096' N	11 13.51' E
8	55 20.951' N	11 1.385' E	10	55 17.076' N	11 13.064' E
8	55 21.374' N	11 1.777' E	10	55 17.545' N	11 13.235' E
8	55 22.182' N	11 2.048' E	10	55 17.587' N	11 13.017' E
8	55 22.637' N	11 1.948' E	10	55 17.673' N	11 12.6' E
8	55 22.807' N	11 1.442' E	10	55 17.845' N	11 12.322' E
8	55 22.535' N	11 0.65' E	10	55 17.929' N	11 12.155' E
8	55 22.219' N	11 0.087' E	10	55 18.036' N	11 11.762' E
8	55 19.712' N	10 59.605' E	10	55 18.08' N	11 11.607' E
8	55 20.707' N	10 55.772' E	10	55 18.129' N	11 11.477' E
8	55 20.044' N	10 55.351' E	10	55 18.265' N	11 11.005' E
8	55 19.074' N	10 55.587' E	10	55 18.326' N	11 10.851' E
8	55 19.01' N	10 55.724' E	10	55 18.315' N	11 10.591' E
8	55 18.926' N	10 57.284' E	10	55 18.361' N	11 10.416' E
8	55 18.978' N	10 59.081' E	10	55 18.527' N	11 10.156' E
8	55 20.044' N	10 59.317' E	10	55 18.616' N	11 10.002' E
8	55 19.963' N	10 59.031' E	10	55 17.988' N	11 11.987' E
8	55 19.878' N	10 58.604' E	10	55 19.539' N	11 7.846' E
8	55 19.765' N	10 58.204' E	10	55 19.847' N	11 6.941' E

*DRAFT - Proposal for fisheries management measures in Danish Natura 2000 sites  
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10	55 19.653' N	11 5.987' E	14	55 8.542' N	10 51.629' E
10	55 19.486' N	11 5.827' E	14	55 8.762' N	10 51.987' E
10	55 19.338' N	11 5.889' E	14	55 8.754' N	10 52.343' E
10	55 19.032' N	11 6.271' E	14	55 8.442' N	10 53.135' E
10	55 18.7' N	11 6.298' E	15	55 23.281' N	10 45.868' E
10	55 18.633' N	11 6.171' E	15	55 23.438' N	10 46.899' E
10	55 18.155' N	11 6.263' E	15	55 22.436' N	10 48.264' E
10	55 18.056' N	11 6.409' E	15	55 21.686' N	10 48.96' E
10	55 17.965' N	11 6.661' E	15	55 21.508' N	10 50.307' E
10	55 17.843' N	11 6.743' E	15	55 20.441' N	10 51.066' E
10	55 17.755' N	11 6.86' E	15	55 20.104' N	10 51.73' E
10	55 17.682' N	11 7.066' E	15	55 19.095' N	10 52.473' E
10	55 17.682' N	11 7.356' E	15	55 18.718' N	10 52.328' E
10	55 17.736' N	11 7.553' E	15	55 18.642' N	10 51.7' E
10	55 17.835' N	11 7.591' E	15	55 18.91' N	10 51.124' E
10	55 17.937' N	11 7.587' E	15	55 19.513' N	10 50.867' E
12	55 13.037' N	10 54.564' E	15	55 19.65' N	10 49.615' E
12	55 13.099' N	10 54.201' E	15	55 19.861' N	10 48.606' E
12	55 12.975' N	10 53.846' E	15	55 20.471' N	10 48.321' E
12	55 12.738' N	10 53.308' E	15	55 21.046' N	10 47.795' E
12	55 12.528' N	10 54.474' E	15	55 21.568' N	10 47.536' E
12	55 12.431' N	10 52.92' E	15	55 22.25' N	10 46.695' E
12	55 12.291' N	10 52.964' E	15	55 22.534' N	10 46.353' E
12	55 12.204' N	10 53.563' E	15	55 22.816' N	10 46.344' E
12	55 13.099' N	10 54.201' E	15	55 22.948' N	10 46.253' E
12	55 12.27' N	10 54.034' E	15	55 23.281' N	10 45.868' E
12	55 12.934' N	10 54.608' E	16	55 17.047' N	10 49.155' E
13	55 12.001' N	10 52.671' E	16	55 16.79' N	10 48.307' E
13	55 11.988' N	10 54.097' E	16	55 15.961' N	10 50.277' E
13	55 11.946' N	10 54.239' E	16	55 15.729' N	10 50.6' E
13	55 11.675' N	10 54.439' E	16	55 15.396' N	10 50.281' E
13	55 11.172' N	10 54.336' E	16	55 15.076' N	10 49.59' E
13	55 11.088' N	10 54.182' E	16	55 14.69' N	10 49.923' E
13	55 11.241' N	10 53.372' E	16	55 14.26' N	10 49.912' E
13	55 11.541' N	10 53.384' E	16	55 13.484' N	10 49.512' E
13	55 11.584' N	10 52.825' E	16	55 13.171' N	10 49.238' E
13	55 11.107' N	10 52.819' E	16	55 13.008' N	10 48.759' E
13	55 10.944' N	10 53.173' E	16	55 13.052' N	10 48.589' E
13	55 10.431' N	10 53.477' E	16	55 13.187' N	10 48.565' E
13	55 10.324' N	10 53.338' E	16	55 13.412' N	10 48.691' E
13	55 10.304' N	10 52.808' E	16	55 13.514' N	10 48.719' E
13	55 10.069' N	10 52.688' E	16	55 13.598' N	10 48.78' E
13	55 9.994' N	10 52.053' E	16	55 13.696' N	10 48.876' E
13	55 10.484' N	10 51.781' E	16	55 13.756' N	10 48.89' E
13	55 10.689' N	10 51.872' E	16	55 13.844' N	10 48.866' E
13	55 11.711' N	10 51.901' E	16	55 13.876' N	10 48.941' E
13	55 12.001' N	10 52.671' E	16	55 14.054' N	10 48.763' E
13	55 9.919' N	10 52.511' E	16	55 14.243' N	10 48.657' E
14	55 8.442' N	10 53.135' E	16	55 14.308' N	10 48.555' E
14	55 7.312' N	10 53.026' E	16	55 14.365' N	10 48.506' E
14	55 7.339' N	10 52.24' E	16	55 14.61' N	10 48.945' E
14	55 6.665' N	10 52.011' E	16	55 15.371' N	10 49.001' E
14	55 6.458' N	10 51.873' E	16	55 15.408' N	10 48.532' E
14	55 6.425' N	10 51.644' E	16	55 15.772' N	10 47.882' E
14	55 6.49' N	10 51.431' E	16	55 16.2' N	10 47.656' E
14	55 7.913' N	10 51.552' E	16	55 16.614' N	10 47.216' E

*DRAFT - Proposal for fisheries management measures in Danish Natura 2000 sites  
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16	55 16.75' N	10 47.263' E	18	55 18.209' N	10 49.881' E
16	55 17.035' N	10 47.428' E	18	55 18.337' N	10 49.638' E
16	55 17.137' N	10 47.465' E	18	55 18.446' N	10 49.432' E
16	55 17.217' N	10 47.533' E	18	55 18.71' N	10 49.284' E
16	55 17.277' N	10 47.53' E	18	55 19.429' N	10 49.555' E
16	55 17.317' N	10 47.474' E	18	55 19.456' N	10 49.88' E
16	55 17.563' N	10 47.673' E	18	55 18.953' N	10 50.561' E
16	55 17.654' N	10 48.554' E	18	55 18.626' N	10 50.886' E
16	55 17.615' N	10 49.147' E	18	55 18.339' N	10 53.146' E
16	55 17.27' N	10 49.375' E	18	55 18.587' N	10 53.85' E
16	55 17.047' N	10 49.155' E	18	55 19.2' N	10 54.345' E
17	55 15.901' N	10 53.294' E	18	55 19.368' N	10 54.926' E
17	55 15.897' N	10 53.739' E	18	55 19.129' N	10 55.437' E
17	55 16.516' N	10 54.748' E	18	55 18.633' N	10 55.848' E
17	55 17.165' N	10 55.712' E	18	55 18.749' N	10 58.729' E
17	55 17.195' N	10 56.657' E	18	55 18.67' N	10 59.198' E
17	55 17.043' N	10 57.42' E	18	55 19.262' N	11 0.072' E
17	55 16.717' N	10 57.427' E	18	55 20.109' N	11 0.134' E
17	55 16.223' N	10 56.627' E	18	55 20.163' N	11 0.469' E
17	55 15.216' N	10 55.738' E	18	55 19.793' N	11 1.058' E
17	55 14.488' N	10 55.598' E	18	55 19.185' N	11 1.404' E
17	55 14.255' N	10 55.435' E	18	55 19.153' N	11 1.41' E
17	55 13.955' N	10 54.872' E	19	55 12.521' N	10 48.713' E
17	55 14.014' N	10 54.435' E	19	55 12.66' N	10 48.627' E
17	55 14.277' N	10 54.294' E	19	55 12.612' N	10 49.461' E
17	55 14.315' N	10 53.183' E	19	55 12.028' N	10 49.661' E
17	55 14.404' N	10 52.716' E	19	55 11.588' N	10 49.552' E
17	55 15.081' N	10 52.435' E	19	55 11.513' N	10 49.361' E
17	55 15.504' N	10 52.472' E	19	55 11.598' N	10 49.005' E
17	55 15.901' N	10 53.294' E	19	55 11.744' N	10 48.931' E
18	55 19.153' N	11 1.41' E	19	55 12.172' N	10 48.956' E
18	55 19.153' N	11 1.405' E	19	55 12.25' N	10 48.747' E
18	55 18.706' N	11 1.361' E	19	55 12.322' N	10 48.752' E
18	55 18.556' N	11 1.38' E	19	55 12.398' N	10 48.755' E
18	55 18.54' N	11 1.382' E	19	55 12.464' N	10 48.707' E
18	55 18.407' N	10 59.519' E	19	55 12.509' N	10 48.678' E
18	55 18.083' N	10 58.811' E	19	55 12.521' N	10 48.713' E
18	55 17.231' N	10 57.913' E	21	55 11.213' N	10 49.51' E
18	55 17.31' N	10 56.894' E	21	55 11.138' N	10 50.719' E
18	55 17.792' N	10 55.498' E	21	55 10.916' N	10 51.079' E
18	55 17.345' N	10 55.539' E	21	55 10.626' N	10 51.187' E
18	55 17.204' N	10 55.094' E	21	55 9.675' N	10 50.936' E
18	55 16.45' N	10 54.649' E	21	55 9.479' N	10 50.754' E
18	55 16.272' N	10 54.307' E	21	55 9.476' N	10 49.829' E
18	55 16.034' N	10 53.54' E	21	55 10.234' N	10 48.014' E
18	55 16.043' N	10 53.107' E	21	55 10.256' N	10 48.051' E
18	55 16.312' N	10 52.573' E	21	55 11.213' N	10 49.51' E
18	55 16.321' N	10 51.505' E	21	55 11.177' N	10 49.151' E
18	55 16.48' N	10 50.971' E	21	55 10.847' N	10 48.427' E
18	55 16.719' N	10 50.963' E	21	55 10.816' N	10 48.379' E
18	55 17.598' N	10 51.706' E	21	55 10.719' N	10 48.362' E
18	55 17.712' N	10 51.637' E	21	55 10.669' N	10 48.285' E
18	55 17.756' N	10 51.339' E	21	55 10.475' N	10 48.162' E
18	55 18.016' N	10 51.184' E	21	55 10.339' N	10 48.111' E
18	55 17.996' N	10 50.625' E	22	55 14.799' N	11 10.2' E
18	55 18.057' N	10 50.283' E	22	55 15.844' N	11 10.527' E



