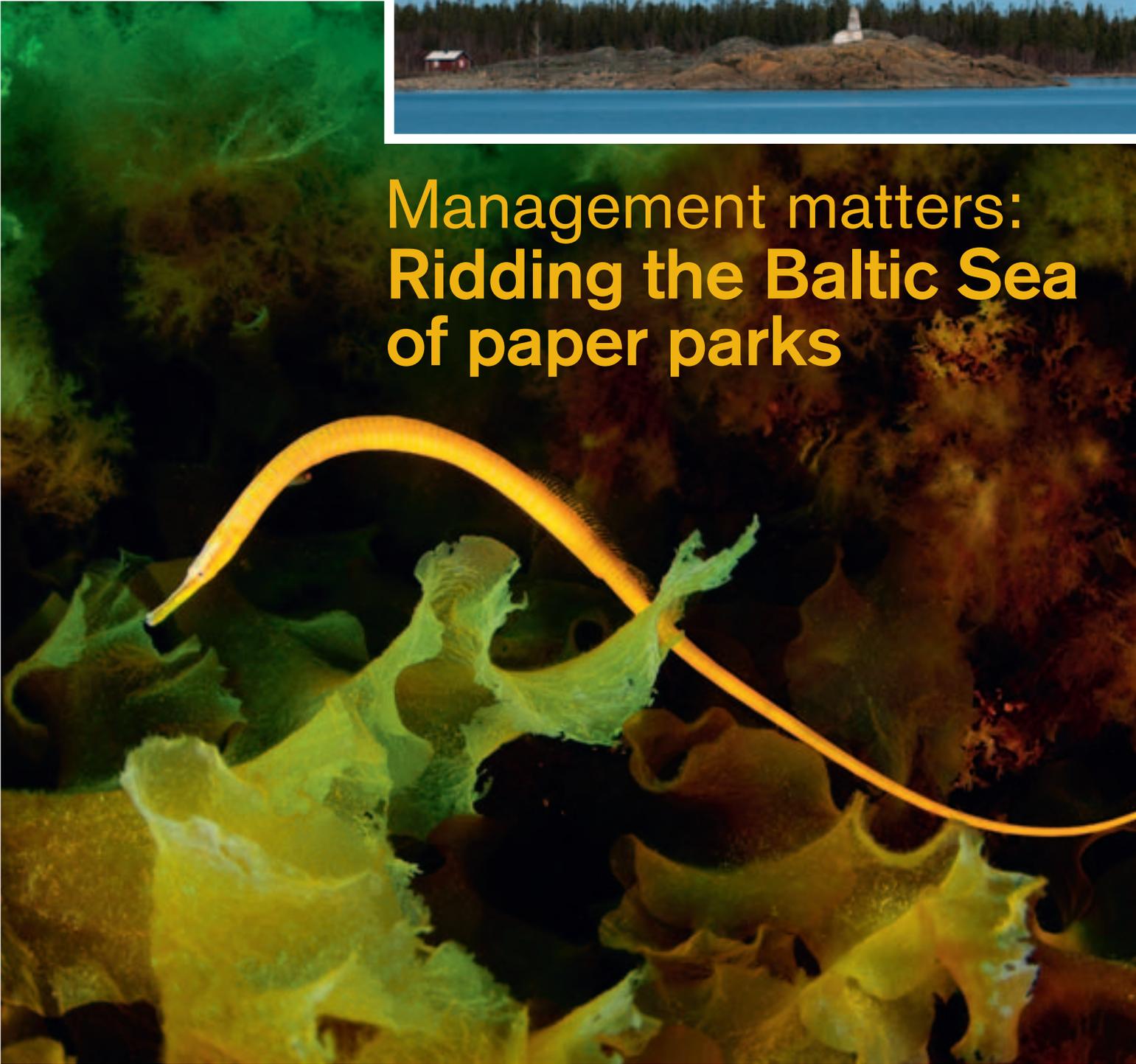




# Management matters: Ridding the Baltic Sea of paper parks



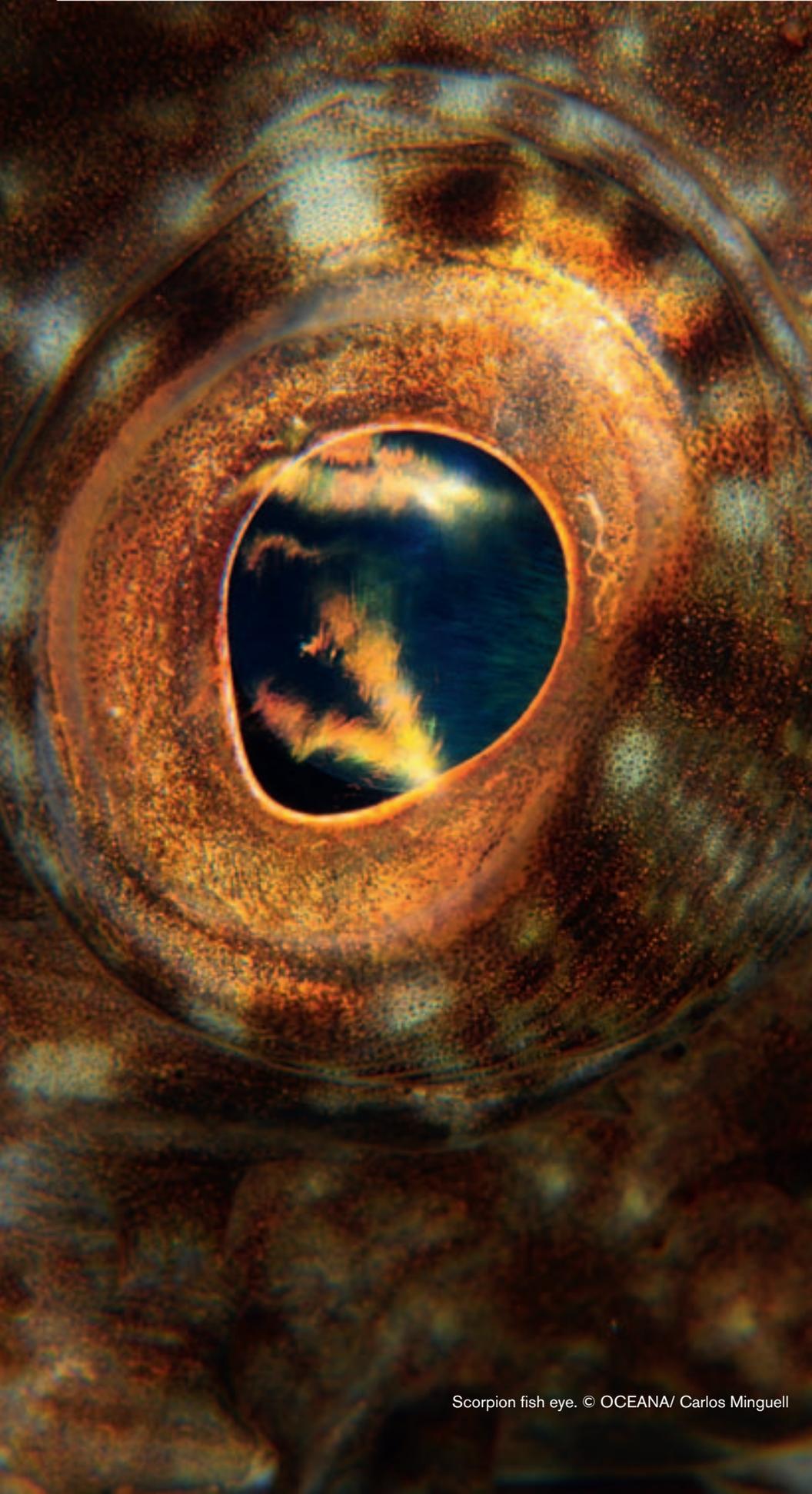
# Acronyms

<b>BSPA</b>	Baltic Sea Protected Area
<b>CBD</b>	Convention on Biological Diversity
<b>EEZ</b>	Exclusive Economic Zone
<b>GDEP</b>	General Directorate for Environmental Protection (Poland)
<b>GES</b>	Good Environmental Status
<b>HELCOM</b>	Baltic Marine Environment Protection Commission
<b>MO</b>	Maritime Office Poland
<b>MPA</b>	Marine Protected Area
<b>MSFD</b>	Marine Strategy Framework Directive
<b>MSP</b>	Marine Spatial Planning (also called Maritime Spatial Planning)
<b>N2000</b>	Natura 2000
<b>SAC</b>	Special Area of Conservation
<b>SCI</b>	Sites of Community Importance
<b>SDF</b>	Standard Data Form
<b>SPA</b>	Special Protection Areas
<b>SwAM</b>	Swedish Agency for Marine and Water Management
<b>TW</b>	Territorial Water
<b>VMS</b>	Vessel Monitoring System

# Contents

Executive summary	02
1. Introduction	04
European Union	07
Baltic Sea	09
2. Marine Protected Areas in the Baltic Sea	10
Natura 2000 sites	11
Baltic Sea Protected Areas (BSPAs)	11
Review of management status by country	13
Finland	13
Estonia	15
Latvia	16
Lithuania	18
Russia	20
Poland	21
Germany	22
Sweden	24
Denmark	28
3. The Danish example of improved MPA management	30
4. Harmful activities in Marine Protected Areas	34
Mussel dredging in Denmark	35
Harbour porpoise bycatch in Poland	35
5. Conclusions	38
6. Oceana's recommendations for effective MPA management	40
References	43

# Executive summary



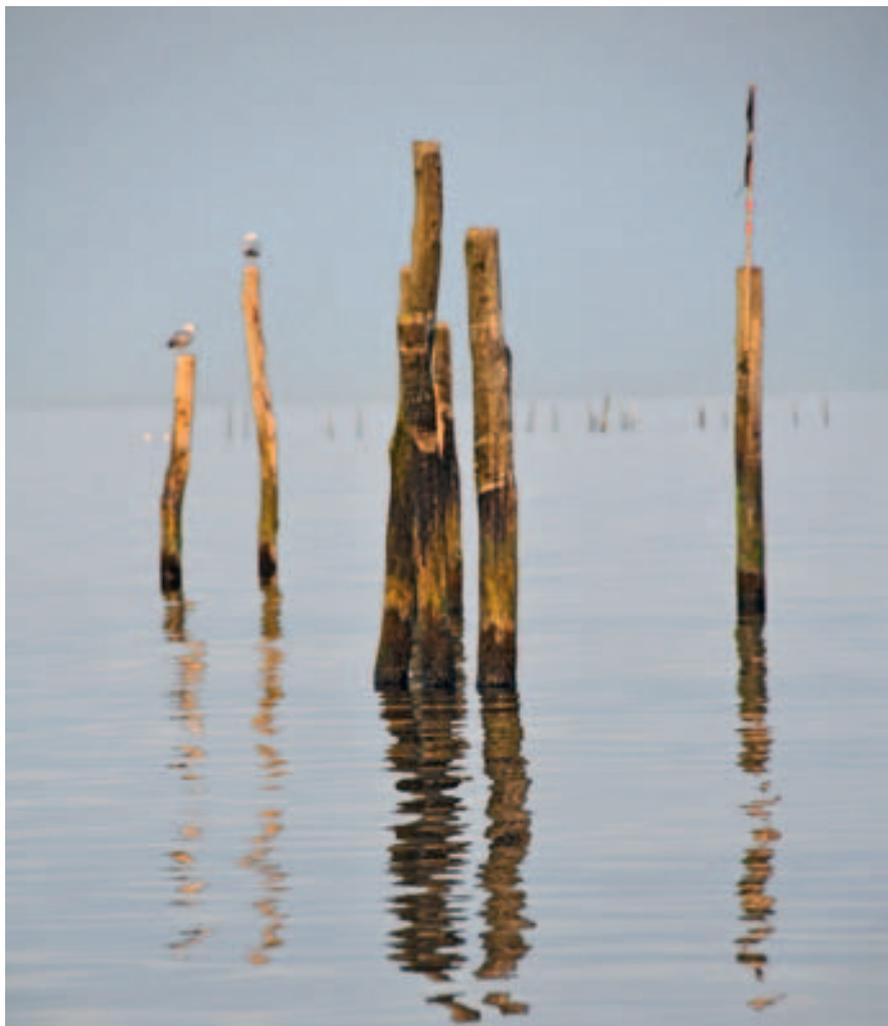
Threats to the marine environment are multiple and growing and the Baltic Sea is no stranger to them. Numerous human activities have put its ecosystems under severe pressure and it has become one of the most polluted seas in the world. In order to safeguard species and habitats, and to recover the healthy status of the sea, one of the most widely recognized and effective tools to address the activities affecting marine and coastal ecosystems is needed: a network of well-managed marine protected areas (MPAs). Such a network, if it is well designed, can help curb the loss of marine resources and recover entire ecosystems by providing protection and decreasing the loss of endangered marine species and habitats, and restoring depleted fish stocks.

Today about 12% of the Baltic Sea is covered by MPAs, but despite this relatively high figure, the management of these sites remains poor and uneven.

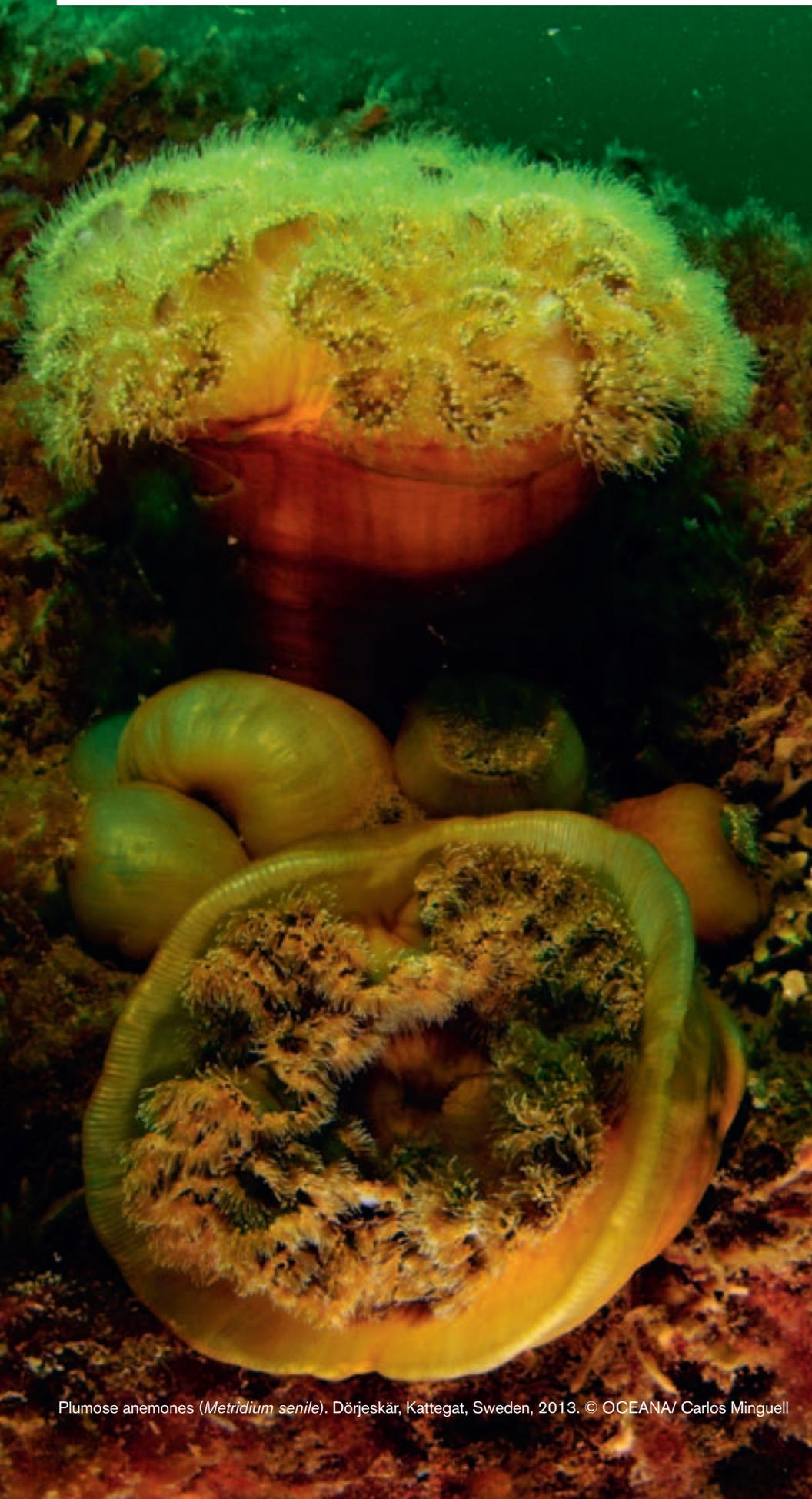
This report provides an overview of MPAs and the quality of their management in the Baltic Sea and Kattegat, covering the EU's Natura 2000 sites, HELCOM Baltic Sea Protected Areas (BSPAs), and MPAs under national law. The status of MPA management plans, including possible fisheries measures, was reviewed to the extent that information was available. Data was collected using EU (Standard Data Forms, SDF) and HELCOM BSPA databases. Because some of these are not consistently updated and contain some outdated data that fails to reflect the most accurate situation, we also approached national authorities directly. Information was obtained from all countries except the Russian Federation. The European Environment Agency and European Commission Directorate-General for the Environment (DG ENVI) were consulted as well.

Overall we have found out that more than half of the MPAs in the Baltic Sea and Kattegat have management plans, but they often fail to offer any concrete measures or solutions, remaining protected only on paper. To protect against threats to the marine environment and reverse the decreasing biodiversity trend, proper management measures are needed. The first crucial step is to identify the threats facing MPAs in the region so as to be able to target the plans effectively. Next, management plans addressing all human activities and threats, including strict measures, should be developed for all existing MPAs. In addressing fishing activities, these plans should include restrictions where needed, as well as better monitoring, control and surveillance of these activities, including recreational fisheries. The precautionary approach should be applied in all cases where a lack of information occurs.

Near the island Møn, Denmark, 2012.  
© OCEANA/ Carlos Minguell



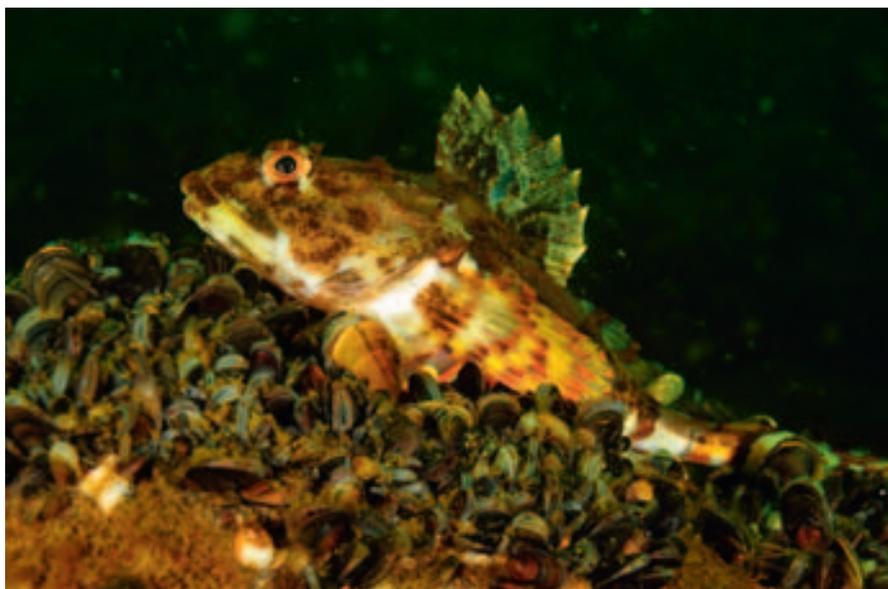
# Introduction



Threats to the marine environment are multiplying and their effects are often complex and overlapping (Halpern *et al.* 2008). An increasing demand for marine and benthic resources, and the rapidly improving technologies to address it, have, along with habitat degradation, pollution from nutrients and other hazardous substances, overfishing and the increasing impacts of climate change, contributed to the degradation or collapse of ecosystems in all major coastal and ocean regions of the world (Olsen *et al.* 2013, Wilkinson 2004, Hughes *et al.* 2005).

One of the most widely recognized and effective tools to address the many threats to marine and coastal ecosystems is a network of well-managed MPAs. Such a network, if it is well designed, can help curb the loss of marine resources and recover entire ecosystems by providing protection to and decreasing the loss of endangered marine species and habitats, and restoring depleted fish stocks (Olsen *et al.* 2013).

Spatial protection and management measures have quite a long history on land, but in marine areas these are relatively new concepts. The idea of conserving marine biodiversity with the use of management tools has its roots in the 1982 World Parks Congress in Bali, where it was recommended that the use of protected areas should be applied to the oceans, in addition to land (McNeely and Miller 1982). Since then, many international agreements have re-enforced the need for MPAs and MPA networks. In 2003, the 5th World Parks Congress called on the international community to create a global system of MPA networks that would greatly increase the coastal and marine area covered, and stipulated that these networks should seek to include strictly protected areas that amount to at least 20 to 30% of each habitat. In 2010, under the Convention on Biological Diversity (CBD), countries the ambitious *Aichi Biodiver-*



Shorthorn sculpin (*Myoxocephalus scorpius*) on blue mussels. Knolls Grund, Western Gotland Basin, Sweden, 2011.  
© OCEANA/ Carlos Minguell

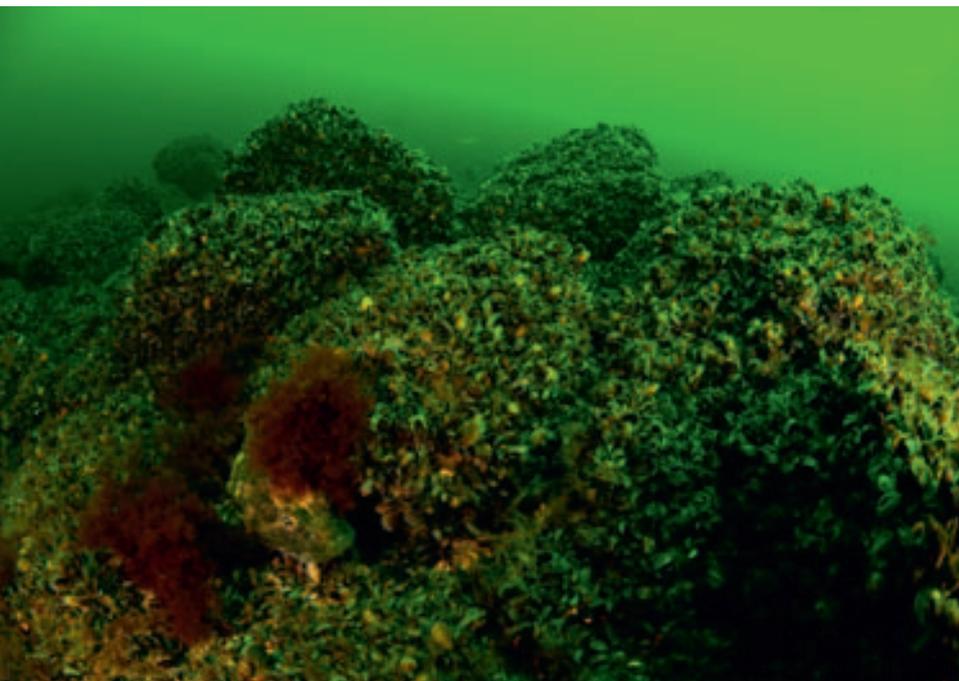
*sity Targets*, which included to protect at least 10% of the world's coastal and marine areas by 2020. Special attention were to be placed on areas of particular. These were to be conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider seascapes (Aichi targets).

MPAs provide a broad set of tools for protecting ecosystem biodiversity and managing marine resources. They can range from being no-take or no-entry areas to wide, multi-use areas integrating different management practices, and incorporating regulatory mechanisms that allow limited use of certain resources, like fishing. No-take areas, which ban all forms of extraction, in particular fishing, contribute significantly to the recovery and protection of marine species and habitats (Dayton *et al.* 2000; NRC 2000; Roberts *et al.* 2001; Russ and Alcala 2004). No-take areas also serve as benchmarks for assessing the status of the environment and success of management measures. Multiple-use MPAs may be made up of zones with different types of harvest rights (including recreation and research), as well as complete harvest prohibition areas (IUCN 2012).

With growing evidence of the importance of maintaining the resilience of ecosystems in order to better cope with large-scale changes, like climate change or natural disasters, well-connected networks of MPAs have become increasingly valuable. These so-called ecologically coherent networks of MPAs enhance the functionality of an individual area in a certain biogeographic region so that they operate in a synergistic manner on various spatial scales, and with a range of protection levels that are designed to meet the conservation objectives that a single reserve could not achieve alone. This kind of network can strengthen ecosystem resilience to maintain key functions and processes even when threatened or stressed by outside changes (Holling 1973). Besides being linked through biological levels, this type of coordinated network of MPAs should also be linked administratively, so as to have a consistent approach to design, financing, management and monitoring.

MPAs are not enough to solve the threats facing marine and coastal regions. Ideally, MPAs should be used in conjunction with other management tools, such as marine spatial planning or integrated coastal zone management.

Stones covered with blue mussels,  
Western Gotland Basin, Sweden. 2012.  
© OCEANA/ Carlos Suárez



MPAs should form the cornerstone of this planning as the benefits of well-designed and managed networks can also help the effectiveness of the management outside MPAs.

Ecosystem-based management should be the core of any management plan. MPA networks can only be effective if they are implemented within larger frameworks of ecosystem-based management, otherwise, they remain isolated entities of protection.

Finally, appropriate legislative and regulatory frameworks are fundamental to achieve effective MPA networks. Many countries have special legislation for establishing individual MPAs, along with a variety of authorities with marine responsibilities, but few have a strategic legislative framework or institutional arrangements for a representative MPA network. Responsibilities are often shared between different ministries and regional authorities, making the overall picture patchy. Poorly coordinated legal and institutional responsibilities can lead to problems such as competing mandates, overlaps, gaps and inefficiencies, all of which undermine the effectiveness of the network. A recent study highlights this, and concludes that, while the numbers of MPAs are “increasing rapidly” around the world, they need to be better managed if they are to successfully protect marine life (Edgar *et al.* 2014).

The focus needs to be on better MPA design, management and compliance to ensure that they serve the purpose they were established for in the first place and achieve their conservation targets.

In the marine realm, habitat and species distribution does not correspond to political or jurisdictional boundaries. Therefore, cooperative management among states, regions, nations and jurisdictions is essential.

This report provides an overview of MPAs and the quality of their management in the Baltic Sea and Kattegat, covering the EU's Natura 2000 sites, HELCOM Baltic Sea Protected Areas (BSPAs), and MPAs under national law. The status of MPA management plans, including possible fisheries measures, was reviewed to the extent that information was available. Data was collected using EU (Standard Data Forms, SDF) and HELCOM BSPA databases. Because some of these are not consistently updated and contain some outdated data that fails to reflect the most accurate situation, we also approached national authorities directly. Information was obtained from all countries except the Russian Federation. The European Environment Agency and European Commission Directorate-General for the Environment (DG ENVI) were consulted as well.

## European Union

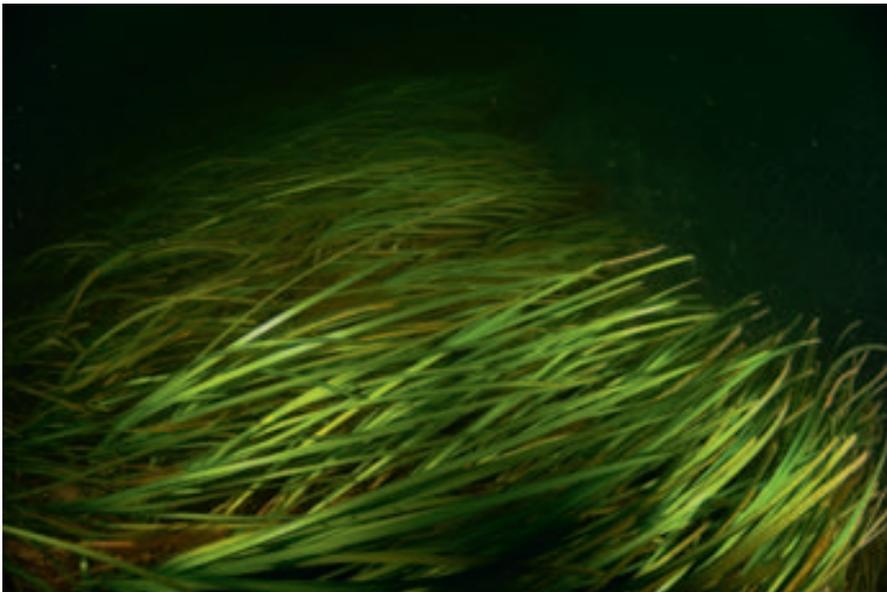
This section applies only to those Baltic Sea countries that are also EU Member States.