*DRAFT - Proposal for fisheries management measures in Danish Natura 2000 sites  
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22	55 15.044' N	11 10.252' E	27	55 12.818' N	11 8.16' E
22	55 16.2' N	11 8.367' E	27	55 12.907' N	11 8.258' E
22	55 16.768' N	11 8.485' E	27	55 12.918' N	11 8.519' E
22	55 15.204' N	11 10.346' E	27	55 12.45' N	11 8.991' E
22	55 14.917' N	11 10.106' E	27	55 12.371' N	11 8.858' E
22	55 14.446' N	11 8.476' E	27	55 12.351' N	11 8.707' E
22	55 16.484' N	11 8.142' E	27	55 12.388' N	11 8.532' E
22	55 15.684' N	11 8.295' E	27	55 12.523' N	11 8.438' E
22	55 13.227' N	11 9.632' E	27	55 12.707' N	11 8.117' E
22	55 13.149' N	11 9.334' E	27	55 12.74' N	11 8.871' E
22	55 13.702' N	11 8.196' E	28	55 13.515' N	11 6.869' E
22	55 16.768' N	11 8.485' E	28	55 13.519' N	11 6.868' E
22	55 16.551' N	11 9.587' E	28	55 14.309' N	11 6.652' E
23	55 14.471' N	11 6.497' E	28	55 14.311' N	11 6.651' E
23	55 15.696' N	11 6.903' E	28	55 14.276' N	11 6.793' E
23	55 15.987' N	11 6.678' E	28	55 14.06' N	11 7.176' E
23	55 15.927' N	11 6.109' E	28	55 13.781' N	11 7.32' E
23	55 15.683' N	11 5.663' E	28	55 13.623' N	11 7.281' E
23	55 14.974' N	11 5.842' E	28	55 13.52' N	11 7.074' E
23	55 14.502' N	11 6.306' E	28	55 13.515' N	11 6.869' E
23	55 14.49' N	11 6.317' E	29	55 11.712' N	11 2.469' E
23	55 14.49' N	11 6.317' E	29	55 11.707' N	11 2.916' E
23	55 15.907' N	11 5.482' E	29	55 12.211' N	11 2.56' E
23	55 15.162' N	11 7.045' E	29	55 12.756' N	11 2.064' E
23	55 15.36' N	11 6.988' E	29	55 13.506' N	11 2.685' E
23	55 15.052' N	11 6.967' E	29	55 14.132' N	11 4.408' E
23	55 15.008' N	11 6.705' E	29	55 14.132' N	11 4.408' E
23	55 14.73' N	11 6.849' E	29	55 14.174' N	11 5.053' E
24	55 16.004' N	11 7.717' E	29	55 14.119' N	11 5.172' E
24	55 15.922' N	11 7.401' E	29	55 13.845' N	11 5.486' E
24	55 15.963' N	11 7.048' E	29	55 13.238' N	11 5.52' E
24	55 16.19' N	11 6.895' E	29	55 12.863' N	11 5.161' E
24	55 16.578' N	11 6.822' E	29	55 12.681' N	11 5.349' E
24	55 16.601' N	11 7.41' E	29	55 12.439' N	11 5.275' E
24	55 16.578' N	11 6.822' E	29	55 12.283' N	11 4.904' E
24	55 16.422' N	11 7.753' E	29	55 12.123' N	11 4.836' E
24	55 16.19' N	11 7.898' E	29	55 12.079' N	11 4.703' E
25	55 17.387' N	11 7.5' E	29	55 11.665' N	11 2.827' E
25	55 17.225' N	11 6.722' E	29	55 11.634' N	11 2.708' E
25	55 16.608' N	11 6.803' E	30	55 10.661' N	11 3.627' E
25	55 17.108' N	11 7.79' E	30	55 11.822' N	11 6.151' E
25	55 17.225' N	11 6.722' E	30	55 11.741' N	11 5.371' E
25	55 17.232' N	11 7.807' E	30	55 11.501' N	11 4.037' E
25	55 16.67' N	11 7.181' E	30	55 11.374' N	11 3.746' E
25	55 16.779' N	11 6.532' E	30	55 10.86' N	11 3.558' E
26	55 11.208' N	11 8.312' E	30	55 12.075' N	11 6.32' E
26	55 11.336' N	11 8.546' E	30	55 10.628' N	11 3.878' E
26	55 11.466' N	11 8.478' E	30	55 11.079' N	11 5.423' E
26	55 11.584' N	11 8.192' E	30	55 10.893' N	11 5.851' E
26	55 11.594' N	11 8.074' E	30	55 10.889' N	11 6.753' E
26	55 11.545' N	11 7.839' E	30	55 11.513' N	11 7.505' E
26	55 11.336' N	11 7.839' E	30	55 11.574' N	11 7.507' E
26	55 11.545' N	11 7.839' E	30	55 11.574' N	11 7.507' E
27	55 12.832' N	11 8.739' E	30	55 11.81' N	11 7.802' E
27	55 12.918' N	11 8.519' E	30	55 12.075' N	11 6.32' E
27	55 12.522' N	11 9.001' E	30	55 13.387' N	11 6.859' E

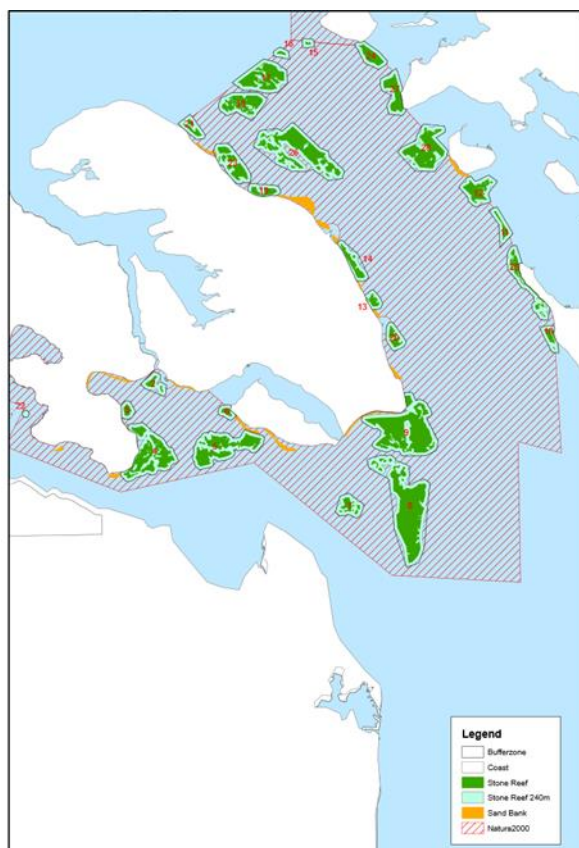
*DRAFT - Proposal for fisheries management measures in Danish Natura 2000 sites  
in the Western Baltic Sea*

30	55 13.397' N	11 6.863' E	34	55 9.515' N	10 59.983' E
30	55 13.366' N	11 7.055' E	35	55 20.698' N	11 5.781' E
30	55 13.219' N	11 7.528' E	35	55 20.501' N	11 5.489' E
30	55 12.743' N	11 8.047' E	35	55 19.429' N	11 4.654' E
30	55 11.882' N	11 7.928' E	35	55 18.993' N	11 4.615' E
33	55 10.52' N	11 0.624' E	35	55 18.847' N	11 4.228' E
33	55 9.891' N	10 56.303' E	35	55 18.904' N	11 3.106' E
33	55 9.835' N	10 56.615' E	35	55 18.823' N	11 3.041' E
33	55 9.651' N	10 56.891' E	35	55 20.109' N	11 3.973' E
33	55 9.493' N	10 57.265' E	35	55 18.823' N	11 3.041' E
33	55 9.355' N	10 57.346' E	35	55 18.872' N	11 2.921' E
33	55 9.383' N	10 59.387' E	35	55 19.173' N	11 2.188' E
33	55 9.419' N	10 59.402' E	35	55 19.162' N	11 1.756' E
33	55 9.509' N	10 59.432' E	35	55 19.195' N	11 1.75' E
33	55 9.761' N	10 59.518' E	35	55 19.674' N	11 1.496' E
33	55 10.084' N	10 59.832' E	35	55 19.793' N	11 1.681' E
33	55 10.301' N	11 0.194' E	35	55 20.048' N	11 1.664' E
33	55 10.35' N	11 0.271' E	35	55 20.365' N	11 1.713' E
33	55 10.566' N	11 0.25' E	35	55 20.817' N	11 1.873' E
33	55 10.675' N	11 0.948' E	35	55 21.281' N	11 2.069' E
33	55 10.885' N	10 55.558' E	35	55 21.423' N	11 3.756' E
33	55 11.174' N	10 55.765' E	35	55 21.639' N	11 5.288' E
33	55 9.807' N	10 56.235' E	35	55 21.429' N	11 6.001' E
33	55 12.186' N	10 58.317' E	35	55 21.349' N	11 5.918' E
33	55 12.329' N	10 59.308' E	35	55 21.119' N	11 5.624' E
33	55 11.837' N	11 0.701' E	35	55 21.084' N	11 5.633' E
33	55 11.229' N	11 1.175' E	35	55 21.04' N	11 5.628' E
33	55 10.675' N	11 0.948' E	35	55 20.991' N	11 5.667' E
33	55 11.904' N	10 57.704' E	35	55 20.964' N	11 5.667' E
34	55 9.411' N	11 3.202' E	35	55 20.903' N	11 5.631' E
34	55 9.411' N	11 2.46' E	35	55 20.814' N	11 5.537' E
34	55 9.676' N	11 2.082' E	35	55 20.796' N	11 5.613' E
34	55 9.383' N	11 1.07' E	35	55 20.758' N	11 5.667' E
34	55 9.39' N	10 59.871' E	35	55 20.736' N	11 5.715' E
34	55 9.991' N	11 3.159' E	35	55 20.705' N	11 5.766' E
34	55 9.866' N	11 0.298' E			
34	55 10.451' N	11 1.635' E			
34	55 10.501' N	11 2.061' E			
34	55 10.276' N	11 2.795' E			
34	55 9.39' N	10 59.871' E			
34	55 9.587' N	11 3.423' E			

## “Flensborg Fjord, Bredgrund og farvandet omkring Als”

**Habitat No. H173 and Bird protection area No. F64, Natura 2000 site No. 197 (EU Code: DK00VA254)**

Map showing positions of buffer zones around  
stone reefs (H1170)



Coordinates of the buffer zone which form the  
protection of the **stone reefs**:

Reef no.	Latitude	Longitude
2	54 53.509' N	9 46.189' E
2	54 53.686' N	9 45.822' E
2	54 54.227' N	9 46.743' E
2	54 54.056' N	9 47.246' E
2	54 53.788' N	9 47.19' E
2	54 53.647' N	9 47.665' E
2	54 53.175' N	9 47.547' E
2	54 53.239' N	9 47.288' E
2	54 53.509' N	9 46.189' E
3	54 53.037' N	9 44.738' E
3	54 53.034' N	9 45.098' E
3	54 52.581' N	9 45.493' E
3	54 52.313' N	9 45.144' E
3	54 52.304' N	9 44.662' E

3	54 52.405' N	9 44.49' E
3	54 52.551' N	9 44.514' E
3	54 52.701' N	9 44.481' E
3	54 52.814' N	9 44.46' E
3	54 53.037' N	9 44.738' E
4	54 52.09' N	9 44.886' E
4	54 52.164' N	9 45.97' E
4	54 51.927' N	9 46.449' E
4	54 51.774' N	9 46.719' E
4	54 51.576' N	9 47.24' E
4	54 51.49' N	9 47.397' E
4	54 51.374' N	9 47.565' E
4	54 51.319' N	9 47.574' E
4	54 51.201' N	9 47.734' E
4	54 51.167' N	9 47.772' E
4	54 51.161' N	9 47.917' E
4	54 51.148' N	9 47.979' E
4	54 51.117' N	9 48.044' E
4	54 51.086' N	9 48.079' E
4	54 50.948' N	9 48.13' E
4	54 50.939' N	9 48.149' E
4	54 50.918' N	9 48.175' E
4	54 50.899' N	9 48.193' E
4	54 50.665' N	9 48.391' E
4	54 50.612' N	9 48.374' E
4	54 50.572' N	9 48.345' E
4	54 50.541' N	9 48.294' E
4	54 50.525' N	9 48.24' E
4	54 50.5' N	9 48.096' E
4	54 50.498' N	9 48.028' E
4	54 50.436' N	9 47.909' E
4	54 50.351' N	9 47.861' E
4	54 50.318' N	9 47.83' E
4	54 50.254' N	9 47.679' E
4	54 50.242' N	9 47.609' E
4	54 50.24' N	9 47.551' E
4	54 50.22' N	9 47.443' E
4	54 50.217' N	9 47.377' E
4	54 50.24' N	9 47.234' E
4	54 50.252' N	9 46.969' E
4	54 50.147' N	9 46.907' E
4	54 50.04' N	9 45.967' E
4	54 50.07' N	9 46.089' E
4	54 50.099' N	9 46.164' E
4	54 50.13' N	9 46.21' E
4	54 50.107' N	9 46.381' E
4	54 50.073' N	9 46.522' E
4	54 50.067' N	9 46.599' E
4	54 50.091' N	9 46.783' E
4	54 50.106' N	9 46.841' E
4	54 50.809' N	9 45.451' E

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4	54 52.09' N	9 44.886' E	5	54 51.005' N	9 52.497' E
4	54 51.914' N	9 44.953' E	5	54 50.894' N	9 52.324' E
4	54 51.734' N	9 45.508' E	5	54 50.989' N	9 52.601' E
4	54 51.178' N	9 45.611' E	5	54 51.013' N	9 52.736' E
4	54 51.02' N	9 45.725' E	5	54 51.014' N	9 52.844' E
4	54 50.937' N	9 45.662' E	5	54 51.046' N	9 52.971' E
4	54 50.384' N	9 45.183' E	5	54 50.657' N	9 50.869' E
4	54 50.22' N	9 44.71' E	5	54 51.035' N	9 53.181' E
4	54 50.184' N	9 44.392' E	5	54 51.029' N	9 53.316' E
4	54 50.116' N	9 44.377' E	5	54 50.967' N	9 53.368' E
4	54 50.005' N	9 44.45' E	5	54 50.922' N	9 53.438' E
4	54 49.964' N	9 44.515' E	5	54 50.905' N	9 53.538' E
4	54 49.94' N	9 44.607' E	5	54 50.908' N	9 53.676' E
4	54 49.878' N	9 44.654' E	5	54 50.941' N	9 53.838' E
4	54 49.846' N	9 44.705' E	5	54 51.073' N	9 54.04' E
4	54 49.83' N	9 44.805' E	5	54 51.25' N	9 54.301' E
4	54 49.822' N	9 44.904' E	5	54 51.306' N	9 54.332' E
4	54 49.825' N	9 45.043' E	5	54 51.437' N	9 54.369' E
4	54 49.852' N	9 45.167' E	5	54 51.514' N	9 54.368' E
4	54 49.865' N	9 45.205' E	5	54 51.587' N	9 54.283' E
4	54 49.871' N	9 45.252' E	5	54 51.836' N	9 53.012' E
4	54 49.892' N	9 45.332' E	5	54 51.504' N	9 52.282' E
4	54 49.934' N	9 45.38' E	5	54 51.685' N	9 51.909' E
4	54 49.961' N	9 45.44' E	5	54 51.717' N	9 51.767' E
4	54 49.964' N	9 45.496' E	5	54 51.723' N	9 51.672' E
4	54 50.005' N	9 45.698' E	5	54 51.706' N	9 51.266' E
4	54 50.044' N	9 45.778' E	5	54 51.706' N	9 51.022' E
4	54 50.033' N	9 45.902' E	5	54 51.78' N	9 50.774' E
5	54 50.845' N	9 52.297' E	5	54 51.785' N	9 50.697' E
5	54 50.789' N	9 52.249' E	5	54 51.701' N	9 50.123' E
5	54 50.763' N	9 52.206' E	5	54 51.444' N	9 49.704' E
5	54 50.688' N	9 51.99' E	5	54 50.635' N	9 50.794' E
5	54 50.617' N	9 51.601' E	5	54 50.595' N	9 50.791' E
5	54 50.586' N	9 51.244' E	5	54 50.529' N	9 50.837' E
5	54 50.584' N	9 51.162' E	5	54 50.476' N	9 50.852' E
5	54 50.605' N	9 51.077' E	5	54 50.419' N	9 50.825' E
5	54 50.393' N	9 49.586' E	5	54 50.389' N	9 50.781' E
5	54 50.428' N	9 49.548' E	5	54 50.655' N	9 50.993' E
5	54 50.46' N	9 49.534' E	5	54 50.36' N	9 50.71' E
5	54 50.526' N	9 49.535' E	5	54 50.287' N	9 50.123' E
5	54 51.514' N	9 52.659' E	5	54 50.257' N	9 49.953' E
5	54 50.579' N	9 49.494' E	5	54 50.256' N	9 49.87' E
5	54 50.641' N	9 49.416' E	5	54 50.284' N	9 49.791' E
5	54 50.691' N	9 49.392' E	5	54 50.344' N	9 49.677' E
5	54 50.747' N	9 49.373' E	6	54 52.192' N	9 52.057' E
5	54 50.79' N	9 49.384' E	6	54 52.385' N	9 51.526' E
5	54 50.872' N	9 49.45' E	6	54 52.418' N	9 51.25' E
5	54 51.007' N	9 49.483' E	6	54 52.605' N	9 51.175' E
5	54 51.087' N	9 49.459' E	6	54 52.831' N	9 51.596' E
5	54 51.131' N	9 49.47' E	6	54 52.771' N	9 51.344' E
5	54 51.444' N	9 49.704' E	6	54 52.831' N	9 52.061' E
5	54 50.934' N	9 52.32' E	6	54 52.781' N	9 52.12' E
5	54 51.04' N	9 53.093' E	6	54 52.633' N	9 52.041' E
5	54 51.025' N	9 52.244' E	6	54 52.574' N	9 52.131' E
5	54 51.032' N	9 52.311' E	6	54 52.531' N	9 52.233' E
5	54 51.062' N	9 52.402' E	6	54 52.473' N	9 52.344' E