At the EU level, there are several directives that aim to protect and restore biodiversity and secure the sustainable use and proper management of ecosystem services. The main legal obligations concerning the protection of species and habitats in the EU are provided in the Habitats Directive (Council Directive 92/43/EEC) in the form of the Natura 2000 network. Article 6 of the Habitats Directive specifies management needs by stating that conservation measures can take at least two forms: 'appropriate statutory, administrative or contractual measures,' and 'if need be', 'appropriate management plans specifically designed for the sites or integrated into other development plans'. The main aim of these measures is to secure the favourable conservation status of those species

and habitats present in the site and listed in Annexes I and II. The overall effectiveness of management measures for Natura 2000 sites is evaluated in new, so-called biogeographic seminars, which aim to assist Member States in managing their Natura 2000 sites by sharing best practices and identifying common priorities. Launched by the European Commission in 2012, this initiative complements the latest reporting (2007-2012) on progress to implement the Directive and achieve favourable conservation status for listed habitats and species. While the first seminars covered terrestrial regions, there is growing interest to organize similar ones for marine sites.

To implement the commitments stemming from the CBD, the European Commission adopted a 2020 Biodiversity Strategy in 2011 (COM/2011/0244). The strategy provides a long-term vision (2050) and short-term target (2020). By 2020 the loss of biodiversity and degradation of ecosystem services should be halted, and by 2050 biodiversity and its ecosystem services should be protected and restored so that catastrophic changes caused by biodiversity loss are avoided. In particular, one of the targets states that by 2020, 100% more habitat assessments and 50% more species assessments under the Habitats Directive should show a favorable or improved conservation status compared to current assessments.

From a conservation, and consequently management, point of view, the most significant shortcoming of the Natura 2000 network is that it focuses only on a limited number of habitats and species listed in the Annexes of the directive, which dates back well over 20 years now. These lists disregard several important marine features, particularly those from benthic communities, such as eelgrass beds (*Zostera* sp.) and soft bottom communities, including *Modiolus*, that also need to be protected



Eelgrass (*Zostera marina*) meadow. Ammoniak Havn, Little Belt, Denmark. 2012. © OCEANA/ Carlos Minguell

and well-managed in order to secure healthy ecosystems and their functions.

The Marine Strategy Framework Directive (MSFD, Directive 2008/56/EC) on the other hand, is the first EU-wide instrument aimed specifically at protecting and preserving the marine environment as a whole, and the first attempt by the EU to implement ecosystem based management of all human activities in the marine environment. It obliges Member States to achieve *Good Environmental Status* (GES) in their waters by 2020 using an integrated approach to improve ecosystem functioning and balance human activities with their impacts. Good Environmental Status means that the overall state of the environment in marine waters provides ecologically diverse and dynamic oceans and seas which are healthy and productive. Use of the marine environment must be kept at a sustainable level that safeguards potential uses and activities by current and future generations. This means the structure, functions and processes of marine ecosystems have to be fully considered, marine species and habitats must be protected and human-induced declines in biodiversity must be halted and prevented. Therefore, the MSFD offers better possibilities to overcome the weakness of the Nature Directives

by requiring Member States to establish spatial protection measures of all kinds, and contributing to coherent and representative networks of MPAs pursuant to its Article 13. Member States thus now have a new opportunity to complement their Natura 2000 networks with additional “MSFD specific measures”, either through the designation of new MPAs for specific conservation purpose, or through the adoption of new management measures to reduce specific threats.

Fisheries are regulated under the Common Fisheries Policy (CFP), an exclusive competence of the EU, which means that fisheries restrictions in MPAs or any other conservation measures related to fishing requires a decision at the EU level (Article 11). But this new article also enables Member States or the EU Commission to overcome the limitations of the Habitats Directive by allowing them, in certain situations, to take appropriate fisheries measures in relation to MSFD objectives. Similarly, the possibility of establishing “fish stock recovery areas” was introduced in the reformed CFP under Article 8. According to this, the EU should endeavour to protect these areas due to their biological sensitivity, including areas where there is clear evidence of heavy concentrations of fish below minimum conservation reference size and of spawning grounds. In such areas, fisheries may be restricted or prohibited. As the reformed CFP was adopted in early 2014, there are no areas designated for such purpose yet. It remains to be seen whether Member States will choose to use this Regulation to manage not only fish stocks, but also larger areas, by banning certain fishing practices inside MPAs in favor of the entire ecosystem. Also, the European Environment Agency (EEA 2012) has emphasized that there is a need to establish management plans for MPAs and to have joint efforts on EU fisher-

ies issues, including on fisheries impact assessments. Reaching GES by 2020, which is only six years away, will require the full implementation of all existing agreements at the national, regional and global levels.

## Baltic Sea

The main regional body in the Baltic Sea is HELCOM, the Regional Sea Convention on the Protection of the Baltic Sea Marine Environment. HELCOM administrates a Baltic Sea wide network of MPAs, the Baltic Sea Protected Areas (BSPAs), gives management recommendations and produces status assessments. Most of the BSPAs are also Natura 2000 sites, and 64% of the Natura 2000 sites in the Baltic Sea and Kattegat are also nominated as BSPAs (HELCOM 2013a). Countries agree on measures and recommendations on a voluntary basis and agreements must be transformed into national legislation to be enforceable.

The original idea of the network was to provide protection to representative ecosystems of the Baltic Sea<sup>1</sup>. The recommendation also said that management plans should be established for each BSPA to ensure the protection of nature and the sustainable use of natural resources, and that these management plans should consider all possible negatively affecting activities. These commitments were reconfirmed by Ministers in 2007 (Baltic Sea Action Plan), 2010 (Moscow Ministerial Declaration) and 2013 (Copenhagen Ministerial Declaration). Despite these agreements, the overall tendency of the HELCOM countries that are also EU Member States, has been to follow the requirements of EU Nature Directives, which concentrate on the protection of very few marine features.

The current network of MPAs covers 11.7% of the Baltic Sea and the Kattegat, fulfilling the UN CBD 10% target (see Table 2), but is still not sufficient to reach HELCOM's goal of it being ecologically coherent. HELCOM has agreed to include more offshore areas into the network (HELCOM Ministerial Declaration 2010), but to date, the fraction of protected areas in Exclusive Economic Zones (EEZ) has not increased.

Though the countries have agreed under HELCOM on overall guidelines for the designation and management of these sites, in reality they are developing these independently, on a site-by-site basis. As previously mentioned, the ideal situation would be to develop MPA planning and management that goes hand in hand with other management tools, like marine spatial planning (MSP). MSP processes are only just beginning in many of these countries, while many MPAs and their corresponding management plans have been in place for years, which prevents these processes from being synchronized. MPAs should in fact be positioned as the cornerstones of these plans, which should also be evaluated and reviewed against ecosystem-based management principles and take into account the 'Good Environmental Status by 2020' objective. Without effective regional cooperation, Baltic Sea MPAs can only serve as isolated islets of protection without being able to effectively contribute to halting the overall degradation of this sea.

<sup>1</sup> Note to reader: HELCOM is just in the process of revising this Recommendation and the new recommendation should be accepted by the end of March 2014.

# Marine Protected Areas in the Baltic Sea



This chapter will present a summary of the Baltic Sea countries' number of designated MPAs, divided into Natura 2000 sites and BSPAs, as well as identify how many of these MPAs have management plans in place.

### Natura 2000 sites

The Natura 2000 network forms the backbone of marine protection in Baltic Sea EU Member States. The number of Natura 2000 sites with management plans varies a lot between the countries (Table 1), but overall, 69% have them, according to the EU Standard Data Forms. There is a huge difference in the content of the plans and they give only an overview description of the area, including habitat types, species, and possible threats, while mostly lacking real management measures, such as rules and restrictions. Fisheries measures are also generally lacking, though some countries, like Denmark are developing these types of rules and regulations for MPAs (see page 30).

### Baltic Sea Protected Areas (BSPAs)

The BSPA and Natura 2000 networks overlap in all EU member countries' waters. In total, BSPAs cover 64% of Natura 2000 sites (HELCOM 2013a). Today, 106 BSPAs (65% of the total) have a management plan in force, 42 (26%) sites have plans in preparation, and 15 lack any plan at all (Table 2). However, many of the old management plans cover only the terrestrial parts of the sites, thus dealing only with land-based activities, while those in marine areas remain largely unmanaged. Of the 106 BSPAs with a management plan in force, 72 cover both marine and terrestrial areas, while 30 are targeted specifically for marine areas. The number of BSPAs with management plans in force, as well as the coverage of the management plans varies between Contracting Parties. Denmark has the highest number of management plans in force (in total 62) (HELCOM 2013a).

**Table 1.** Overview of marine and coastal Natura 2000 sites per EU country in the Baltic Sea and Kattegat, as well as the number of sites with management plans, according to the Standard Data Forms. The Natura 2000 sites in the table are habitat- and/or bird-sites, covering marine areas (N2000 SDF; accessed on 10 February 2014 (take into account the number of N2000 sites is not definitive, as available information may change from the assessed date)).

Country	Number of Natura 2000 sites (includes Habitats and Bird Directives)	Number of Natura 2000 sites with management plans according to SDF
Denmark	63	59
Estonia	35	12
Finland	55	24
Germany	37	2
Latvia	7	2
Lithuania	5	1
Poland	17	0
Sweden	169	168
<b>Total</b>	<b>388</b>	<b>268</b>



Skerry near Hanko Peninsula, Finland, 2012. © OCEANA/ Carlos Minguell

HELCOM countries have reported that eutrophication, general pollution and commercial fishing pose the biggest existing threats to MPAs. While general pollution and eutrophication are difficult to handle with a single site management plan, there are many legal ways to enforce fishing restrictions inside MPAs. Nonetheless fisheries are among the least regulated activities in the management plans. Based on HELCOM data, commercial fishing is an existing threat in 78 of 163 BSPAs and a possible threat for 47 of 163 BSPAs, and yet only 53 describe any action concerning fishing in their management plans. Of these, 23 require a permit for fishing, 28 restrict it and only two forbid it. (HELCOM 2013a).

Denmark and Sweden have management plans in place for most of their BSPAs, and plans are under preparation for the remaining sites (Table 2). The Baltic States (Estonia, Latvia and Lithuania) still lack management plans for some of their BSPAs, but they are all under preparation with the exception of two Estonian BSPAs, for which no information is available online in the HELCOM database. Germany and Russia either have management plans in force or under preparation for all their BSPAs. Finland has management plans for half of their BSPAs, and seven are under preparation, leaving four sites without any. Poland is the only country without any management plans for BSPAs in force yet, but eight out of its nine sites have a plan under preparation.

**Table 2.** Overview of BSPAs per country, as well as the number of management plans in force and under preparation according to the HELCOM database. The last column indicates the percentage of how much the BSPAs cover of country's marine area. Made from HELCOM 2013a and BSPA database.

Country	Number of BSPA per country	Number of BSPA having a management plan in force	Management plan in preparation	BSPA area in total as fraction of a country's total marine area (%)
Denmark	66	62	4	23%
Estonia	7	4	1	17%
Finland	22	11	7	7%
Germany	12	2	10	36%
Latvia	7	2	5	15%
Lithuania	6	4	2	15%
Poland	9	0	8	25%
Russia	6	4	2	4%
Sweden	28	21	7	5%
<b>Total</b>	<b>163</b>	<b>106</b>	<b>46</b>	<b>11.7%</b>

## Review of management status by country

### FINLAND

With 80,771 km<sup>2</sup> of marine area, Finland covers the second largest portion of the Baltic Sea. Most of its marine area is coastal: 51,809 km<sup>2</sup> is in territorial waters (TW), and 28,962 km<sup>2</sup> in the EEZ.

#### Marine protected areas and their management status:

Most of the protected areas in Finland are included in the Natura 2000 network. Altogether there are 1,857 Finnish Natura 2000 sites, covering 5 million hectares, of which one fourth protect marine and freshwater areas. Finland has 55 strictly marine Natura 2000 areas, protecting mostly sandbanks and reefs, as well as grey seals (*Halichoerus grypus*). According to the information in EU Natura 2000 Standard Data Forms (N2000 SDF) only 24 of the 55 marine Natura 2000 sites have management plans (see Table 1).

22 MPAs are also classified as HELCOM BSPAs. Together, they cover 5,324 km<sup>2</sup>, which is equal to 7% of Finland's sea area. Finland does not have any Natura 2000 or BSPA sites located in its EEZ (HELCOM 2013a), making it one of the four countries in the Baltic Sea which totally lacks protection in offshore waters (see Figure 1), but there will be areas designated in the EEZ in the near future. Based on the information in the HELCOM database, eleven of the Finnish BSPAs have management plans, seven have plans under development, and four have none at all (Table 2). Some of these management plans cover only parts of the protected area. Eleven plans (either existing or under preparation) mention fisheries and require some kind of restrictions/permissions. Specific information on fisheries controls is mostly lacking. Only one plan (The Quark) specifies a reason for stated restrictions: fishing is restricted because of important spawning areas.

The management plans deal mostly with terrestrial construction, extraction of materials and dumping, as well as aquaculture (HELCOM database).

In addition to the aforementioned sites, Finland has one marine national park, established in 2011, which covers a number of Natura 2000 sites in the Bothnian Sea. This area is the largest marine protected area in Finland, covering 90,000 hectares of water and 1,542 hectares of skerries and islands. Due to objections from the local communities, many activities are still allowed inside the area, like fishing and hunting for seals and cormorants.