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6	54 52.458' N	9 52.374' E	9	54 52.5' N	10 2.223' E
6	54 52.4' N	9 52.49' E	9	54 52.473' N	10 1.892' E
6	54 52.351' N	9 52.422' E	9	54 53.22' N	10 4.134' E
6	54 52.831' N	9 51.596' E	9	54 52.302' N	10 1.138' E
7	54 49.116' N	9 59.562' E	9	54 52.091' N	10 1.159' E
7	54 49.249' N	10 0.171' E	9	54 51.775' N	10 2.023' E
7	54 48.776' N	10 1.256' E	9	54 51.808' N	10 2.257' E
7	54 48.341' N	10 0.994' E	9	54 51.686' N	10 2.487' E
7	54 48.233' N	10 0.716' E	9	54 51.606' N	10 2.445' E
7	54 48.374' N	10 0.189' E	9	54 51.531' N	10 2.457' E
7	54 48.326' N	9 59.517' E	9	54 51.461' N	10 2.309' E
7	54 48.492' N	9 59.239' E	9	54 51.233' N	10 1.892' E
7	54 49.116' N	9 59.562' E	9	54 51.146' N	10 1.847' E
8	54 49.795' N	10 2.926' E	9	54 51.08' N	10 1.889' E
8	54 50.228' N	10 1.616' E	9	54 51.024' N	10 2.022' E
8	54 50.578' N	10 1.454' E	9	54 50.978' N	10 2.192' E
8	54 50.739' N	10 2.384' E	9	54 50.935' N	10 2.372' E
8	54 50.739' N	10 2.384' E	9	54 50.899' N	10 2.613' E
8	54 50.732' N	10 2.688' E	9	54 50.861' N	10 2.786' E
8	54 50.698' N	10 2.829' E	9	54 50.862' N	10 2.989' E
8	54 50.726' N	10 2.92' E	9	54 50.941' N	10 3.225' E
8	54 50.737' N	10 3.069' E	9	54 50.87' N	10 3.465' E
8	54 50.735' N	10 3.119' E	9	54 50.869' N	10 3.699' E
8	54 50.728' N	10 3.159' E	9	54 50.834' N	10 3.776' E
8	54 50.718' N	10 3.191' E	9	54 50.77' N	10 3.821' E
8	54 50.621' N	10 3.418' E	9	54 50.712' N	10 3.916' E
8	54 50.509' N	10 3.489' E	9	54 50.692' N	10 3.999' E
8	54 50.374' N	10 4.141' E	9	54 53.233' N	10 4.607' E
8	54 50.263' N	10 4.464' E	9	54 53.196' N	10 4.721' E
8	54 49.533' N	10 4.343' E	9	54 52.901' N	10 4.936' E
8	54 49.779' N	10 5.347' E	9	54 52.939' N	10 5.179' E
8	54 49.611' N	10 5.838' E	9	54 52.923' N	10 5.305' E
8	54 48.625' N	10 5.639' E	9	54 52.821' N	10 5.659' E
8	54 47.05' N	10 5.375' E	9	54 52.635' N	10 5.808' E
8	54 46.423' N	10 4.986' E	9	54 52.6' N	10 5.883' E
8	54 46.235' N	10 4.119' E	10	54 55.306' N	10 14.667' E
8	54 47.75' N	10 3.306' E	10	54 55.217' N	10 14.732' E
8	54 48.324' N	10 3.243' E	10	54 55.14' N	10 14.777' E
8	54 49.298' N	10 3.069' E	10	54 55.089' N	10 14.88' E
9	54 52.544' N	10 5.93' E	10	54 54.692' N	10 14.915' E
9	54 52.37' N	10 6.044' E	10	54 54.739' N	10 14.421' E
9	54 52.276' N	10 5.981' E	10	54 55.758' N	10 13.576' E
9	54 52.209' N	10 5.668' E	10	54 55.263' N	10 14.729' E
9	54 52.018' N	10 5.799' E	10	54 55.818' N	10 14.632' E
9	54 51.298' N	10 6.441' E	10	54 55.758' N	10 13.576' E
9	54 50.892' N	10 6.316' E	10	54 55.643' N	10 14.649' E
9	54 53.11' N	10 4.169' E	10	54 55.577' N	10 14.629' E
9	54 53.11' N	10 4.169' E	10	54 55.48' N	10 14.561' E
9	54 53.021' N	10 4.203' E	10	54 55.428' N	10 14.629' E
9	54 52.869' N	10 4.209' E	10	54 55.342' N	10 14.641' E
9	54 52.754' N	10 4.272' E	11	54 59.867' N	10 10.894' E
9	54 52.639' N	10 4.306' E	11	54 58.931' N	10 10.949' E
9	54 52.478' N	10 4.046' E	11	54 59.498' N	10 11.882' E
9	54 50.684' N	10 5.541' E	11	55 0.436' N	10 10.201' E
9	54 52.404' N	10 3.875' E	11	55 0.592' N	10 10.779' E
9	54 52.457' N	10 2.816' E	11	55 0.436' N	10 10.201' E

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12	55 1.129' N	10 10.216' E	17	55 5.334' N	9 54.238' E
12	55 0.773' N	10 10.374' E	17	55 5.687' N	9 52.437' E
12	55 0.577' N	10 9.259' E	17	55 5.357' N	9 53.259' E
12	55 0.846' N	10 8.761' E	17	55 6.141' N	9 56.307' E
12	55 0.95' N	10 8.784' E	17	55 6.478' N	9 55.548' E
12	55 1.389' N	10 8.149' E	18	55 4.505' N	9 52.71' E
12	55 1.738' N	10 8.665' E	18	55 5.288' N	9 54.25' E
12	55 1.835' N	10 8.986' E	18	55 5.021' N	9 54.969' E
12	55 1.602' N	10 9.315' E	18	55 4.153' N	9 53.836' E
12	55 1.852' N	10 10.252' E	18	55 4.365' N	9 52.05' E
12	55 1.586' N	10 10.865' E	18	55 4.829' N	9 51.488' E
12	55 1.586' N	10 10.865' E	18	55 4.595' N	9 51.553' E
13	54 57.138' N	10 1.498' E	18	55 5.288' N	9 54.25' E
13	54 56.926' N	10 1.595' E	18	55 5.3' N	9 52.485' E
13	54 56.67' N	10 1.883' E	18	55 5.076' N	9 51.644' E
13	54 56.536' N	10 2.003' E	19	55 1.54' N	9 55.631' E
13	54 56.8' N	10 2.747' E	19	55 1.138' N	9 54.303' E
13	54 57.047' N	10 2.535' E	19	55 1.54' N	9 55.631' E
13	54 57.311' N	10 2.159' E	19	55 1.616' N	9 54.495' E
13	54 56.751' N	10 1.792' E	19	55 1.657' N	9 53.627' E
13	54 56.583' N	10 2.572' E	19	55 1.365' N	9 53.469' E
13	54 57.024' N	10 1.573' E	19	55 1.215' N	9 53.886' E
13	54 57.311' N	10 2.159' E	19	55 1.174' N	9 54.05' E
13	54 57.344' N	10 1.985' E	19	55 1.136' N	9 54.77' E
14	54 59.342' N	9 59.98' E	19	55 1.174' N	9 55.102' E
14	54 59.306' N	9 59.73' E	19	55 1.546' N	9 53.513' E
14	54 59.188' N	9 59.647' E	19	55 1.154' N	9 55.437' E
14	54 59.342' N	9 59.98' E	19	55 1.272' N	9 55.766' E
14	54 57.67' N	10 1.436' E	19	55 1.127' N	9 54.513' E
14	54 59.018' N	9 59.858' E	20	54 55.327' N	10 2.909' E
14	54 58.912' N	9 59.993' E	20	54 55.865' N	10 2.968' E
14	54 58.748' N	10 0.122' E	20	54 55.043' N	10 4.181' E
14	54 58.697' N	10 0.19' E	20	54 56.032' N	10 3.14' E
14	54 57.731' N	10 0.913' E	20	54 55.263' N	10 4.343' E
14	54 58.77' N	10 1.091' E	20	54 54.879' N	10 3.415' E
14	54 57.934' N	10 0.78' E	20	54 56.029' N	10 3.434' E
14	54 58.163' N	10 0.584' E	20	54 56.032' N	10 3.14' E
14	54 58.329' N	10 0.464' E	21	55 4.083' N	9 48.621' E
14	54 57.837' N	10 1.797' E	21	55 3.677' N	9 49.439' E
14	54 59.159' N	9 59.713' E	21	55 3.472' N	9 50.486' E
15	55 7.061' N	9 58.268' E	21	55 3.62' N	9 50.547' E
15	55 7.371' N	9 58.186' E	21	55 4.46' N	9 49.517' E
15	55 7.425' N	9 57.391' E	21	55 3.434' N	9 49.936' E
15	55 7.425' N	9 57.391' E	21	55 4.46' N	9 49.517' E
15	55 7.04' N	9 57.371' E	22	54 52.703' N	9 37.962' E
16	55 6.926' N	9 56.402' E	22	54 52.556' N	9 38.113' E
16	55 6.581' N	9 56.535' E	22	54 52.703' N	9 37.962' E
16	55 6.724' N	9 55.371' E	22	54 52.674' N	9 37.675' E
16	55 6.917' N	9 55.374' E	22	54 52.563' N	9 37.608' E
16	55 6.917' N	9 55.374' E	22	54 52.437' N	9 37.66' E
16	55 7.086' N	9 55.828' E	22	54 52.419' N	9 37.969' E
17	55 5.687' N	9 52.437' E	23	55 1.982' N	9 53.721' E
17	55 6.623' N	9 54.685' E	23	55 3.253' N	9 51.284' E
17	55 5.243' N	9 54.787' E	23	55 2.963' N	9 51.067' E
17	55 5.651' N	9 56.322' E	23	55 2.734' N	9 51.219' E
17	55 5.266' N	9 55.606' E	23	55 2.675' N	9 51.294' E