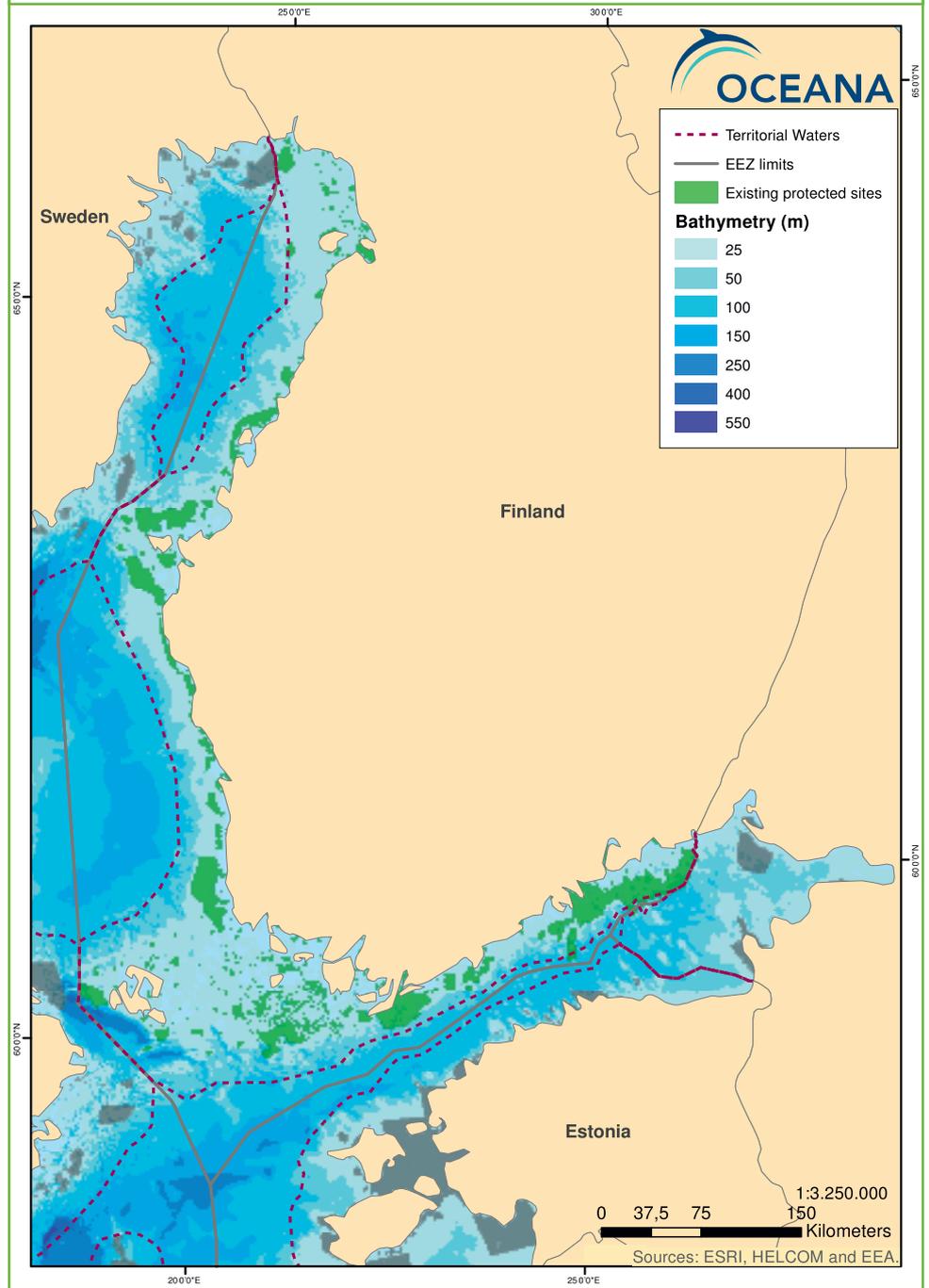
#### Governance and management of protected areas:

Management plans are defined in Finland's Nature Conservation Act. For national parks it is obligatory to develop a management plan, while for other areas they are developed as needed. Management plans for Natura 2000 sites are developed by respective regional authority, on government owned land and water this is Natural Heritage Service (Metsähallitus). Stakeholder consultation is part of the process and the Ministry of Environment approves the plans. If the protected area is on private land or water, management plans are done in cooperation with the land/water owners, the Centers for Economic Development, Transport and the Environment and the Natural Heritage Service.

Eelpout (*Zoarces viviparus*),  
Storsanden, Norrskär, Finland, 2013.  
© OCEANA/ Carlos Minguell



**Figure 1:** Overview of Finnish MPAs.



Grey seal (*Halichoerus grypus*) at an offshore skerry, Bogskär, Finland. 2012.  
© OCEANA/ Carlos Suárez

## ESTONIA

Estonia has a 36,320 km<sup>2</sup> marine area, most of which is coastal (24,728 km<sup>2</sup> in the territorial water), with 11,593 km<sup>2</sup> located in the EEZ (HELCOM 2013a).

### Marine protected areas and their management status:

Estonia has 35 marine and coastal Natura 2000 sites (Table 1). There is a predominance of MPAs in the western part of the country, where most of the coastal waters of the Hiiumaa, Saaremaa, Muhu and Vormsi islands are designated as protected areas (see Figure 2). All the Estonian Natura 2000 sites are coastal. Estonian Natura 2000 sites are mainly designated to protect sandbanks, shallow inlets and bays, reefs, as well as grey seals and ringed seals. Twelve out of 35 Estonian Natura 2000 sites have management plans (see also Table 1) (N2000 SDF).

Estonia also has seven BSPAs (Table 2, HELCOM database), which cover most of the country's Natura 2000 sites. Four of the seven have a management plan in force and one has a plan in preparation. No information is available in HELCOM's database for the remaining two. Estonia's BSPA sites cover 17% of their national waters, located in the coastal water. Estonia does not have any protected area in the EEZ (pers. comm. M. Kuris, Baltic Environmental Forum, Estonia) (HELCOM 2013a).

### Governance and management of protected areas:

The Estonian Ministry of the Environment manages nature protection, and until 2005, it was also responsible for all fisheries related issues. However, in 2005 the administration and governance was divided into two ministries: Environment and Agriculture. Unlike other Baltic Sea countries, Estonia's two ministries coherently manage fisheries, as both are represented in relevant fisheries bodies (LIFE Nature Project, 2009).

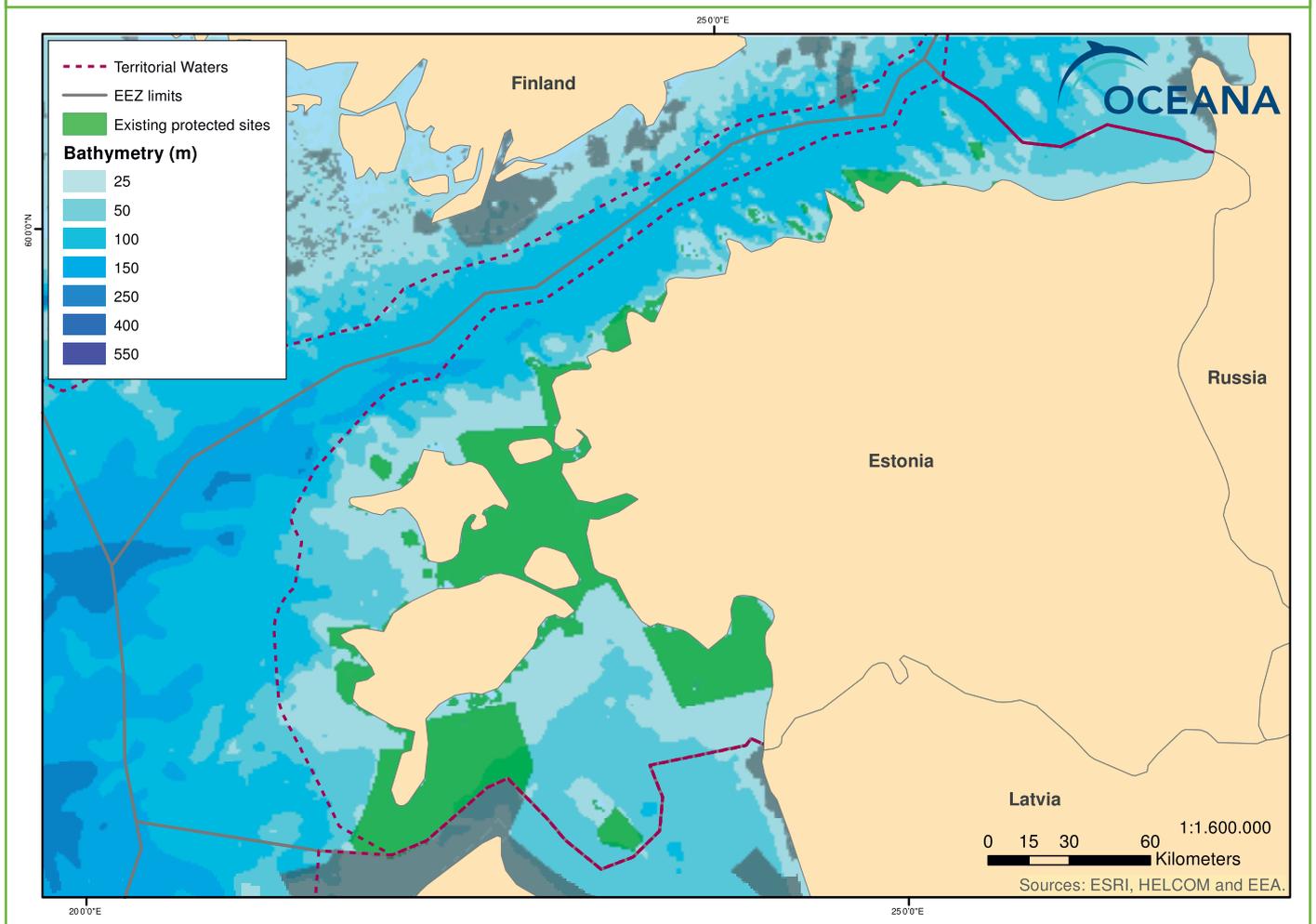
In Estonia, management plans include management activities and are the basis for financing those activities, but they are not legally binding. Instead, Estonia has “*protection rules*”, which are legally binding and can include different restrictions. All of the country's protected areas, with the exception of one area, operate under these protection rules. The protection rules include some general restrictions. If those general restrictions are found to be insufficient (e.g. in the course of development of the management plan for the site) then the proposal for changing the protection



Stone with barnacles and bluemuells, inside the MPA Hiiu Madala, in Estonia, 2011. © OCEANA/ Carlos Suárez

regime can be made. What this means, is that MPA management plans can only propose restrictions, but cannot ensure that they are implemented. Regarding fisheries measures, Estonia has some measures, such as temporal fishing restrictions for protecting whitefish spawning areas. Fishing restrictions, including requirements to use specific gear, are included in Estonia's Fishing Regulation (pers. comm. M. Kuris, Baltic Environmental Forum, Estonia).

**Figure 2:** Overview of Estonian MPAs.



## LATVIA

Latvia has 28,751 km<sup>2</sup> of marine area, more than half of which (16,126 km<sup>2</sup>) is in its EEZ, and the remaining 12,625 km<sup>2</sup> in territorial waters (HELCOM 2013a).

### Marine protected areas and their management status:

Latvia has seven marine Natura 2000 sites, designated to protect mainly reefs and water birds. Two of these have management plans; see Table 1 (Natura 2000 SDF).

Latvia also has seven BSPAs (all Natura 2000 sites as well), covering 4,364 km<sup>2</sup> of primarily coastal waters (only 166 km<sup>2</sup> are located in the EEZ). In June 2013, Latvia increased its BSPA coverage to 15% of its waters by designating relatively large new areas (see Figure 3). According to the HELCOM

database, management plans have been developed for two of seven MPAs (BSPAs), *Nida-Perkone* and the *West Coast of Riga Gulf* (Baltic Environmental Forum, Latvia, 2009b). No information is available in HELCOM's database about the state of management plans for the remaining five (see also Table 2).

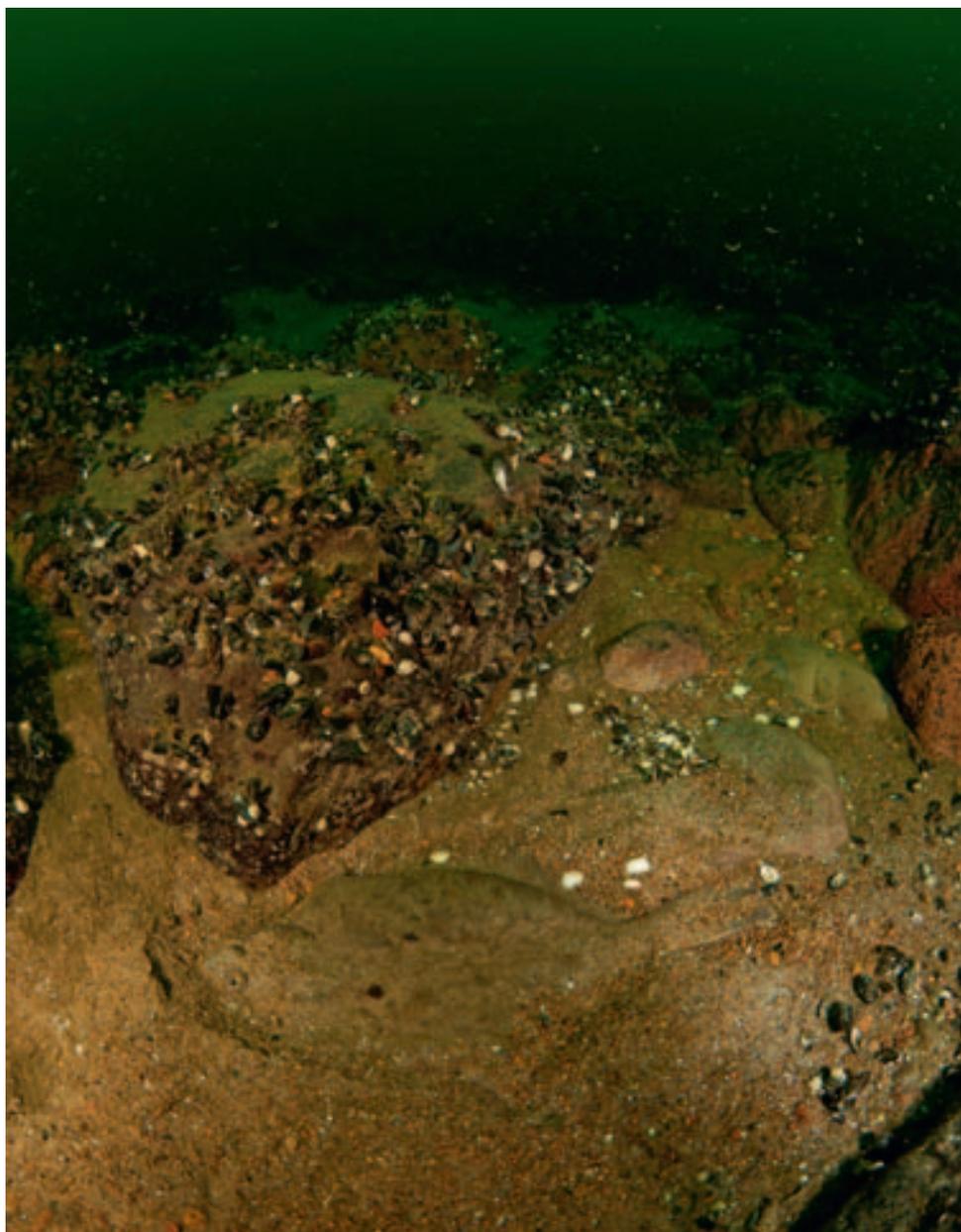
Besides Natura 2000 sites and BSPAs, other types of protected areas exist in Latvia, including national parks, nature reserves, nature parks, restricted areas and protected maritime territories (EUROPARC). Latvia mainly protects its coastal areas, as only one MPA, the Irbe Strait covers EEZ waters (see Figure 3). Irbe Strait, which is also a Natura 2000 site (SPA), has individual protection rules (Latvian rule, 2011), which for instance indicate that wind

power plant installations are not allowed (pers. comm. I. Ozolina, Ministry of the Environment Protection and Regional Development, Nature Protection Department).

#### Governance and management of protected areas:

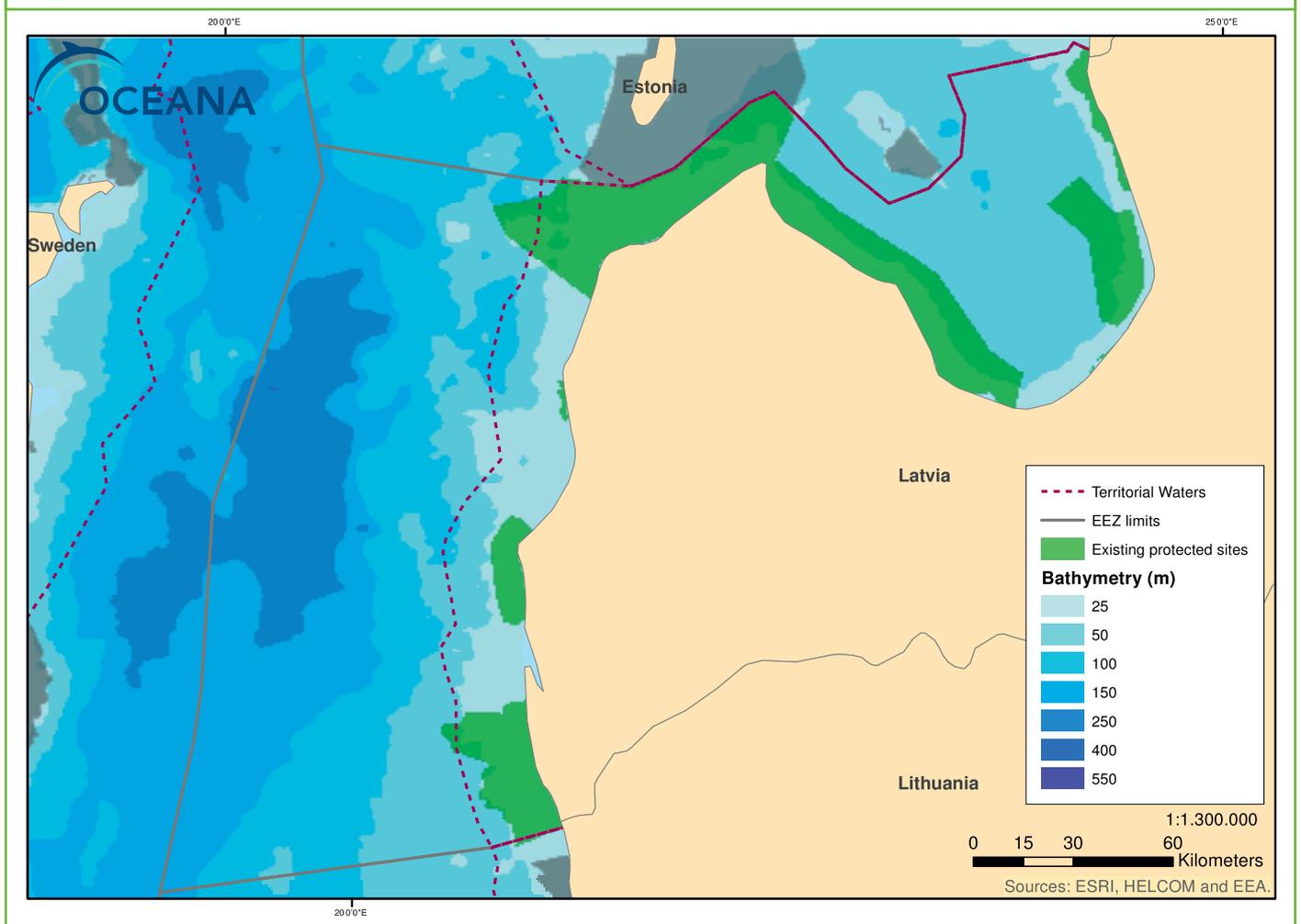
Latvia has a long tradition of nature conservation that dates back to the 1900s. Since 2009, the Latvian Nature Conservation Agency has been responsible for all protected areas and for nature conservation policy. The Ministry of Agriculture is responsible for all fisheries issues (LIFE Nature Project, 2009). Management plans are usually followed by individual regulations set by the Cab-

inet of Ministers to protect and manage the site. For one area, the Irbe Strait, regulations were issued without a management plan, as it is an important shipping area. According to the Baltic Environmental Forum, no MPAs have been specially designated for the protection of fish and there are no specific fisheries management measures or regulations in any of them. For the two management plans that are in place however, recommendations are in place to ensure the registration of bird and seal by-catch within MPAs, as well as to develop an early warning system when seabirds are expected in large numbers (pers. comm. E. Bojars, Baltic Environmental Forum, Latvia).



Seabed with a flatfish and a rock with blue mussels and barnacles, Latvia, 2011.  
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**Figure 3:** Overview of Latvian MPAs.



## LITHUANIA

Of the Baltic Sea countries, Lithuania has the smallest marine area, which is made up of 6,512 km<sup>2</sup>. Territorial waters account for 2,274 km<sup>2</sup> and the remaining 4,238 km<sup>2</sup> fall in the EEZ.

### Marine protected areas and their management status:

Lithuania has five Natura 2000 sites, which protect mainly reefs, estuaries, and birds. Of these, only one has a management plan in place (see Table 1) (N2000 SDF).

Lithuania also has six BSPAs. Four of these have a management plan, and the remaining two have plans under preparation. The six BSPAs cover 1,005 km<sup>2</sup>, equivalent to around 15% of Lithuanian waters (Table 2). None of its EEZ

is currently protected (see Figure 4) (HELCOM 2013a).

Besides Natura 2000 sites and BSPAs, Lithuania also has other kinds of MPAs, which partly overlap with them, including a national park (*Curonian Spit National Park*), regional parks (*Nemunas Delta Regional Park*, and *Pajūris Regional Park*), and one marine reserve (*Baltic Sea Talasologic Reserve*) and two biosphere polygons (*Kuršių Marios Biosphere Polygon*, and *Baltic Sea Biosphere Polygon*). Four MPAs have management plans and two plans are not approved yet (pers. comm. D. Čebatariūnaitė, The State service of Protected Areas under the Ministry of Environment, Lithuania).

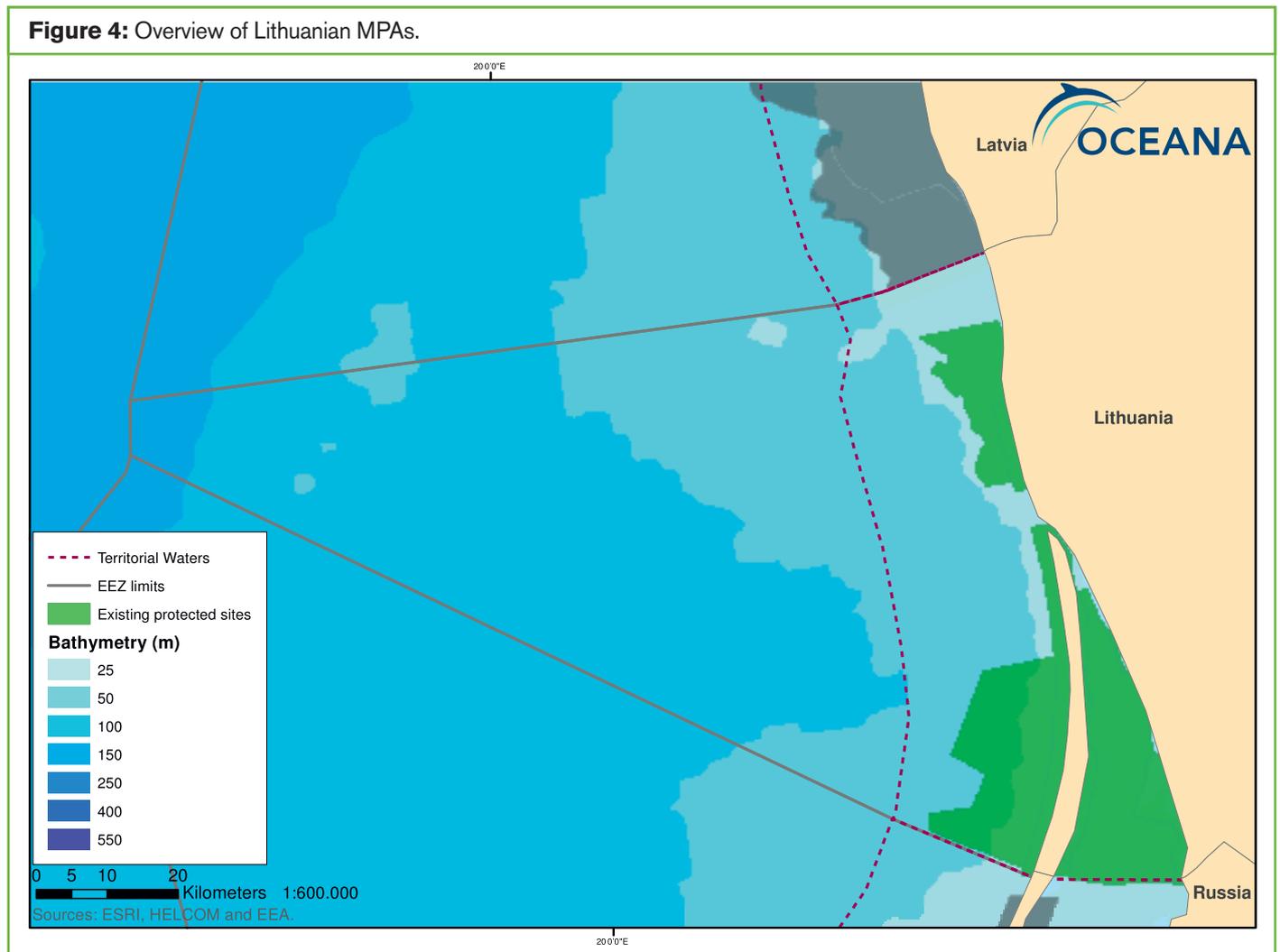
Governance and management of protected areas:

Nature conservation in Lithuania's dates back more than half a century, with the first law on Nature Conservation established in 1959. With the independence of Lithuania in 1990, a network of national parks was designed and completed with regional parks and state reserves. Since joining the EU, its main tool to designate and manage MPAs has been the Natura 2000 network. The Ministry for Environment is responsible for the protection of the environment, but fisheries management is divided between the Ministries of Agriculture and Environment. The Ministry

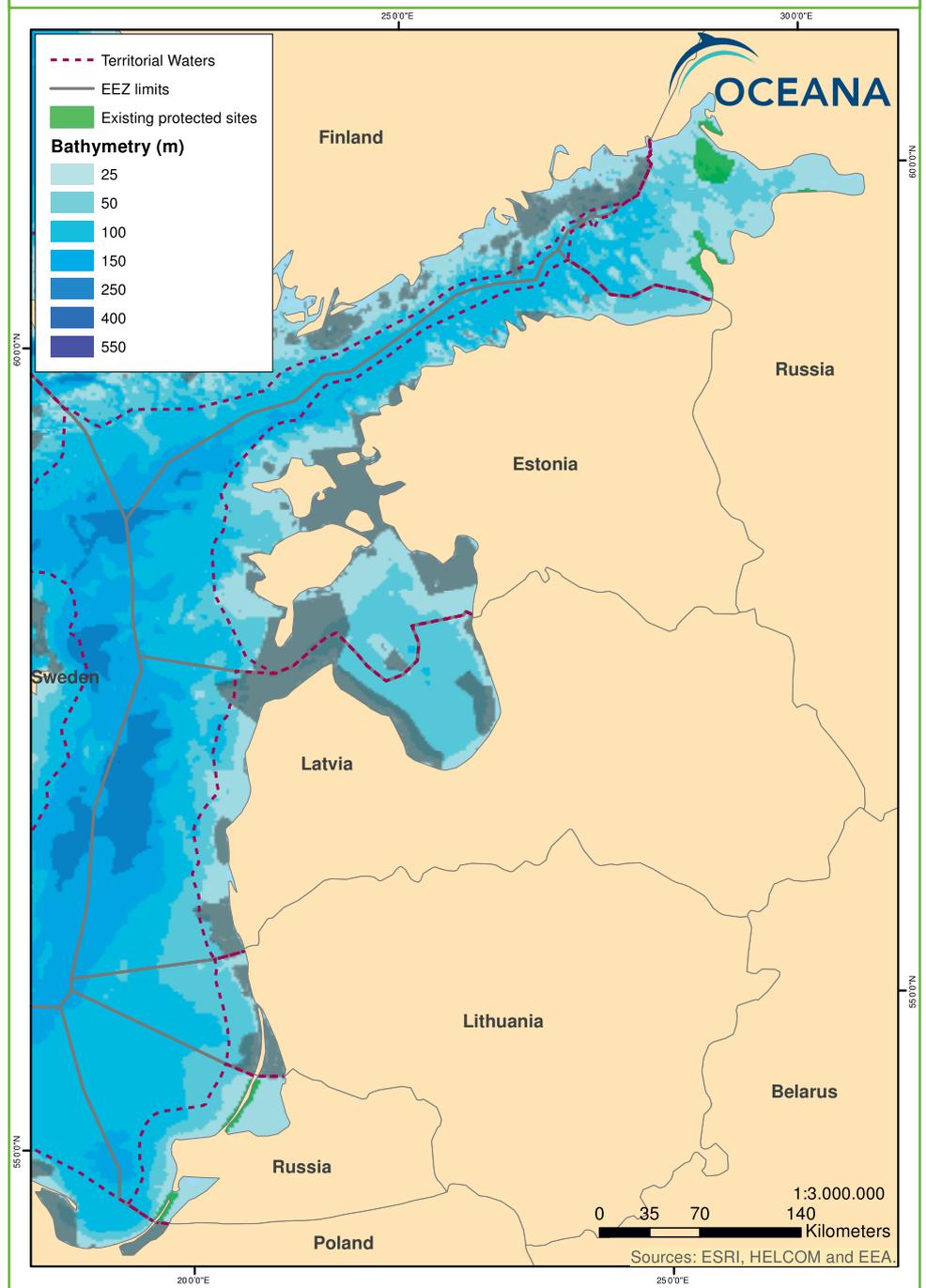
of Environment develops regulations for commercial and recreational fisheries, but the Ministry of Agriculture is in charge of enforcing them (LIFE Nature Project, 2009).

Fishing in MPAs is allowed, albeit with some restrictions and limitations. In the management plans some conservation measures are proposed, such as reducing by-catch (seasonal restrictions and requirements for mesh size of gill nets), and promoting alternative fishing methods instead of traditional fishing gears (pers. comm. D. Čebatariūnaitė, the State service of Protected Areas under the Ministry of Environment, Lithuania).

**Figure 4:** Overview of Lithuanian MPAs.



**Figure 5:** Overview of Russian MPAs.



## RUSSIA

Russian waters cover two distinct areas in the Baltic Sea; the Gulf of Finland and Kaliningrad region located in the Eastern Baltic Proper. In total these two areas cover 23,902 km<sup>2</sup> of the Baltic Sea, with 16,533 km<sup>2</sup> falling in territorial waters and 7,369 km<sup>2</sup> in the EEZ.