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23	55 2.419' N	9 51.517' E	25	54 56.316' N	10 13.38' E
23	55 2.337' N	9 51.79' E	25	54 56.351' N	10 13.235' E
23	55 2.056' N	9 52.057' E	25	54 56.406' N	10 13.156' E
23	55 1.651' N	9 52.695' E	25	54 56.661' N	10 13.088' E
23	55 1.699' N	9 53.646' E	25	54 56.735' N	10 13.174' E
23	55 2.366' N	9 53.366' E	25	54 56.76' N	10 13.272' E
23	55 3.278' N	9 52.154' E	25	54 56.873' N	10 13.244' E
23	55 3.253' N	9 51.284' E	25	54 57.033' N	10 13.114' E
24	55 7.248' N	10 1.614' E	25	54 57.061' N	10 13.077' E
24	55 7.217' N	10 1.481' E	25	54 57.111' N	10 12.976' E
24	55 7.247' N	10 1.341' E	25	54 57.174' N	10 12.908' E
24	55 7.18' N	10 1.006' E	25	54 57.206' N	10 12.819' E
24	55 6.396' N	10 1.726' E	25	54 57.291' N	10 12.683' E
24	55 6.133' N	10 2.688' E	25	54 57.287' N	10 12.589' E
24	55 6.346' N	10 3.264' E	25	54 57.295' N	10 12.529' E
24	55 6.46' N	10 3.326' E	25	54 57.312' N	10 12.476' E
24	55 7.281' N	10 1.685' E	25	54 57.359' N	10 12.384' E
24	55 7.248' N	10 1.614' E	25	54 57.406' N	10 12.321' E
24	55 6.842' N	10 2.743' E	25	54 57.488' N	10 12.204' E
25	54 58.043' N	10 11.492' E	25	54 57.594' N	10 12.116' E
25	54 58.068' N	10 11.479' E	25	54 57.625' N	10 12.083' E
25	54 58.489' N	10 11.412' E	25	54 57.645' N	10 12.069' E
25	54 58.689' N	10 11.455' E	25	54 57.678' N	10 12.02' E
25	54 58.763' N	10 11.491' E	25	54 57.702' N	10 11.997' E
25	54 59.001' N	10 11.714' E	25	54 57.729' N	10 11.947' E
25	54 59.027' N	10 12.099' E	25	54 57.76' N	10 11.905' E
25	54 58.305' N	10 12.475' E	25	54 57.772' N	10 11.893' E
25	54 58.32' N	10 12.336' E	25	54 57.781' N	10 11.867' E
25	54 58.24' N	10 12.261' E	25	54 57.799' N	10 11.834' E
25	54 58.131' N	10 12.25' E	25	54 57.844' N	10 11.769' E
25	54 58.094' N	10 12.264' E	25	54 57.861' N	10 11.748' E
25	54 58.01' N	10 12.268' E	25	54 57.871' N	10 11.738' E
25	54 57.94' N	10 12.311' E	25	54 57.897' N	10 11.718' E
25	54 57.901' N	10 12.35' E	25	54 57.923' N	10 11.655' E
25	54 57.79' N	10 12.371' E	25	54 58.021' N	10 11.512' E
25	54 57.698' N	10 12.471' E	25	54 58.043' N	10 11.492' E
25	54 57.618' N	10 12.585' E	25	54 56.947' N	10 13.256' E
25	54 57.479' N	10 12.689' E	26	55 2.406' N	9 55.459' E
25	54 57.368' N	10 12.942' E	26	55 3.147' N	9 53.862' E
25	54 57.216' N	10 13.195' E	26	55 3.758' N	9 54.315' E
25	54 57.142' N	10 13.323' E	26	55 3.835' N	9 55.545' E
25	54 57.017' N	10 13.555' E	26	55 3.734' N	9 55.911' E
25	54 56.931' N	10 13.616' E	26	55 4.09' N	9 56.653' E
25	54 56.836' N	10 13.829' E	26	55 3.017' N	9 58.579' E
25	54 56.65' N	10 14.154' E	26	55 2.908' N	9 59.105' E
25	54 56.504' N	10 14.357' E	26	55 2.694' N	9 59.185' E
25	54 56.016' N	10 14.196' E	26	55 2.125' N	10 0.197' E
25	54 56.017' N	10 13.938' E	26	55 1.798' N	10 0.078' E
25	54 56.047' N	10 13.818' E	26	55 1.731' N	9 59.062' E
25	54 56.047' N	10 13.728' E	26	55 2.174' N	9 58.022' E
25	54 56.074' N	10 13.63' E	26	55 2.093' N	9 57.502' E
25	54 56.105' N	10 13.588' E	26	55 2.11' N	9 56.562' E
25	54 56.157' N	10 13.548' E	26	55 2.406' N	9 55.459' E
25	54 56.193' N	10 13.538' E	27	55 6.18' N	10 3.938' E
25	54 56.211' N	10 13.491' E	27	55 5.344' N	10 4.361' E
25	54 56.239' N	10 13.439' E	27	55 5.256' N	10 4.302' E



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27	55 5.201' N	10 4.182' E
27	55 5.138' N	10 4.192' E
27	55 5.093' N	10 4.24' E
27	55 4.832' N	10 4.315' E
27	55 4.606' N	10 4.339' E
27	55 4.549' N	10 4.435' E
27	55 4.525' N	10 4.62' E
27	55 4.284' N	10 4.335' E
27	55 4.329' N	10 3.358' E
27	55 4.686' N	10 3.222' E
27	55 5.106' N	10 3.562' E
27	55 5.274' N	10 2.929' E
27	55 5.45' N	10 2.804' E
27	55 5.751' N	10 2.814' E
27	55 6.18' N	10 3.938' E
28	55 3.933' N	10 5.745' E

28	55 3.835' N	10 7.238' E
28	55 3.602' N	10 7.282' E
28	55 3.373' N	10 6.635' E
28	55 2.859' N	10 7.445' E
28	55 2.581' N	10 7.321' E
28	55 2.027' N	10 6.512' E
28	55 2.053' N	10 5.121' E
28	55 2.826' N	10 3.918' E
28	55 3.022' N	10 4.233' E
28	55 3.283' N	10 5.237' E
28	55 3.481' N	10 5.27' E
28	55 3.933' N	10 5.745' E

## **Annex J - Fishery data: Description of methods**

This Annex describes the methods used in the analyses of fishing activity in and around the Natura 2000 sites covered in the present proposal. Fishery data in terms of logbook and VMS data have been forwarded by Swedish fishery authorities for the period 2011-2015 and by German fishery authorities for the period 2011-2015 upon special request. Fishery data has also been forwarded by Polish fishery authorities for the period 2011-2015, where Estonian fishery data has been forwarded for the period 2010-2012.

The Danish Technical University, Institute of Aquatic Resources (DTU Aqua) has carried out the analyses for the Danish AgriFish Agency in accordance with the Commissions guidelines from 2008 *"Fisheries measures for marine Natura 2000 sites – A consistent approach to request for fisheries management measures under the Common Fisheries Policy"*. Special focus has been given to the impact the proposed fishery management measures might have on current fishing activities in and around the concerned Natura 2000 sites.

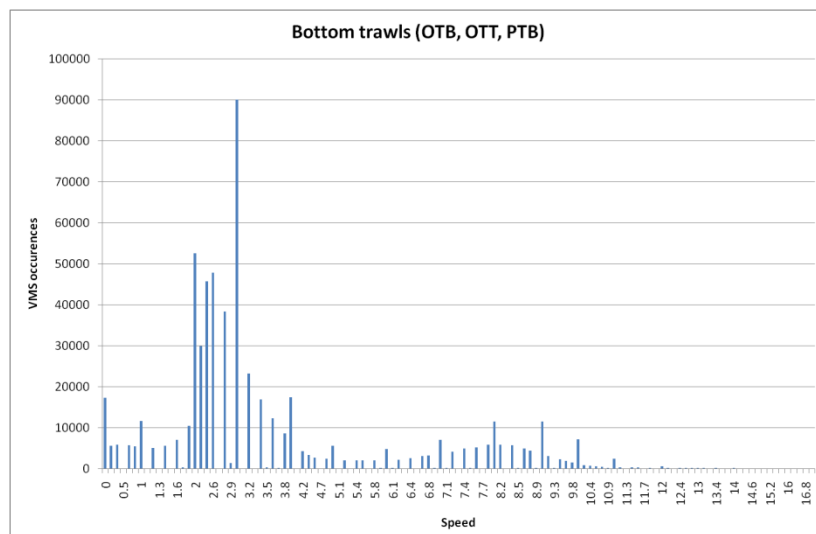
The Natura 2000 sites in which fishery management measures are proposed are located in several ICES squares. By combining logbook data and VMS pings, fishing intensity for a smaller area, such as a Natura 2000 site, can be estimated. Methods for working with the combined logbook/VMS data have been developed during the EU project "Development of tools for logbook and VMS data analysis" (No Mare/2008/10 Lot2), resulting in the R-package VMS tools. This method has also been recommended by the ICES groups SGVMS/WGSFD. DTU Aqua's analysis of fishery data in relation to present proposal follows these recommendations.

### Description of methods

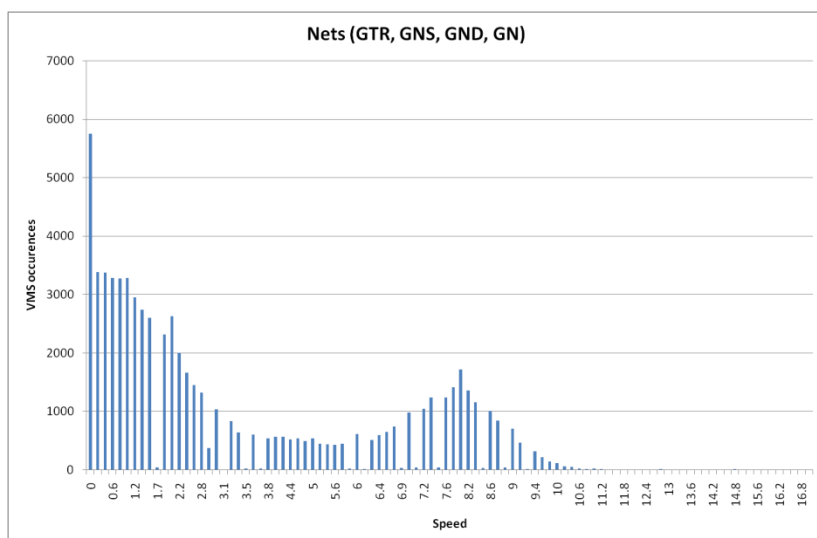
VMS data have been merged with logbook data using vessel-id and date as a unique key. The combined data give information on gear types used in each trip and information about vessel-id, position, time and speed.

When the gear type is known, a speed filter can be applied to the VMS data, whereby only the active fishing operations are analyzed. The speed filters used in this analysis are based on speed histograms given by gear groups. Two examples of speed histograms for bottom trawls and nets are displayed below in figure 1 and 2.

**Figure 1 and 2. Speed histograms for bottom trawls and net types**



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The table below shows the speed filters used in analyses carried out in relation to the present proposal.

<b>Gear group</b>	<b>Gear codes</b>	<b>Min speed</b>	<b>Max speed</b>
Dredge	DRB, DRO, DRC, BMS	2	4.5
Bottom trawls	OTB, OTT, PTB, TBN, TBS	2	4
Beam trawl	TBB	2	4
Pelagic trawls	OTM, PTM	2	4
Lines	LH, LHP, LL, LLD, LLS, LX	0	0.1
Traps	FPO, FYK, FPN	0	4
Nets	GTR, GNS, GND, GN	0	4
Anchored seine	SDN	0	4
Fly shooting seine	SSC	0	4
Purse seine	PS	0	4

An uncertainty in this method is that the speed filters applied, are very general. However, it is the experience of DTU Aqua that the above given speed filters give a good overall picture of the fishing activity subdivisions 22-24. Another challenge with the data set is that VMS was only mandatory for vessels  $\geq 15$  m overall length (oal) in 2011, however in 2012 VMS became mandatory for vessels  $\geq 12$  m oal. For Danish vessels in 2011, 45% of the landing weight from subdivisions 22-24 was from vessels without VMS, in 2012 the percentage was 25, in 2013 20 and in 2014 24. For the 2015 the value was 21.

Description of data: VMS and logbook data for DK, SE and DE vessels [to be updated with PL, EE data]

**German data** includes landing data for the Natura 2000 sites and VMS positions within the Natura 2000 sites for the years 2011-2015 and fishing effort data per 0.05 degrees squares in the Danish EEZ. The **Swedish data** included summarized weight and values for the Natura 2000 sites concerned (given for the entire fleet). Swedish VMS positions has also been provided for the years 2011-2015. In the **Danish data**, mobile bottom contacting gears are defined as Bottom trawls, Beam trawls, Anchored Seines, Fly shooting seines and Dredges. Other gears include Nets, Lines, Pelagic trawls, Traps and Purse seines. In the **German data** mobile bottom contacting gears are defined as OTB, PTB, SSC, TBB, DRB and SDN. Other gears include GNS, GTR, OTM and PTM. In the **Polish data** mobile bottom contacting gears are defined as OTB. The **Polish data** was sent to Denmark for the area defined as D7, which covers 1/9 ICES square 38G4. The site 'Adler Grund and Rønne Banke, however, also covers a small part of ICES square 39G4.

Description of data: Landing weight and values for DK, SE and DE

In order to assess the impact of the proposed fisheries management measures, landings weight and value need to be assessed per Natura 2000 site for different gear groups.

Logbooks contain information about landed weight by species while sales notes data includes weight and value by species per fishing trip.

For the **Danish data**, DTU Aqua has merged these estimates to distribute the value on the trip proportionally to the landings weight. The dataset including species, weight and value is then merged with the VMS positions by vessel-id and date. This means that the weight and value by species is distributed evenly out on VMS positions where fishing activity is assumed, by vessel-id and date.

The landings and values by species within a Natura 2000 site can then be summarized (see section 6.2). An average exchange rate of 7.45 DKK/EUR has been used in the analyses.

The **Swedish data** on landings in the Natura 2000 sites were received as landed kg per year per Natura 2000 site, DCF level 6 metier and species. The data used is based on Swedish logbooks, which include fishing event positions. The dataset covers the whole Swedish fleet, thus also landings from smaller vessels <12 meters. To estimate the value of the Swedish landings, the species prices per kg from the Danish landings have been used.

The **German data** was sent to Denmark with number of vessels, fishing hours, total value, total weight and landings by species by year, Natura 2000 site, gear and vessel length for the years 2010-2015.

The **Polish data** was sent to Denmark for the area defined as D7 (Annex K, figure 1), which covers 1/9 ICES rectangle 38G4. The site 'Adler Grund and Rønne Banke, however, also covers a small part of ICES rectangle 39G4. In addition parts of the shown Polish landings may be from fishing outside the Natura 2000 site. Data covers number of vessels, number of fishing hours, total value, total weight and landings by species by year, Natura 2000 site, gear and vessel length for the years 2012-2015.

Annex K shows the landings from the three Natura 2000 sites compared to the total fishery in subdivisions 22-24. In total for Danish vessels, they contribute to 6.07 % of the landings from subdivisions 22-24 from vessels with VMS when looking at the average of 2011-2015 landings. The value of the landings for the 3 Natura 2000 sites contribute to 6.11 % of the value of landings from subdivisions 22-24 from vessels with VMS when looking at the average of the value of landings in 2011-2015. In Annex K, landings and value of landings for the three Natura 2000 sites is shown by year, gear group and species.

The Swedish vessels have landings with a value of 2927 euro on average for 2011-2015 from the site 'Adler Grund og Rønne Banke'. German vessels have landings from all three sites, with annual variations. In Flensborg Fjord, the average value of the landings from German vessels in 2011-2015 was 46977 euro.

## **Annex K - Total landings and catch value per Member State per Natura 2000 site**

This annex contains information of total landings (bottom trawls) and catch value per Member State per site per year (table 1-13) and at species level per country per site per year (table 14-18).

Data in the following tables are not specified with thousands-seperator. All the values are in total kilograms.

**Table 1: Total landings (kg) from Danish vessels in the Western Baltic Sea 2011-2015**

<b>Vessel type/Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean (2011-2015)</b>
<b>Vessels with VMS</b>	14,037,181	18,549,678	22,246,968	15,462,111	17,326,275	17,524,443
<b>Other vessels</b>	11,572,859	6,257,508	5,706,704	4,930,691	4,486,854	6,590,923
<b>Sum</b>	25,610,040	24,807,186	27,953,672	20,392,802	21,813,129	24,115,366

**Table 2: Total landings (kg) from Danish vessels in the three Natura 2000 sites**

<b>N2000 area/Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean (2011-2015)</b>
<b>Adler Grund og Rønne Banke</b>	1,143	35,508	1,276	8,783	1,248	9,592
<b>Centrale Storebælt</b>	153,432	177,243	402,320	270,787	766,338	354,024
<b>Flensborg Fjord</b>	1,369,233	796,330	790,650	263,345	276,839	699,279

**Table 3: Total landings (kg) from Swedish vessels in the three Natura 2000 sites**

<b>N2000 area/Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean (2011-2015)</b>
<b>Adler Grund og Rønne Banke</b>	8,000	0	3,495	0	0	2.299
<b>Flensborg Fjord</b>	0	0	0	0	0	0
<b>Centrale Storebælt</b>	0	0	0	0	0	0

**Table 4: Total landings (kg) from bottom trawls for German vessels in the three Natura 2000 sites**

<b>Natura 2000 site/year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>Mean (2011-2015)</b>
<b>Adler Grund og Rønne Banke</b>	1,049	41,087	154	119	0	8,482
<b>Centrale Storebælt og Vresen</b>	4,040	0	0	0	0	808
<b>Flensborg Fjord</b>	98,388	34,657	111,298	72,681	73,642	78,133

**Tabel 5: Total landings (kg) from bottom trawls for Estonian vessels in the Natura 2000 site 'Adler Grund og Rønne Banke'**

Natura 2000 site/Year	2010	2012	Mean
Adler Grund og Rønne Banke	145	2.417	1.281

**Tabel 6: Total landings (kg) from bottom trawls for Polish vessels in the Natura 2000 site 'Adler Grund og Rønne Banke' (D7) see figure 1**

Natura 2000 site/Year	2011	2012	2013	2014	2015	Mean
Adler Grund og Rønne Banke	0	7,428	21,185	475	0	5.818

**Table 7: Value of the total landings (EUR) from Danish vessels in the Western Baltic**

Vessel type/Year	2011	2012	2013	2014	2015	Mean (2011-2015)
Vessels with VMS	8,408,763	13,803,121	13,689,495	10,655,961	12,154,234	11,742,315
Other vessels	15,759,031	11,711,196	10,529,810	9,121,201	9,221,008	11,268,449
Sum	24,167,794	25,514,317	24,219,305	19,777,162	21,375,242	23,010,764

**Table 8: Value of the total landings (EUR) from Danish vessels in the three Natura 2000 sites**

Natura 2000 site/Year	2011	2012	2013	2014	2015	Mean (2011-2015)
Adler Grund og Rønne Banke	1,271	47,483	1,504	13,694	717	12,934
Centrale Storebælt	199,333	317,309	407,504	424,917	604,266	390,666
Flensborg Fjord	370,018	607,521	583,964	269,903	326,348	431,551

**Table 9: Value of the landings (EUR) from Danish vessels in the three Natura 2000 sites:**

Natura 2000 site	EUR 2011	EUR 2012	EUR 2013	EUR 2014	EUR 2015	Mean (2011-2015)
<b>Adler Grund og Rønne Banke</b>						
<b>Bundtrawl</b>						
Atlantic Cod	300	41,099	1,393	13,483	535	11,362
Atlantic Herring	0	0	0	0	5	1
European Flounder	0	28	32	50	3	22
European Plaice	0	269	53	17	22	72
Saithe	0	0	0	21	0	4
Sandeels	0	0	0	0	125	25
Turbot	0	6	23	61	12	20
Whiting	0	26	3	62	15	21
<b>Pelagisk trawl</b>						
Atlantic Cod	922	0	0	0	0	184
Atlantic Herring	0	6,056	0	0	0	1,211
European Flounder	3	0	0	0	0	1

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European Plaice	18	0	0	0	0	4
<b>Centrale Storebælt og Vresen</b>						
<b>Bundtrawl</b>						
Atlantic Cod	154,925	129,616	165,026	224,912	195,437	173,983
Atlantic Halibut	0	0	9	28	14	10
Atlantic Herring	0	0	915	0	2,325	648
Brill	3,061	4,971	4,133	3,199	2,943	3,661
Common Dab	3,640	7,879	4,296	4,020	3,721	4,711
Common Sole	10,117	26,311	23,956	30,918	46,048	27,470
European Anchovy	0	0	0	0	6	1
European Flounder	1,950	9,040	16,778	18,055	4,403	10,045
European Hake	0	0	17	29	10	11
European Plaice	8,109	32,821	30,684	37,549	55,460	32,925
Haddock	11	0	0	5	11	6
Lemon Sole	370	1,244	1,129	994	1,187	985
Ling	44	37	51	55	87	55
Lumpfish	789	376	335	2,628	3,255	1,477
Norway Lobster	0	0	673	0	0	135
Saithe	0	0	8	3	55	13
Sea Trout	0	0	0	0	0	0
Sprat	10,006	4,650	19,012	0	15,992	9,932
Tub Gurnard	0	4	7	14	31	11
Turbot	2,592	3,970	3,668	5,339	4,269	3,968
Unknown Species	3	20	10	13	0	9
Whiting	1	0	51	0	3	11
<b>Garn</b>						
Atlantic Cod	0	41,043	83,261	84,729	119,540	65,715
Atlantic Mackerel	0	38	0	0	0	8
Brill	0	3,252	1,461	705	5,693	2,222
Common Dab	0	1,703	1,566	590	1,005	973
Common Sole	0	31,379	11,164	4,745	13,481	12,154
European Eel	0	0	0	0	123	25
European Flounder	0	924	1,167	387	69	509
European Plaice	0	10,380	5,929	3,590	9,967	5,973
Lemon Sole	0	111	174	60	60	81
Ling	0	46	305	535	92	196
Lumpfish	0	1,137	343	560	2,691	946
Saithe	0	0	0	55	2,444	500
Turbot	0	2,671	696	389	980	947
Unknown Species	0	99	4	0	0	21
<b>Pelagisk trawl</b>						
Atlantic Cod	0	0	39	485	316	168
Atlantic Herring	0	0	1,106	0	16,962	3,614
Brill	0	0	123	39	0	32
Common Dab	0	0	28	0	17	9
Common Sole	0	0	310	78	0	78
European Anchovy	0	0	0	0	20	4
European Flounder	0	0	128	13	2	29
European Plaice	0	0	666	176	13	171
Sprat	3,715	3,573	28,173	0	95,520	26,196
Turbot	0	0	17	41	0	12
Whiting	0	0	95	0	11	21

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og farvandet omkring Als**

**Bundtrawl**

Atlantic Cod	29,410	348,216	287,512	166,020	186,017	203,435
Atlantic Herring	0	0	0	0	0	0
Brill	1,469	692	990	412	411	795
Common Dab	2,621	22,490	15,889	9,705	10,313	12,204
Common Sole	162	267	423	388	193	287
European Eel	0	0	215	0	0	43
European Flounder	1,210	19,085	21,335	17,394	13,182	14,441
European Plaice	11,693	105,675	112,395	73,266	108,834	82,372
Haddock	0	3	3	4	21	6
Lemon Sole	55	887	1,833	666	557	799
Lumpfish	18	145	114	118	475	174
Mulletts	2	6	3	0	0	2
Saithe	0	3	4	28	11	9
Sea Trout	11	2	0	0	0	3
Sprat	0	0	0	348	0	70
Turbot	401	2,129	2,642	1,429	1,345	1,589
Whiting	130	60	602	125	58	195

**Pelagisk trawl**

Atlantic Cod	1,312	1,122	346	0	0	556
Atlantic Herring	0	0	12,315	0	6	2,464
Brill	7	0	0	0	0	1
Sprat	321,515	93,887	127,206	0	4,925	109,507
Sticklebacks	0	12,850	0	0	0	2,570
Whiting	0	0	136	0	2	28



**Table 10: Value of the landings (EUR) from bottom trawls for Swedish vessels in the three Natura 2000 sites**

Natura 2000 site/Year	2011	2012	2013	2014	2015	Mean
Adler Grund og Rønne Banke	10,407	0	4,228	0	0	2,927
Flensborg Fjord og havet omkring Als	0	0	0	0	0	0
Centrale Storebælt og Vresen	0	0	0	0	0	0

**Table 11: Value of the landings (EUR) from German vessels in the three Natura 2000 sites**

Natura 2000 site/Year	2011	2012	2013	2014	2015	Mean (2011-2015)
Adler Grund og Rønne Banke	1,059	56,945	197	139	0	11,668
Centrale Storebælt og Vresen	10,048	0	0	0	0	2,010
Flensborg Fjord	48,530	35,473	56,930	37,591	56,363	46,977

**Table 12: Value of the landings (EUR) from Estonian vessels in the Natura 2000 site 'Adler Grund og Rønne Banke'**

Natura 2000 site/Year	2010	2012	Mean
Adler Grund og Rønne Banke	159	2.861	1.510

**Table 13: Value of the landings (EUR) from Polish vessels for the Natura 2000 site 'Adler Grund og Rønne Banke (D7) see figure 1**

Natura 2000 site/Year	2011	2012	2013	2014	2015	Mean
Adler Grund og Rønne Banke	0	4,983	32,851	114	0	7,589

**Table 14: Weight (kg) of landings per specie level from Danish vessels by year (2010-2015)**

Natura 2000 site	KG 2011	KG 2012	KG 2013	KG 2014	KG 2015	Mean (2011- 2015)
<b>Adler Grund og Rønne</b>						
<b>Banke</b>						
<b>Bundtrawl</b>						
		24,54				
Atlantic Cod	269	5	1,102	8,470	522	6,981
Atlantic Herring	0	0	0	0	24	5
European Flounder	0	66	106	145	13	66
European Plaice	0	259	57	23	28	74
Saithe	0	0	0	33	0	7
Sandeels	0	0	0	0	642	128
Turbot	0	1	6	14	3	5
Whiting	0	26	5	98	17	29
<b>Pelagisk trawl</b>						
Atlantic Cod	837	0	0	0	0	167
		10,61				
Atlantic Herring	0	0	0	0	0	2,122
European Flounder	9	0	0	0	0	2
European Plaice	24	0	0	0	0	5
<b>Centrale Storebælt og</b>						
<b>Vresen</b>						
<b>Bundtrawl</b>						
		60,42	95,05	123,9	82,24	
Atlantic Cod	77,224	8	1	54	9	87,781
Atlantic Halibut	0	0	1	3	2	1
Atlantic Herring	0	0	2,771	0	9,624	2,479
Brill	448	821	636	447	560	582
Common Dab	4,968	9,887	6,209	5,304	4,468	6,167
Common Sole	808	2,076	1,893	2,672	3,645	2,219
European Anchovy	0	0	0	0	25	5
		15,77	30,33	30,84	11,73	
European Flounder	3,247	7	3	4	6	18,387
European Hake	0	0	13	33	7	11
		29,76	31,10	40,68	50,31	
European Plaice	7,759	0	7	4	1	31,924
Haddock	14	0	1	6	12	7
Lemon Sole	69	305	219	190	211	199
Ling	16	12	30	22	48	25
Lumpfish	214	40	51	1,221	1,384	582
Norway Lobster	0	0	105	0	0	21
Saithe	0	0	6	7	39	10
Sea Trout	0	0	0	0	0	0
		13,36	63,88		66,19	
Sprat	42,852	0	4	0	1	37,257
Tub Gurnard	0	2	2	6	24	7
Turbot	292	557	481	601	549	496
Unknown Species	2	10	5	10	0	5
Whiting	1	0	168	1	3	35
<b>Garn</b>						