### Marine protected areas and their management status:

Six BSPAs exist in Russia, covering 4% of its marine area in total (“see Fig-

ure 5”). Four have management plans, and those for the remaining two are under preparation (HELCOM database) (see Table 2). All six sites are located in territorial waters, leaving the offshore waters in the EEZ completely unprotected. New Russian BSPAs in the Gulf of Finland were reported in the latest HELCOM publication on MPAs (HELCOM 2013a).

### Governance and management of protected areas:

The Ministry of Natural Resources and Environment of the Russian Federation is responsible for protected areas and conservation. The Russian Federal Fisheries Agency, which since 2012 has been under the guidance of the Ministry of Agriculture, is responsible for fisheries and the management of these areas (Federal Fisheries Agency of Russia).

## POLAND

The marine area of Poland covers 29,570 km<sup>2</sup>, most of which is offshore (19,494 km<sup>2</sup> in EEZ), with the remaining 10,076 km<sup>2</sup> in territorial waters.

### Marine protected areas and their management status:

The marine Natura 2000 network in Poland consists of 17 sites, covering around one fifth of Polish waters (Table 1). There are also two national parks and two landscape parks covering marine areas, which mostly overlap with existing Natura 2000 areas and are also designated as BSPAs.

After Denmark and Sweden, Poland has the largest total area of BSPAs, having protected 7,361 km<sup>2</sup> or 25% of its waters under this framework (see Figure 6) (HELCOM 2013a). Nine MPAs, which cover both territorial and EEZ waters, have been classified as BSPAs. None have management plans in force yet, but eight are being prepared. No information about the management status of the final BSPA is available in the HELCOM database (Table 2) (HELCOM 2013a).

### Governance and management of protected areas:

The authorities responsible for the Natura 2000 network management in Poland are the General Directorate for Environmental Protection (GDEP) and on the local level, the Regional Directorates for Environmental Protection.

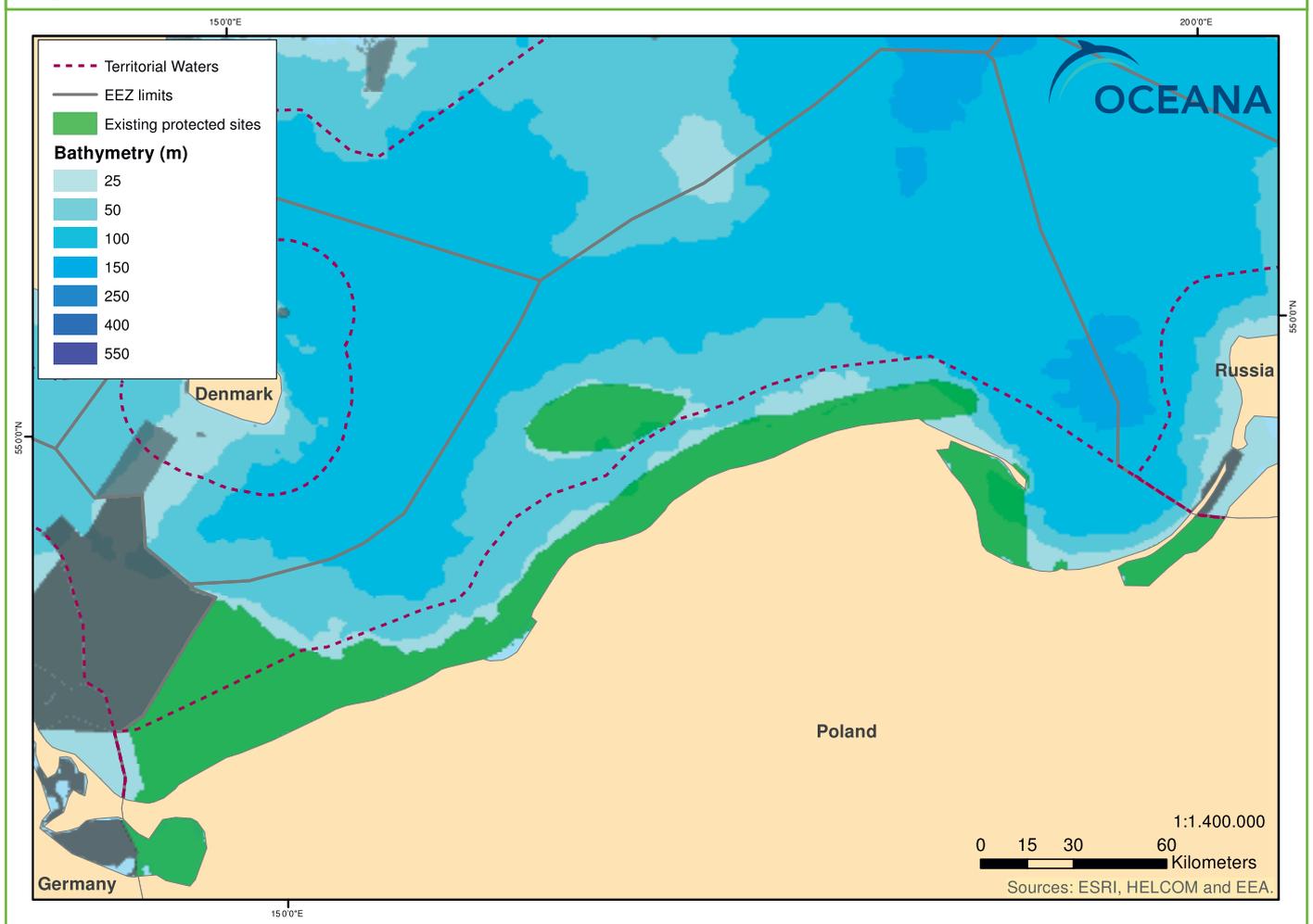
The General Directorate maintains all the information of Natura 2000 sites, including updating SDFs and reporting those to the European Commission, while the regional directorates handle managing Natura 2000 sites within their areas of responsibility and act as supervisors for the majority of them.

The Maritime Office (MO) is a government agency responsible for the management and administration of offshore areas, including the creation, management, and monitoring of marine Natura 2000 sites, and the development of management plans (called 'protection plans'). There are three MOs in Poland (one located in Szczecin, one in Słupsk and one in Gdynia), and each is responsible for the management of the Natura 2000 sites located in the area it is responsible for. While no management plan is yet in place for these sites (Table 1), plans for several of the areas (mainly on the western and eastern coasts) are currently in a late drafting stage, undergoing final consultations and should be presented for review to the GDEP and the Ministry of Environment later this year. Once developed, they will be implemented through a Ministry of the Environment regulation, and will stay in place for 20 years, but be revised after six.

Sand bottom in Poland, 2011.  
© OCEANA/ Carlos Suárez



**Figure 6:** Overview of Polish MPAs.



## GERMANY

Germany's marine area of 15,335 km<sup>2</sup> is the second smallest in the Baltic Sea. Its coastal waters cover 10,806 km<sup>2</sup> and the remaining 4,529 km<sup>2</sup> lie within the EEZ (HELCOM 2013a).

### Marine protected areas and their management status:

Germany has 37 Natura 2000 sites, six of which include offshore areas in the EEZ (Table 1). There are no management plans for the sites in the EEZ (which are also BSPAs), but they are under development (pers. comm. D. Boedeker, German Federal Agency for Nature Conservation).

In total, Germany has 15 BSPAs, and some include more than one Natura 2000 site. In total they cover 5,526 km<sup>2</sup>, which is equal to 36% of Germany's

Baltic Sea area (see Figure 7) (HELCOM 2013a). Two of the 15, which are also national parks, have management plans. They will be reviewed in the section below. According to the HELCOM database, management plans for 10 BSPAs are currently being prepared (HELCOM database) (Table 2).

### Governance and management of protected areas:

Germany's marine waters are managed by different authorities. In the EEZ, nature conservation is taken care of by the German Federal Agency for Nature Conservation and the Federal Ministry for the Environment, Nature Conservation, Building, and Nuclear Safety. Meanwhile, German Baltic Sea state authorities, namely Schleswig-Holstein and Mecklenburg-Vorpommern

(Mecklenburg-Western Pomerania) are responsible for conservation in the territorial seas and inner waters of their respective regions. In Germany, management plans flesh out and implement existing ordinances for sites, but are only guidance documents to explain provisions and measures in detail. Currently, only two regulations exist for two Natura 2000 sites (SPAs) in the EEZ; one in the North Sea and one in the Baltic Sea. For all MPAs in the German EEZ designated under the Habitats Directive specific ordinances and management plans are still under development. (pers. comm. J. Krause, Federal Agency for Nature Conservation, Germany). However, technical proposals for specific fisheries measures for Natura 2000 sites in the German EEZ have been developed (EMPAS 2009; Anker Pedersen *et al.* 2009).

The state Schleswig-Holstein is in the process of establishing management plans for its MPAs (pers. comm. C. Wenzel, Ministry for Energy, Agriculture, the Environment and Rural Areas of the state of Schleswig-Holstein). Currently, legally non-binding management plans have been finalized for some terrestrial Natura 2000 sites, which also cover minor marine areas. Several fisheries regulations for territorial waters exist, including the state law for fisheries (“Landesfischereigesetz”; German rule 2014) and the coastal fisheries order (“Küstenfischereiverordnung”; German rule 2008). These include regulations on the prohibition of trawl fisheries (exceptions are granted), industrial fisheries, drift nets, as well as gillnets closer than 200 meters from the coast. Regarding fisheries management measures in MPAs, Schleswig-Holstein has finalized a voluntary agreement aimed at reducing the by-catch of marine mammals and birds in gillnet fisheries. This agreement was signed in December 2013 by two regional commercial fisheries organisations and the State Ministry for Energy, Agriculture,

Environment and Rural Areas, is based on voluntary actions by the fishermen. As this agreement is relatively new, its effectiveness remains to be seen.

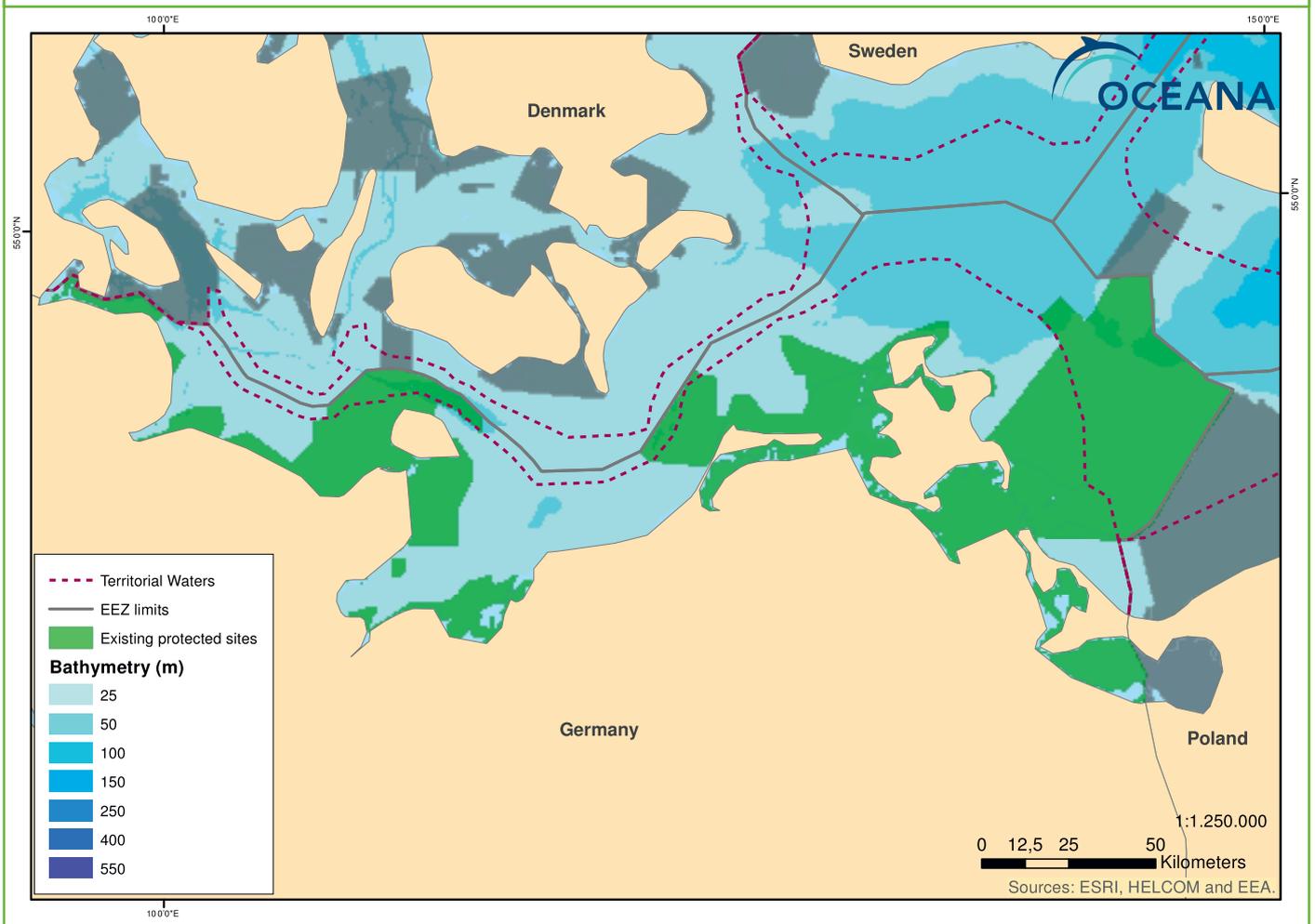
According to the authority for Mecklenburg-Vorpommern, one Natura 2000 site (*Greifswald lagoon* and *Strelasund*) in the region has a management plan in force (pers. comm. C. Herrmann, Agency for Environment, Nature Conservation and Geology). Management plans are currently under preparation for two other Natura 2000 sites (*Wismar Bight* and *Recknitz Estuary*). There are no existing fisheries regulations, but by-catch might be addressed for the *Wismar Bight* SPA.

The marine and coastal Natura 2000 sites of Mecklenburg-Vorpommern include two national parks: *Vorpommern Lagoon Area* and *Jasmund*, the first of which covers several Natura 2000 sites. Both have management plans in place, however without regulating marine issues in detail, i.e. fisheries (pers. comm. C. Herrmann, Agency for Environment, Nature Conservation and Geology).

Blue mussels (*Mytilus* sp.), Germany, 2012. © OCEANA/ Carlos Minguell



**Figure 7:** Overview of German MPAs in the Baltic Sea.



## SWEDEN

Sweden has by far the largest marine area in the Baltic Sea, with 147,407 km<sup>2</sup> covering the Kattegat, the Baltic Proper and the Gulf of Bothnia. Slightly more than half of the marine area is territorial water (76,055 km<sup>2</sup>), leaving 71,352 km<sup>2</sup> in the EEZ (HELCOM 2013a).