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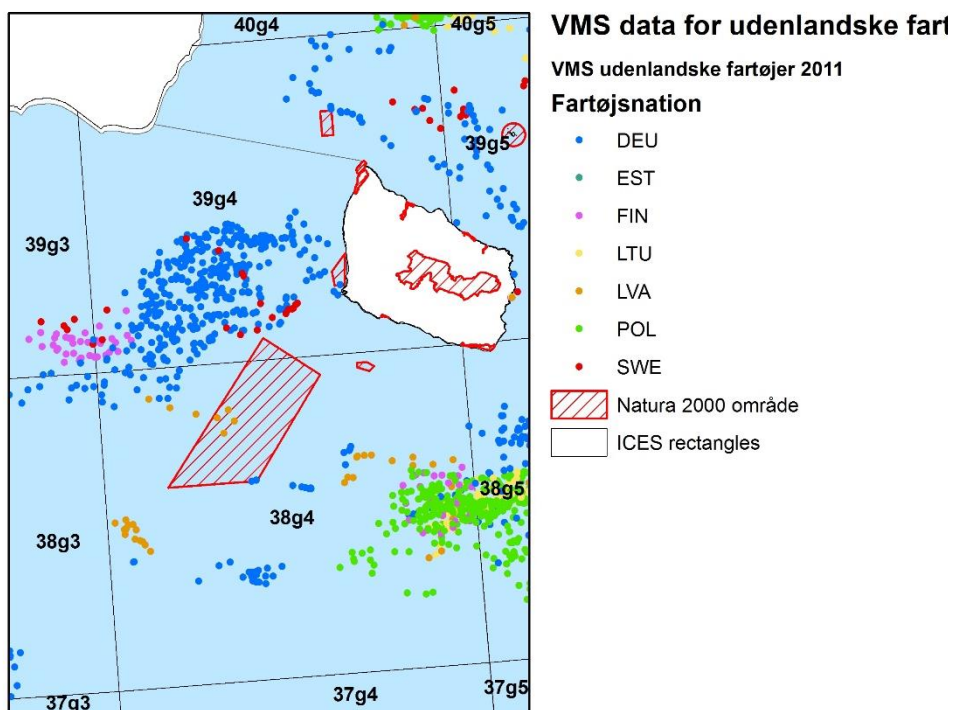
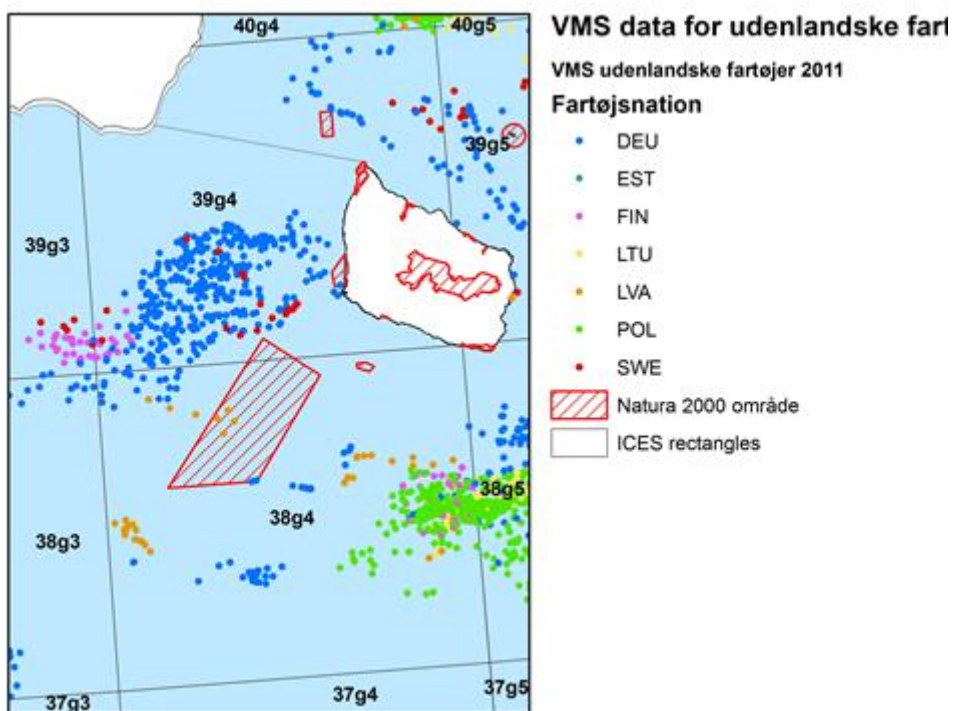
		16,05	54,73	58,04	51,71	
Atlantic Cod	0	2	9	2	4	36,109
Atlantic Mackerel	0	14	0	0	0	3
Brill	0	606	283	108	952	390
Common Dab	0	2,085	2,214	789	1,236	1,265
Common Sole	0	1,993	809	334	860	799
European Eel	0	0	0	0	9	2
European Flounder	0	1,498	1,935	624	145	840
European Plaice	0	8,905	5,999	3,544	8,391	5,368
Lemon Sole	0	26	31	12	8	15
Ling	0	17	166	223	42	90
Lumpfish	0	324	104	582	1,012	404
Saithe	0	0	0	71	1,790	372
Turbot	0	530	111	42	117	160
Unknown Species	0	26	2	0	0	6
<b>Pelagisk trawl</b>						
Atlantic Cod	0	0	11	176	424	122
					71,32	
Atlantic Herring	0	0	3,542	0	6	14,974
Brill	0	0	14	4	0	4
Common Dab	0	0	34	0	19	11
Common Sole	0	0	20	5	0	5
European Anchovy	0	0	0	0	82	16
European Flounder	0	0	241	25	5	54
European Plaice	0	0	567	196	12	155
		12,13	98,19		397,0	
Sprat	15,517	0	4	0	62	104,580
Turbot	0	0	2	3	0	1
Whiting	0	0	339	0	46	77
<b>Flensborg Fjord, Bredgrund og farvandet omkring Als</b>						
<b>Bundtrawl</b>						
		187,6	183,1	113,1	88,17	
Atlantic Cod	16,004	32	88	10	6	117,622
Atlantic Herring	0	1	0	0	0	0
Brill	269	122	175	66	100	146
		31,95	28,61	18,01	15,73	
Common Dab	4,504	0	4	9	0	19,763
Common Sole	12	20	32	34	17	23
European Eel	0	0	16	0	0	3
		38,77	46,85	34,39	35,36	
European Flounder	2,609	5	9	2	4	31,600
		105,1	129,8	95,62	118,3	
European Plaice	11,629	66	73	8	65	92,132
Haddock	0	3	2	9	20	7
Lemon Sole	11	190	347	124	98	154
Lumpfish	8	23	14	80	243	74
Mullets	1	4	2	0	0	1
Saithe	0	3	4	80	10	19
Sea Trout	3	1	0	0	0	1
Sprat	0	0	0	1,358	0	272
Turbot	52	352	404	199	217	245
Whiting	286	96	1,246	247	123	400

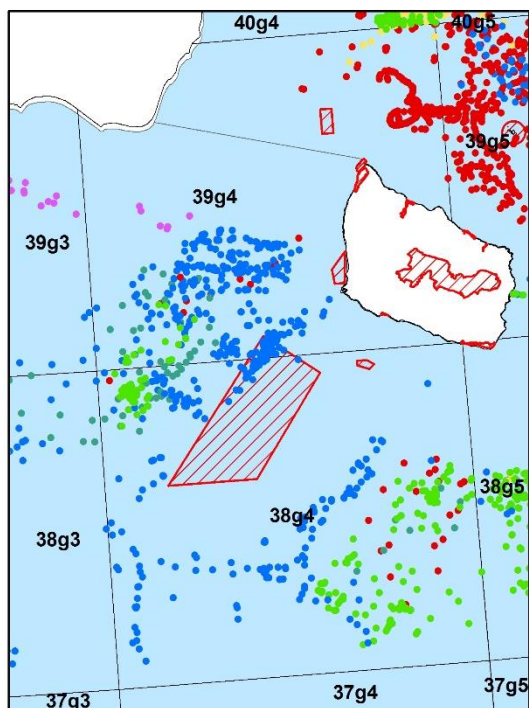
*DRAFT - Proposal for fisheries management measures in Danish Natura 2000 sites  
in the Western Baltic Sea*

**Pelagisk trawl**

Atlantic Cod	638	603	160	0	0	280
			35,25			
Atlantic Herring	0	0	7	0	21	7,056
Brill	1	0	0	0	0	0
	1,333,2	379,6	364,0		18,34	
Sprat	06	41	67	0	6	419,052
		51,74				
Sticklebacks	0	9	0	0	0	10,350
Whiting	0	0	390	0	8	79

**Map showing fishing activity with mobile bottom contacting gears in Danish  
EEZ in and around the Natura 2000 site 'Adler Grund og Rønne Banke'**





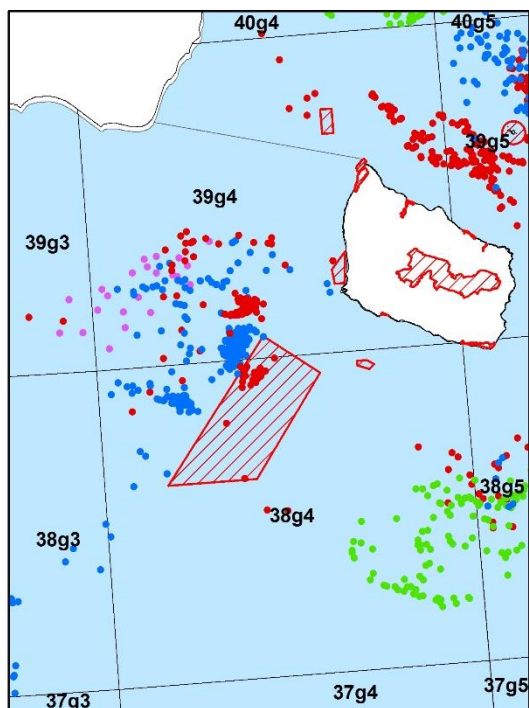
### VMS data for udenlandske fart

VMS udenlandske fartøjer 2012

#### Fartøjsnation

- DEU
- EST
- FIN
- LTU
- LVA
- POL
- SWE

- Natura 2000 område
- ICES rectangles



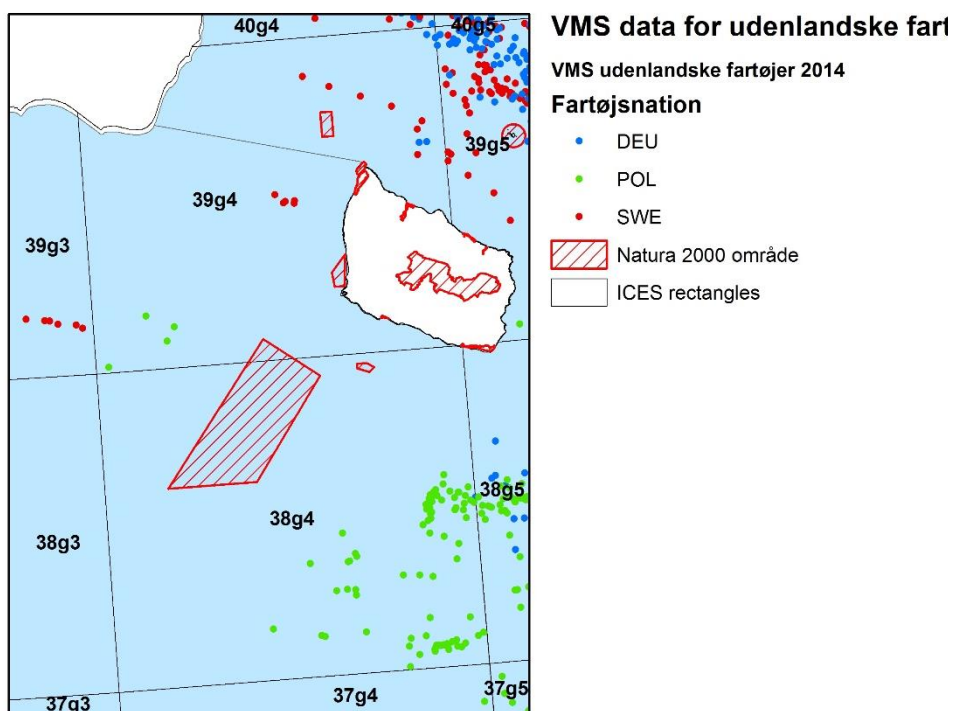
### VMS data for udenlandske fart

VMS udenlandske fartøjer 2013

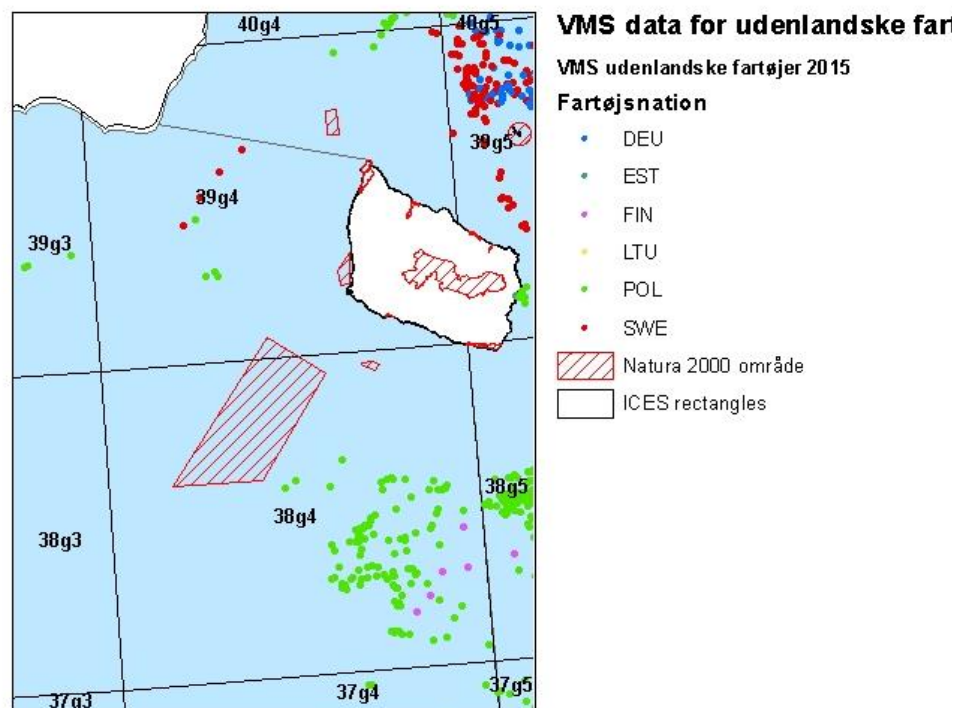
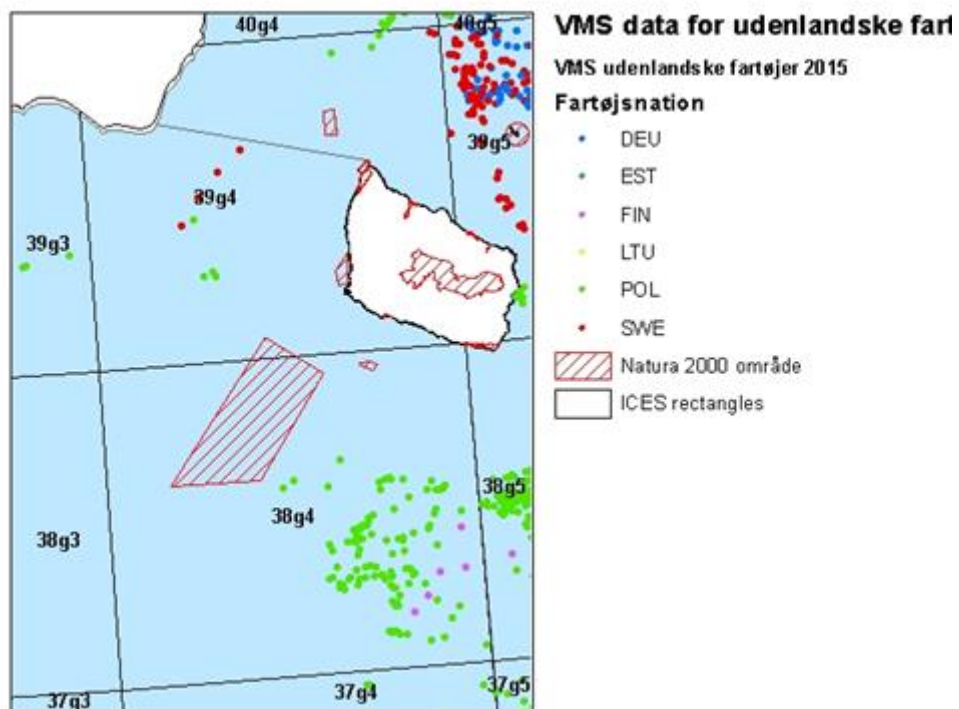
#### Fartøjsnation