### Marine protected areas and their management status:

Sweden has several kinds of MPAs besides Natura 2000 sites and BSPAs, including animal sanctuaries, marine nature reserves, a national park (*Kosterhavet* in Skagerrak), and RAMSAR sites, which often overlap with Natura 2000 and BSPA areas. In total, it has 177 MPAs located in the Baltic Sea and Kattegat. Of these, 169 are classified as Natura 2000 sites, and all but one have manage-

ment plans (N2000 SDF) (Table 1). Sweden has mainly protected coastal waters, as only six of its Natura 2000 sites cover areas offshore (see Figure 8). Three of these six sites are entirely situated in the EEZ (respectively *Finngrundet-Östra banken*, *Norra Midsjöbanken*, and *Stora Middelgrund och Röde bank*).

In total, 28 areas are classified as HELCOM BSPAs, which amount to 5% of Sweden's waters. Most of the BSPAs represent single Natura 2000 sites, but some combine several Natura 2000 sites into a larger protected area. Twenty-one of the 28 BSPAs are managed, according to HELCOM, and management plans for the rest are in preparation (HELCOM 2013a; HELCOM database) (Table 2).

Governance and management of protected areas:

Sweden has a unique way of managing MPAs: instead of a national protection agency being in charge of managing MPAs, the responsibility falls on the counties, not only to manage them, but to propose conservation measures. Fisheries measures in the EEZ are subject to the CFP and can be adopted through “joint recommendations” from Member States with an interest

in the fisheries in the area (pers. comm. L. Tingström, SwAM).

Management plans for Sweden’s Natura 2000 sites are called conservation plans, and they give an overview of the site, and include information about EU code, a description of the area, habitats and species, threats, its conservation status, and further actions. According to the EU Natura 2000 Standard Data Form, all Swedish Natura 2000 sites



Reef structure with macro algae and starfish (*Asterias rubens*), northern Kattegat, Sweden, 2012.  
© OCEANA/ Carlos Minguell

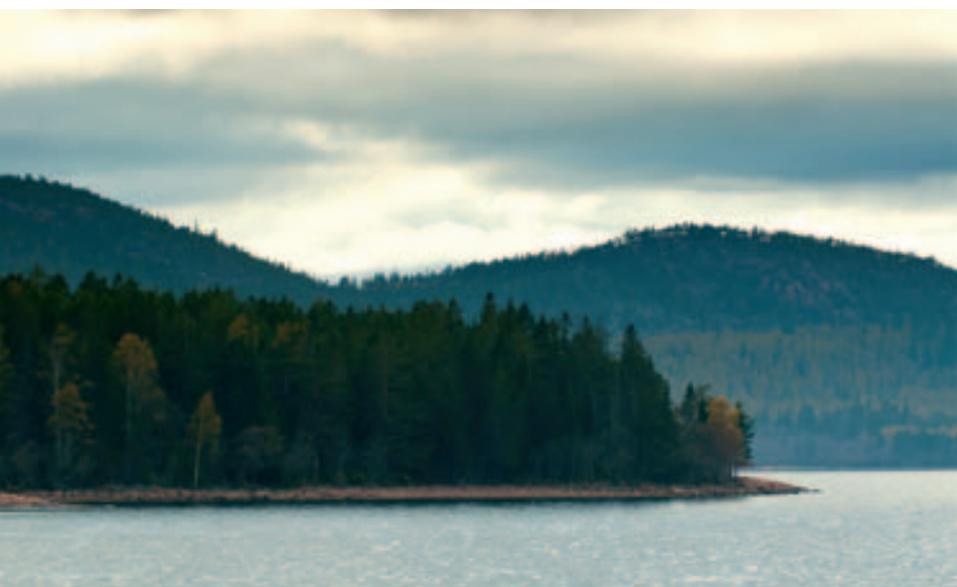
have management plans, nevertheless, a few cannot be found online. These include *Finngrundet-Östra banken*, *Norra Midsjöbanken*, *Stora Middelgrund och Röde bank* and *Morups bank*, which are also BSPAs. According to HELCOM however, management plans are being prepared for them, which is corroborated by information from SwAM. This indicates that while seven<sup>2</sup> of Sweden's Natura 2000 sites (including Skagerrak) lack conservation plans, at least four are in preparation (pers. comm. L. Tingström, SwAM).

Fisheries are often mentioned as a threat in these plans, which cover damaging gear, including bottom trawling, which damages the seafloor, and non-selective fishing gear, which causes the by-catch of seals, birds or harbour porpoises. However, no fisheries measures exist in these plans as fisheries are regulated separately, through national fisheries legislation. As some Natura 2000 sites (at least 22) overlap with areas affected by fisheries regulations, some restrictions do apply to them, including for example, seasonal closures. Sweden is in the process of identifying needed measures in order to achieve conservation targets of marine protected areas. Special attention will

be put in identifying fisheries practices that are contradicting conservation objectives (pers. comm. L. Tingström, SwAM). According to a new proposal by the Swedish government (Regeringens proposition 2013/14: 186), the government will in the future be able to impose restrictions (including fisheries restrictions) for marine protected areas. This is a significant change compared to the earlier approach in which counties were the principle authority to impose restrictions.

The MPAs in the Sound (Natura 2000 sites and the small coastal MPAs *Knähaken* and *Grollegrund*) are automatically covered by the trawling ban (see Box 1), which is one of the major reasons why the area still boasts rare habitats and species, such as the *Haploops*- and *Modiolus*-communities (Oceana 2014). In the Kattegat, a couple of Swedish Natura 2000 sites overlap with closure zones<sup>3</sup>: *Stora Middelgrund och Röde bank*, which is partly covered by temporary and permanent closure areas, and *Morups bank*, which is completely covered by a temporary closure area. In the Baltic Proper, the *Hoburgs bank*, a Natura 2000 site, covers a relatively large area that is subject to fishing regulations including a trawling ban, and a gillnet fisheries ban between 15 October and 15 May. Also situated in the Baltic Proper is the *Åsvikelandet-Kvädö* site, which has fishing measures that include a prohibition in a part of the area called *Licknevarpeffjärden* (Länsstyrelsen Östergötland website). *Askö*, another Natura site in the Baltic Proper, has a trawling ban applied to parts of its area. Some sites are seasonally closed to access, due to breeding birds and/or grey seals. *Fjärdlång* is an example of this type of area, and is closed for access between 1/2 and 15/8 to protect breeding birds (N2000 SDF).

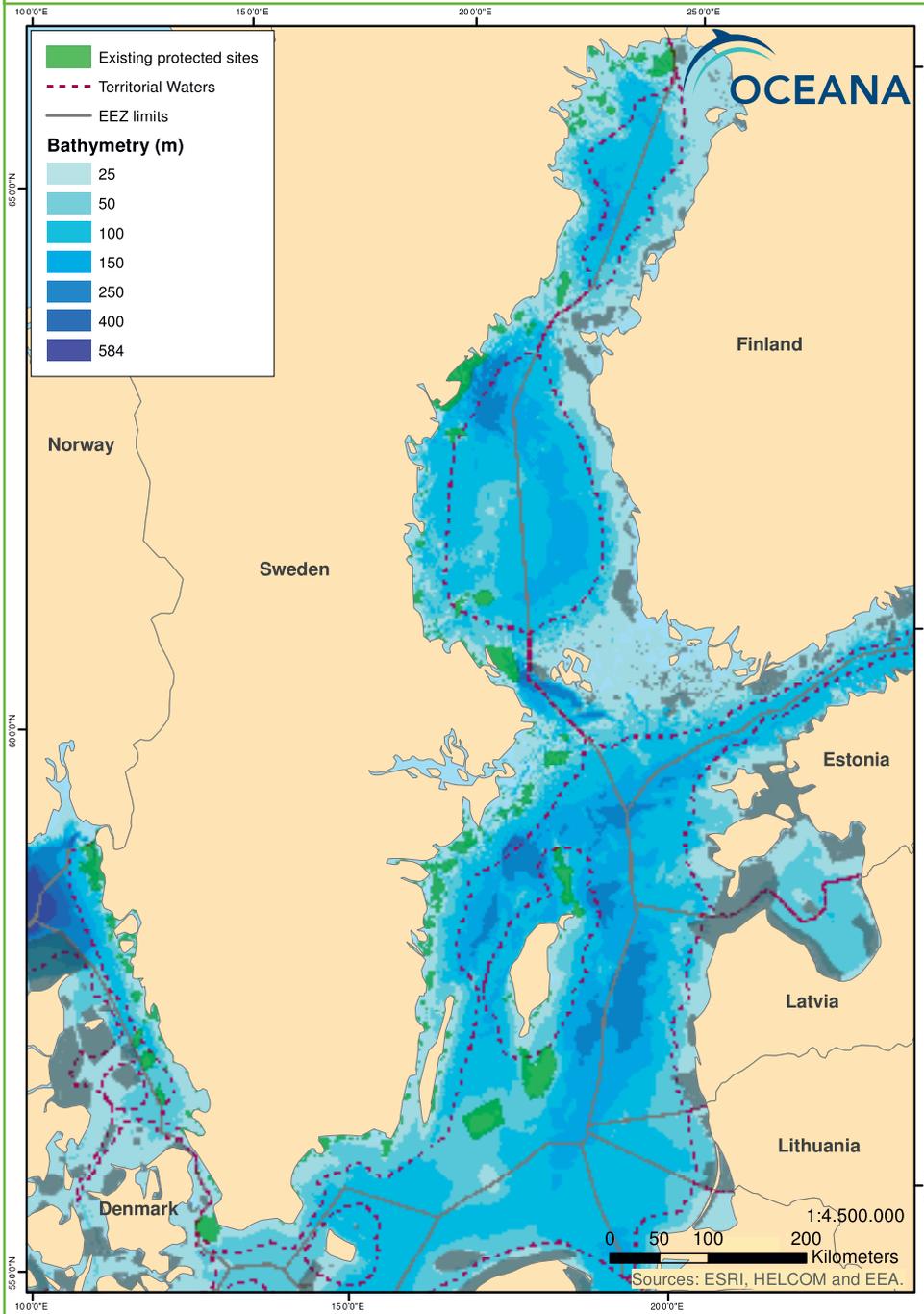
Scenery from a protected area (BSPA) in the Bothnian Sea, Sweden, 2012.  
© OCEANA/ Carlos Suárez



<sup>2</sup> The seven Natura 2000 sites are: Bratten, Finngrundet Norra Banken, Finngrundet Östra Banken, Finngrundet Västra Banken, Norra Midsjöbanken, Söderfladen and Villinge Boskapsö.

<sup>3</sup> The closed zones are areas in Kattegat, where fisheries are restricted, in order to restore the cod stock.

**Figure 8:** Overview of Swedish MPAs. Swedish MPAs in the Skagerrak are also included, but the report only covers Swedish waters in the Kattegat and the Baltic Sea.



Common sunstar (*Crossaster papposus*).  
Dörjeskär, Sweden. 2013.  
© OCEANA/ Carlos Minguell

## DENMARK

Denmark has the third largest marine area in the Baltic Sea (when the Kattegat is included in the math), covering 45,378 km<sup>2</sup>, which is slightly larger than the country itself. Its territorial waters account for 32,280 km<sup>2</sup>, while the remaining 13,098 km<sup>2</sup> fall in the EEZ (HELCOM 2013a).

### Marine protected areas and their management status:

Denmark protects a relatively large percentage of its waters: 17.7% as Natura 2000 (including the North Sea and the Skagerrak). Natura 2000 is the main form of protection, with 63 sites in inner waters (the Kattegat, the Belts and the Baltic Sea) (see Figure 9). Of these, seven are located in both coastal and offshore waters, and two, both located in the Kattegat, are entirely in the EEZ (*Store Middelgrund* and *Tims Top og den Kinesiske Mur*). Of all the Natura 2000 sites, 59 have management plans in place (Table 1).

According to the HELCOM database, Denmark has 66 BSPAs, which cover in total 10,411 km<sup>2</sup>, equal to 23% of its waters. Of these, 62 have management

plans, and the remaining four have plans in preparation (HELCOM database; HELCOM 2013a) (Table 2).

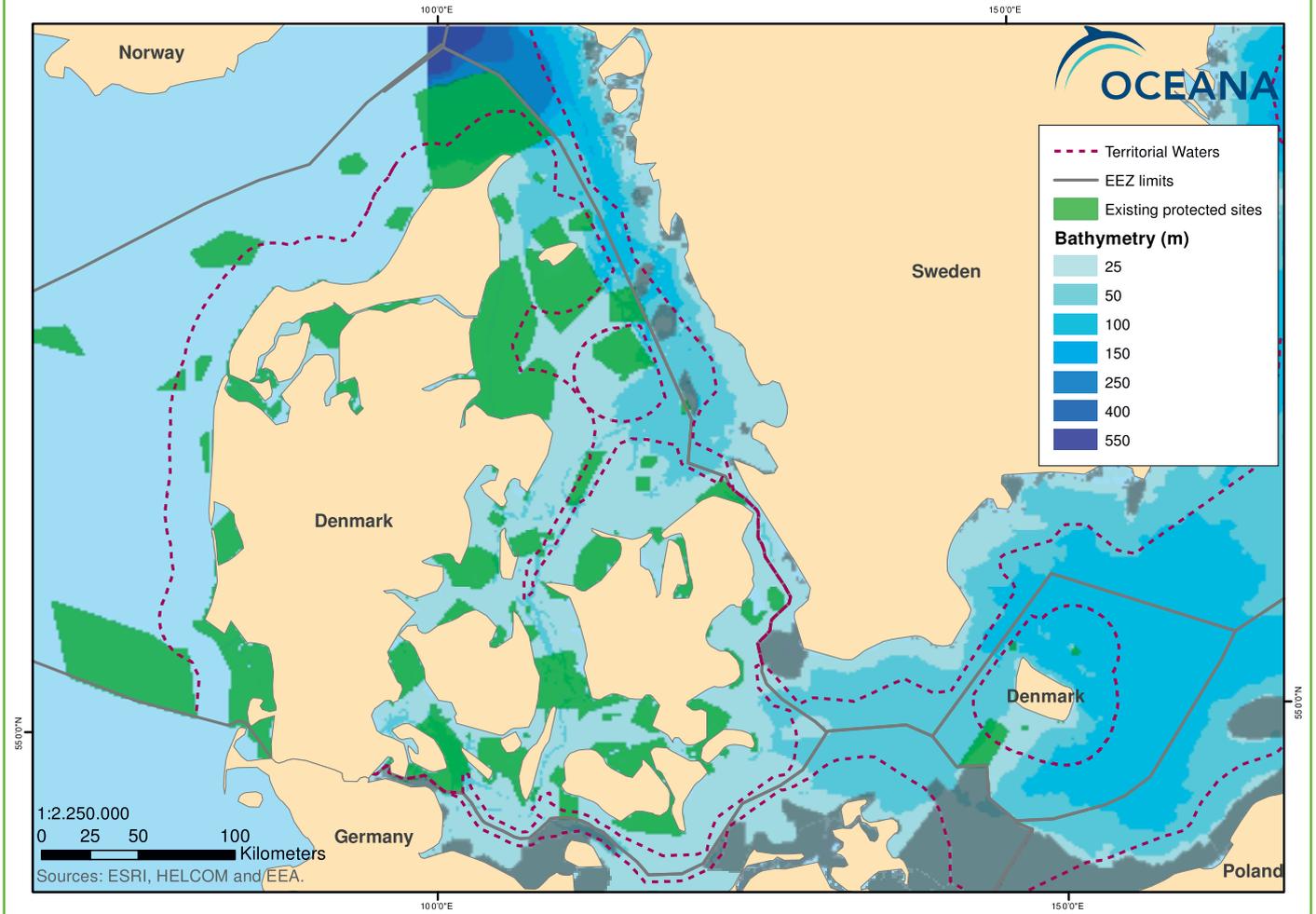
### Governance and management of protected areas:

The Danish Nature Agency, under the Environmental Ministry, is responsible for designating new Natura 2000 areas, as well as mapping the existing ones. The AgriFish Agency, under the Ministry for Food, Agriculture and Fisheries, is responsible for making fisheries regulations for the Natura 2000 areas. Most have a management plan, which is called a “Natura 2000 plan”. This plan includes information about fisheries activities inside the area, such as maps showing where net and trawl fisheries take place. Actual fisheries measures are not provided in these plans, but the Ministry for Food, Agriculture and Fisheries is working on developing some measures for certain sites (see below). In September 2013, a new fishing regulation for four Natura 2000 sites was released (see more in the section: “The Danish Example of Improved MPA Management”). In 2014, the plan is to increase the number of Natura 2000 sites managed with fishing regulations.