- DEU
- FIN
- POL
- SWE

- Natura 2000 område
- ICES rectangles









**Table 15: Weight (kg) and value (€) of landings from Swedish vessels by year (2010-2015)**

Natura 2000 site	2011		2012		2013		2014		2015	
	KG	EUR	KG	EUR	KG	EUR	KG	EUR	KG	EUR
<b>Adler Grund og Rønne Banke</b>										
<b>Bottom trawl</b>										
Atlantic Cod	8000	10407	0	0	3495	4228	0	0	0	0
<b>Gillnet</b>										
Atlantic Cod	0	0	57	60	0	0	0	0	0	0
European Flounder	0	0	80	48	0	0	285	142	0	0
European Plaice	0	0	9751	11954	210	254	229	258	0	0
<b>Longlines</b>										
Atlantic Cod	0	0	0	0	9619	11636	0	0	0	0
<b>Pelagic trawl</b>										
Atlantic Cod	0	0	0	0	0	0	600	143		
Atlantic Herring	0	0	0	0	0	0	36000	14203		
Sprat	0	0	0	0	0	0	0	0		

**Table 16: Weight (kg) of landings from German vessels by year (2010-2015)**

Natura 2000 site	KG 2011	KG 2012	KG 2013	KG 2014	KG 2015	Mean (2011-2015)
<b>Adler Grund og Rønne Banke</b>						
<b>Bottom trawl</b>						
Atlantic Cod	855	40,626	123	24	0	8,326
Common Dab	1	2	0	50	0	11
European Flounder	170	277	27	35	0	102
European Plaice	9	175	4	9	0	39
Saithe	0	0	0	1	0	0
Turbot	9	3	0	0	0	2
Whiting	6	2	0	0	0	2
<b>Centrale Storebælt og Vresen</b>						
<b>Bottom trawl</b>						
Atlantic Cod	655	0	0	0	0	131
Brill	93	0	0	0	0	19
Common Dab	282	0	0	0	0	56
Common Sole	529	0	0	0	0	106
European Flounder	1,313	0	0	0	0	263
European Plaice	1,088	0	0	0	0	218
Haddock	12	0	0	0	0	2
Lemon Sole	11	0	0	0	0	2
Lumpfish	4	0	0	0	0	1
Turbot	53	0	0	0	0	11
<b>Flensborg Fjord</b>						
<b>Bottom trawl</b>						
Atlantic Cod	4,990	9,858	8,526	6,667	4,596	6,927
Atlantic Herring	3,496	2,863	15,420	10,442	5,362	7,517
Brill	89	4	3		1	19
Common Dab	4,790	6,185	3,199	5,885	15,594	7,131
Common Sole	14	36	3	5	6	13
European Anchovy	0	0	18,904	0	2,177	4,216
European Flounder	9,140	6,687	6,020	2,976	5,902	6,145
European Plaice	5,809	8,961	6,433	5,447	16,191	8,568
Haddock	11	0	0	120	5	27
Jack and horse mackerels ne	0	0	17,765	9,676	0	5,488
Lemon Sole	1	0	16	2	0	4
Saithe	0	0	0	29	2	6
Sandeels	0	0	2,761	0	0	552
Sprat	26,010		21,616	12,892	19,654	16,034
Turbot	112	23	25	34	90	57
Whiting	43,922	41	10,603	18,499	4,054	15,424
Witch Flounder	0	0	2	6	8	3

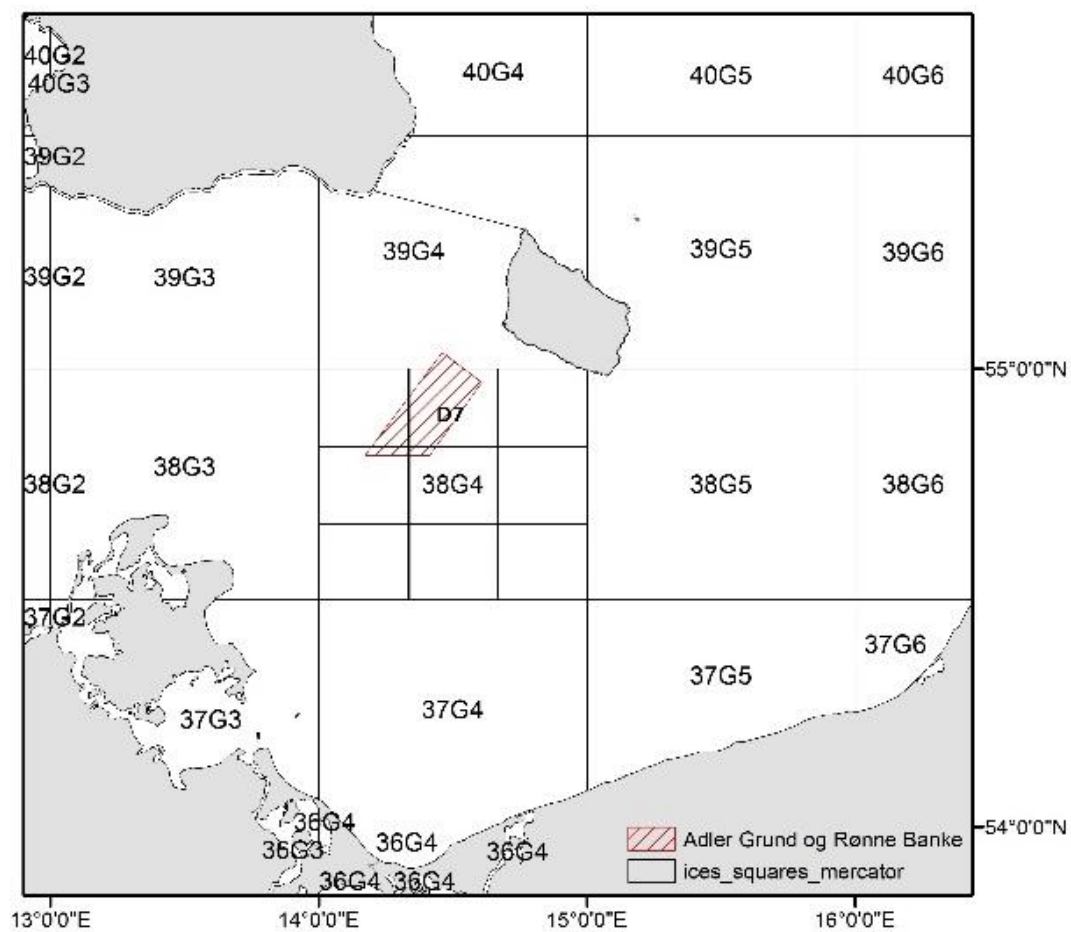
**Table 17: Weight (kg) and value (€) of landings from Estonian vessels by year (2010-2012) for the Natura 2000 site 'Adler Grund og Rønne Banke'**

Natura 2000 site	Weight (kg)	Estimated value (DKK)	Estimated value (EUR)
<b>2010</b>			
<b>Cod</b>			
Pelagic trawl			
38G4	145	1182	159
<b>2012</b>			
<b>Cod</b>			
Bottom trawl			
38G4	1657	14643	1965
39G4(24)	760	6675	896

**Table 18: Weight (kg) and value (€) of landings from Polish vessels by year (2012-2015) for the Natura 2000 site 'Adler Grund og Rønne Banke' (D7) see figure 1**

Year	Gear code	Species	Landing, sales notes (kg)	Value (PLN)	Value (DKK)	Value (EUR)
2012	Bottom trawl (OTB)	Cod	3043	18808	33488	4495
		Flounder	825	1650	2938	394
		Plaice	125	312.5	556	75
		Turbot	10	80	142	19
	Bottom trawl (OTB) and gillnet (GNS)	Flounder	1050	takeover	takeover	takeover
		Plaice	2375	takeover	takeover	takeover
2013	Bottom trawl (OTB)	Cod	18260	133772	237675	31903
		Flounder	2925	3975	7062	948
2014	Bottom trawl (OTB)	Flounder	475	475	846	114
2015	Midwater trawl (OTM)	Herring	9752	8192	14586	1958
		Sandeel	3250	2334	4156	558
		Sprat	9250	6582	11720	1573

**Figure 1: Map showing the Polish subarea D7 within ICES rectangle 38G4**



## Annex L - Fishery effort

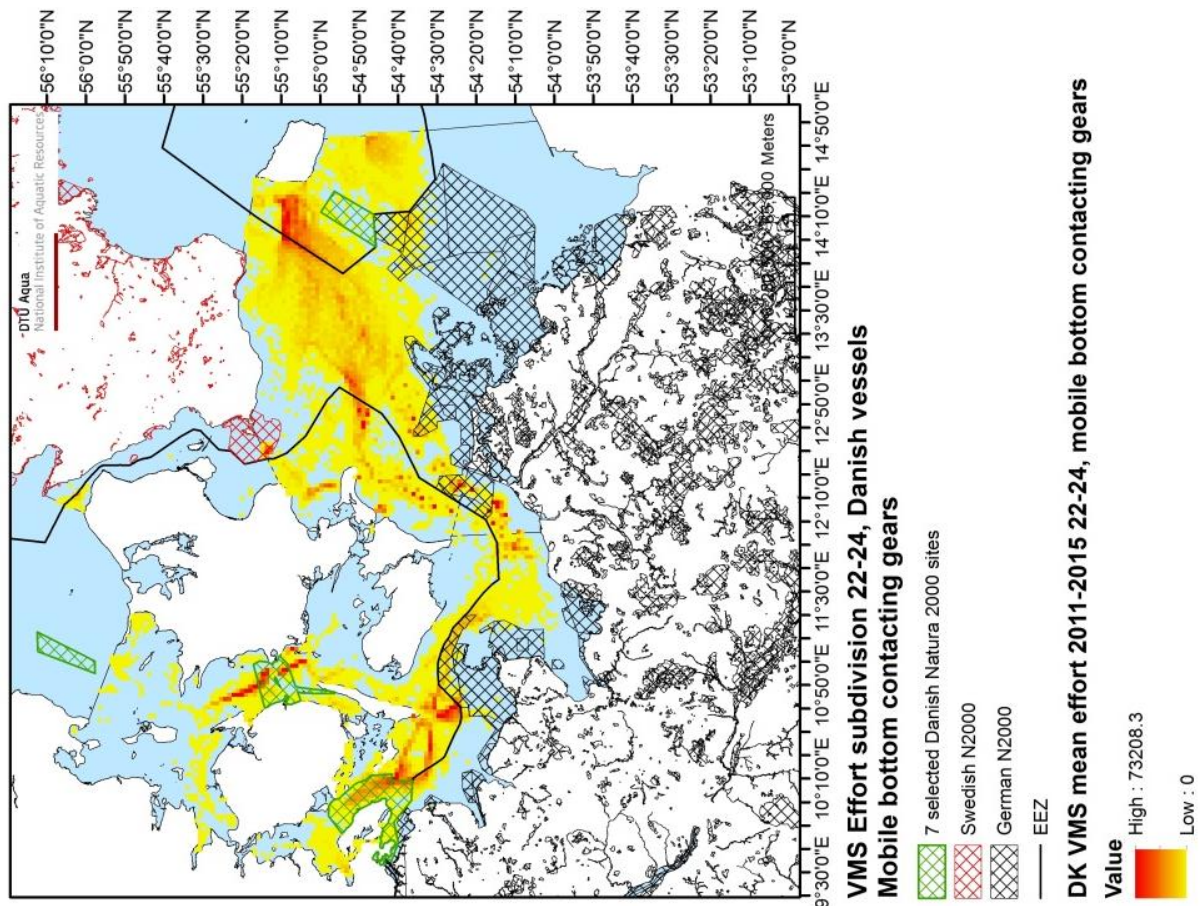
Fishery effort can be expressed as VMS effort to give an indication of where in a given area, fishery takes place and at what intensity. DTU Aqua has analyzed fishery effort in relation to the present proposal for Danish, Swedish and German vessels.

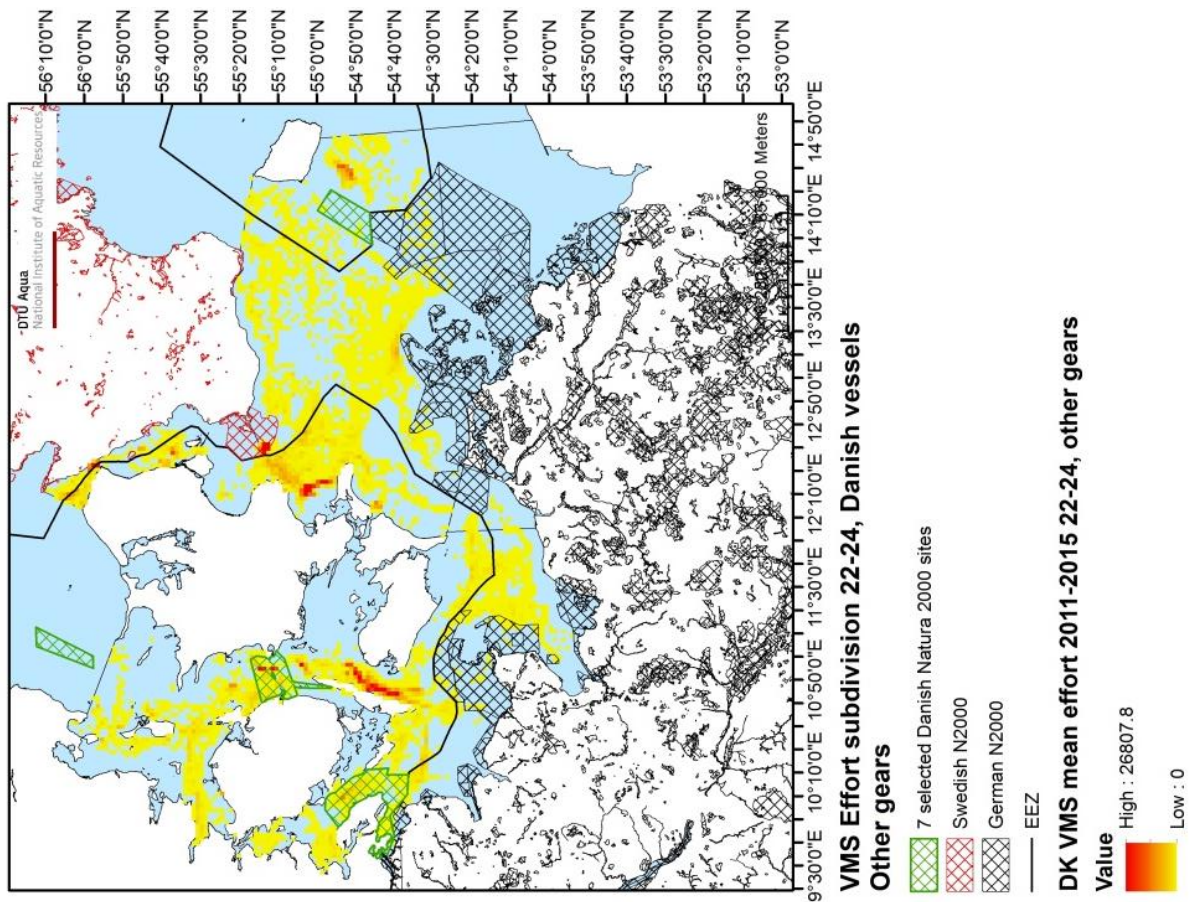
### Danish vessels

VMS effort is expressed as VMS point\*VMS interval\*kW of the vessel for each VMS ping classified as fishing activity. As the VMS interval for Danish vessels is one hour, it will be expressed as VMS point\*kW. In 2011, the VMS data are available for vessels  $\geq 15$  m, whereas in 2012 the VMS data are available for vessels  $\geq 12$  m. To make a VMS effort estimate that is comparable between years, the amount of extra effort that the vessels of length 12-15 meters are adding to the 2012 data, can be expressed as  $(\text{VMS} \cdot \text{kW}_{12-15\text{m}}) / (\text{VMS} \cdot \text{kW}_{\geq 15\text{m}})$ . This gives the factor 0.494 for bottom contacting mobile gear groups, and the factor 0.086 for other gear groups. The 2011 data have been raised by these factors accordingly.

The average VMS effort within cell sizes of 2000 m for the years 2011-2015 is shown in the maps below (figure 1) for bottom contacting mobile gear groups and other gear groups for Danish vessels for the Baltic area.

**Figure 1. Distribution of Danish fishing VMS effort (Number of VMS recordings \* vessel kW) by gear group given as an average for the period 2011-2015**





The tables below (table 1 and 2) show fishing activity for Danish vessels in the three Natura 2000 sites in relation to fishery in the Baltic Sea in general based on VMS effort.

**Table 1. Average (2011-2015) VMS effort inside the Natura 2000 sites and the stone reef buffer zones, relatively to the total VMS effort in the Baltic Sea for Danish vessels with mobile bottom contacting gears.**

	Natura 2000 site	Stone reef buffer
<b>Adler Grund og Rønne Banke</b>	0.088	0.021
<b>Centrale Storebælt og Vresen</b>	2.901	0.731
<b>Flensborg Fjord, Bredgrund og farvandet omkring Als</b>	4.663	0.074
<b>Total</b>	7.653	0.826



**Table 2. Average (2011-2015) VMS effort inside the Natura 2000 sites and the stone reef buffer zones, relatively to the total VMS effort in the Baltic Sea for Danish vessels with other gear groups.**

	Natura 2000 site	Stone reef buffer
<b>Adler Grund og Rønne Banke</b>	0.121	0.016
<b>Centrale Storebælt og Vresen</b>	3.977	2.285
<b>Flensborg Fjord, Bredgrund og farvandet omkring Als</b>	4.079	0.142
<b>Total</b>	8.177	2.443

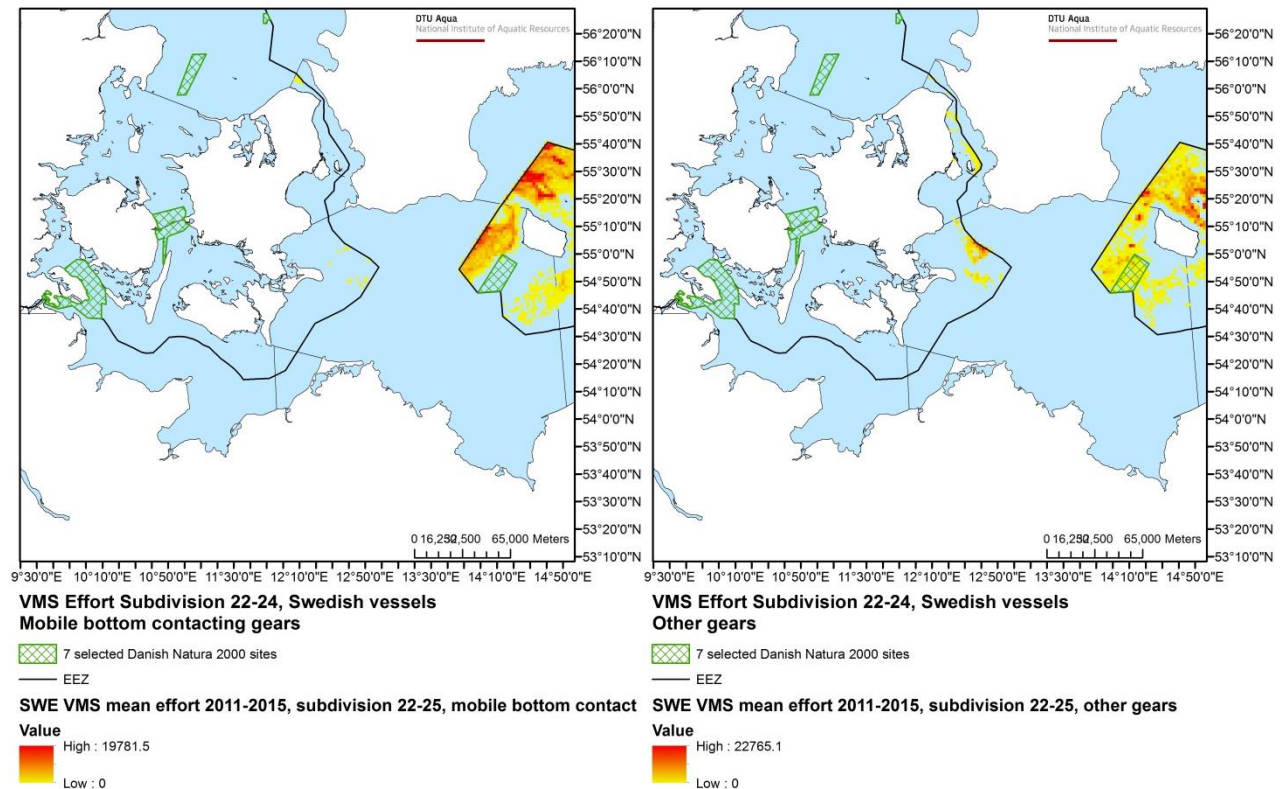
The maps in figure 1 and data in table 1 and 2 clearly show the very low fishing effort within the Natura 2000 sites when looking at Danish vessels above 12 meters.

### Swedish vessels

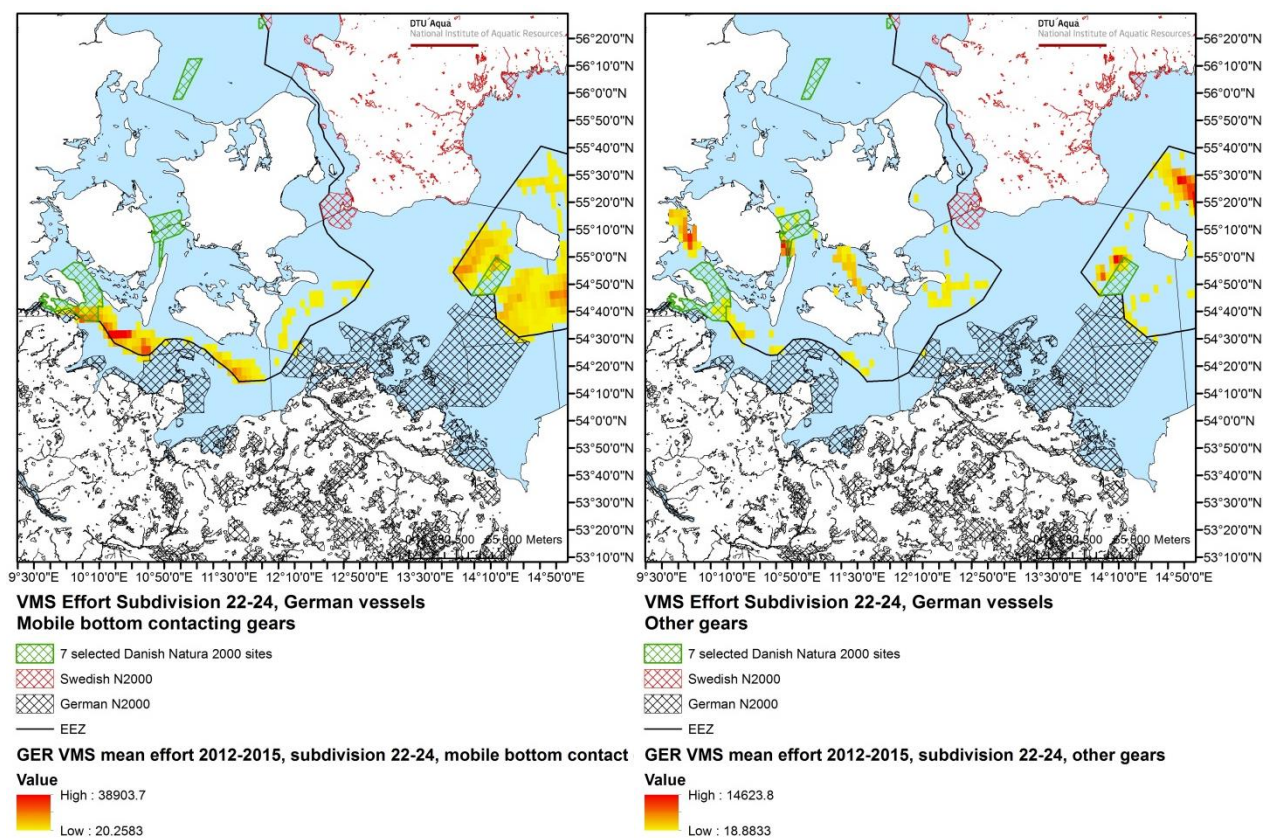
The forwarded Swedish VMS data contains information on position, date, speed, VMS interval, vessel kW, kW hours, gear and DCF level 6 metier for the years 2011-2015, and could be processed the same way as the Danish data.

The Swedish VMS data has variable ping-period with values between 0.25 or 1. The VMS effort for the Swedish data is calculated as VMS ping\*kW\*ping period. An average VMS effort map for the years 2011-2015 is calculated in the same way as for the Danish vessels, see figure 2.

**Figure 3. Distribution of Swedish fishing VMS effort (Number of VMS recordings \* vessel kW \* ping-period) by gear group in the Baltic Sea area given as an average for the period 2011-2015**



**Figure 4. Distribution of German fishing VMS effort by gear groups given as an average for the period 2010-2015**





## German data

The German effort data is given for the years 2012-2015 and contains information on effort hours and kW fishing hours for the gear groups DTS (Demersal Trawlers and Seiners), PTS (Pelagic trawlers and Seiners) and PG (Passive Gears). The spatial information is given as C-squares, which is a reference system, at a resolution of 0.05 degrees. The data is split into Mobile Bottom Contacting Gears and Other Gears, and the kW fishing hours is averaged for the years 2012-2015.