Green crab (*Carcinus maenas*) among algae. Æbelø, Little Belt, Denmark. 2013.  
© OCEANA/ Carlos Minguell



**Figure 9:** Overview of Danish MPAs. The map also includes MPAs in Skagerrak and parts of the North Sea. The report, however, only covers MPAs in the Kattegat, the Belts and the Baltic Sea.



# The Danish example of improved MPA management



Plumose anemone (*Metridium senile*) at a bubbling reef, Hirsholmene, Kattegat, Denmark. 2011.  
© OCEANA/ Carlos Minguell

While proper management measures are generally lacking for most of the MPAs in the Baltic Sea, some countries are starting to improve the management and control of human activities inside them.

The Danish AgriFish Agency, recently decided to enforce fishing measures in four selected Natura 2000 sites to protect reefs (see Figure 10). On September 1<sup>st</sup>, 2013 a trawling ban was put in place covering any area within a 240 meter boundary around reefs. Two of the sites (*Langeland & Bøchers Grund*) are completely covered by the ban as the protected areas' boundaries fall entirely within the limits. Despite the fact that the 240 meter limit is small, this is a step in the right direction to achieve proper management. Denmark aims to apply this ban to all its Natura 2000 sites which have either reefs or bubbling reefs as their designation basis.

Regardless of these good developments, Oceana has some concerns on how the ban has been applied. For in-

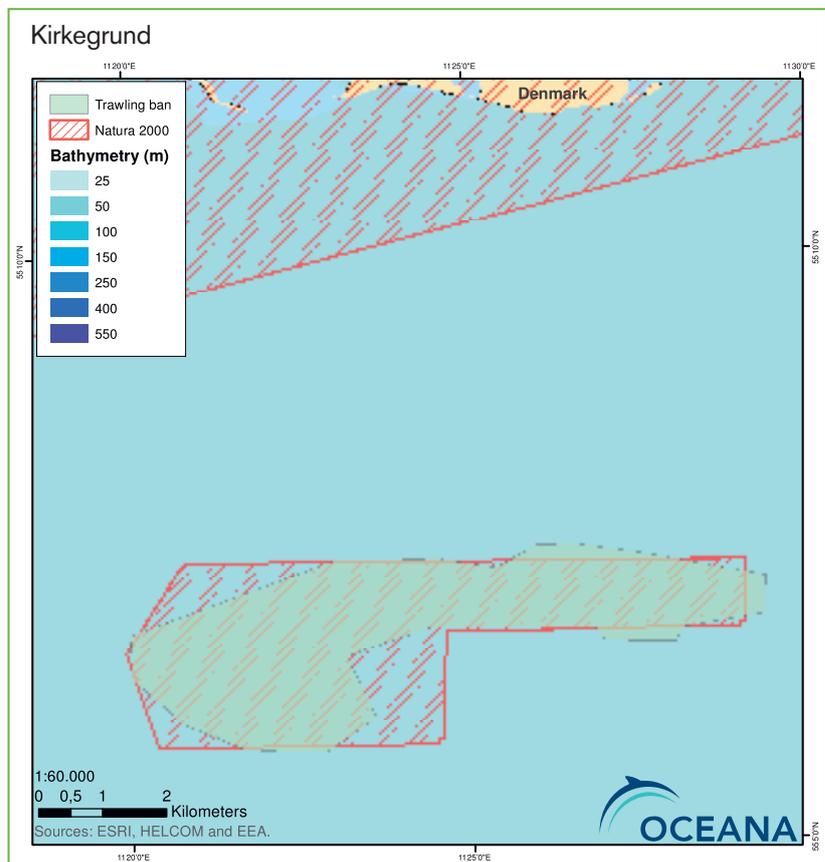
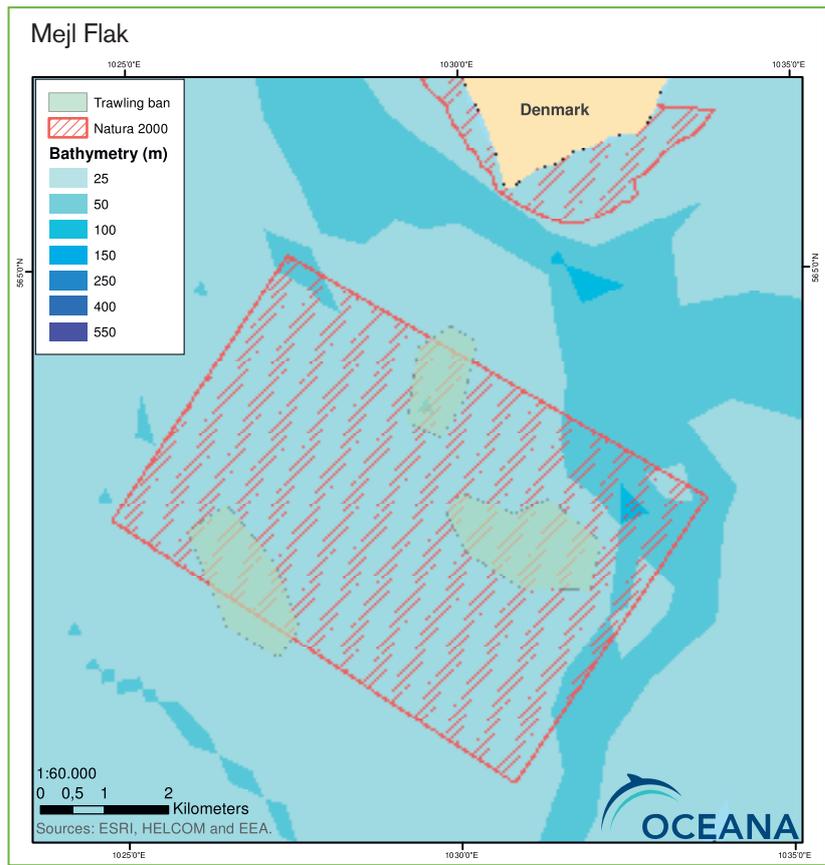
stance, the Danish Nature Agency's definition of reef is inadequate, and does not include some types of reef structures, leaving them totally unprotected. Together with WWF, Greenpeace, Birdlife Denmark and the Danish Society for Nature Conservation, Oceana criticized this definition for being entirely based on technical measuring criteria, and therefore not including biological criteria, as described in the EU Habitats Directive. Also, according to the Danish definition, reef structures under a certain size are not considered. This means that some reefs in Danish Natura 2000 sites are not protected from bottom trawling fisheries. Expanding the trawling ban to cover areas larger than the 240 meter zone, would correspond with the MSFD (article 13, paragraph 4), which states that spatial protection measures for MPAs should be established in order to reach GES (MSF 2008).

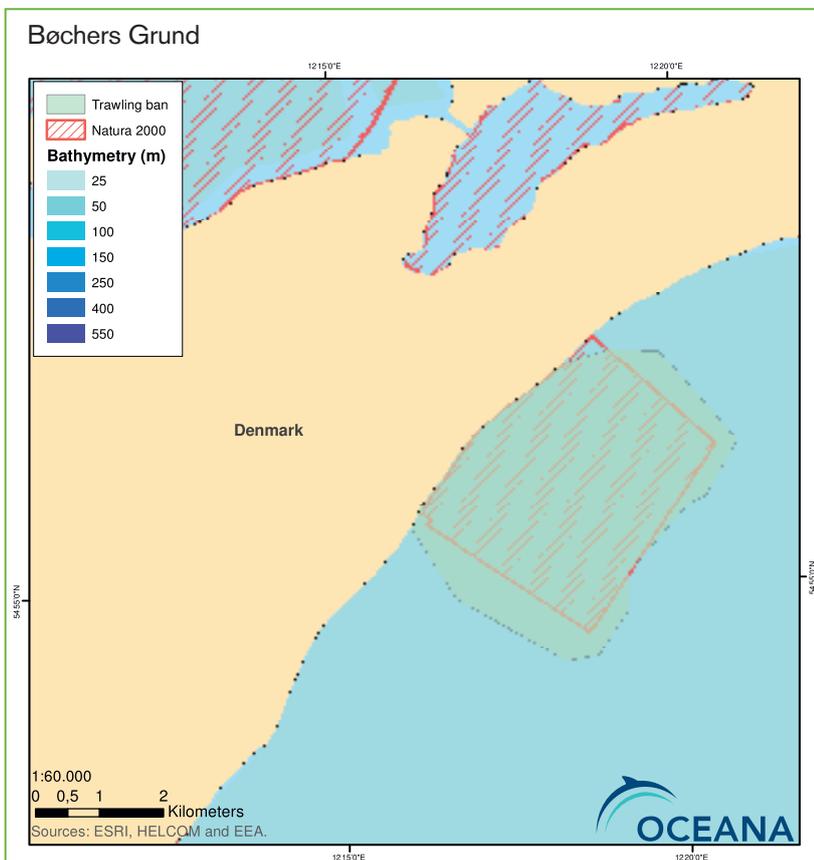
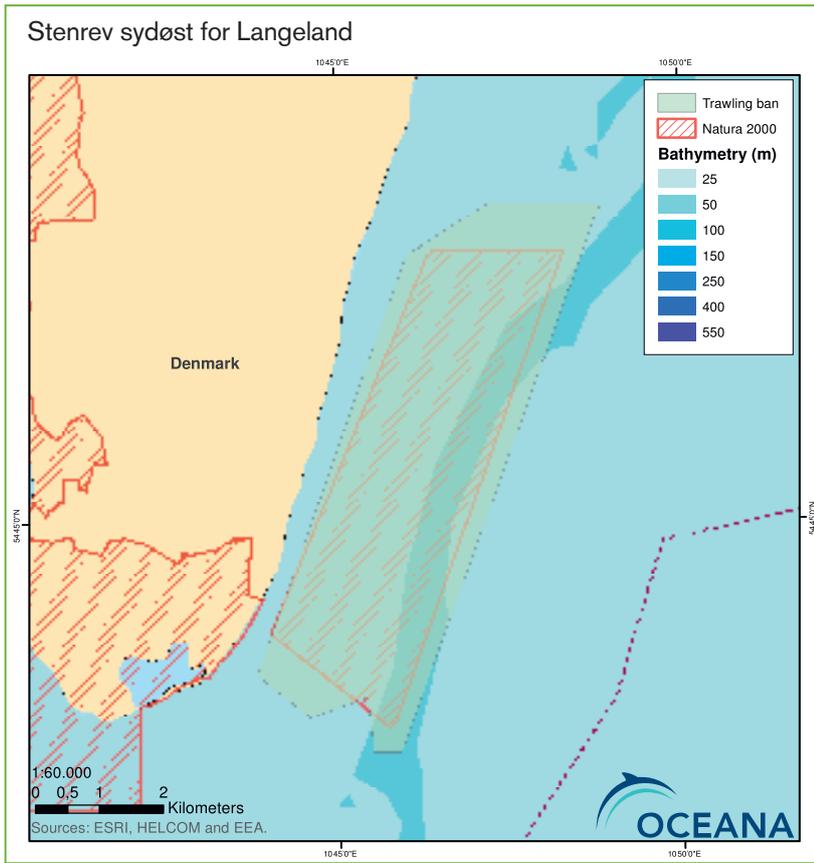
Despite the shortcomings of this regulation, Oceana strongly supports the systematic development of similar initiatives in other countries' MPAs.

Goldsinny-wrasse (*Ctenolabrus rupestris*) with sponges (*Haliclona oculata*), plumose anemones (*Metridium senile*) and brown algae. Søspejderne, Little Belt, Denmark. 2013. © OCEANA/ Carlos Minguell



**Figure 10:** The four Danish Nature 2000 sites in which the trawling ban zone has been established (Danish rule 2013).





# Harmful activities in Marine Protected Areas



## Mussel dredging in Denmark

The Danish AgriFish Agency has issued permissions for mussel dredging (for blue mussels, *Mytilus* sp.) inside three Natura 2000 sites located in the Little Belt and Limfjorden. This fishing practice disturbs life on the seafloor and leads to the deterioration of benthic fauna, which for some habitat types in Little Belt, can last up to four years. Flatfish are also caught as a by-catch during this activity (Dolmer *et al.* 2013).

While questioned whether this practice is in line with the requirements of the Habitats Directive (Danish Society for Nature Conservation 2008), the EU Commission recently declared that the dredging complied with the requirements of the Directive (EC Decision 2010/4157). However, similar fisheries in other European countries have been banned or restricted because of their destructive impacts on the seafloor and protected flora and fauna<sup>4</sup>. It is therefore clear that there is inconsistency in the treatment of similar fisheries in different EU Member States.

Because mussel fisheries are already allowed outside of Natura 2000 sites, it is of primary importance to halt physically destructive activities within these protected areas. Oceana is thus deeply concerned about this trend, because these areas are protected specifically because of the exceptional marine biodiversity they host. Scientific evidence shows the devastating impacts of dredging on the benthos, seafloor communities and geomorphology.

<sup>4</sup> Cockle or blue mussels fisheries, or scallop dredging in Ireland (Dundalk Bay S.I. No. 692 of 2007, Waterford Estuary S.I. No. 531 of 2007), or in part of the Wadden Sea in The Netherlands (CWSS, 2002. Shellfish Fisheries).

## Harbour porpoise bycatch in Poland

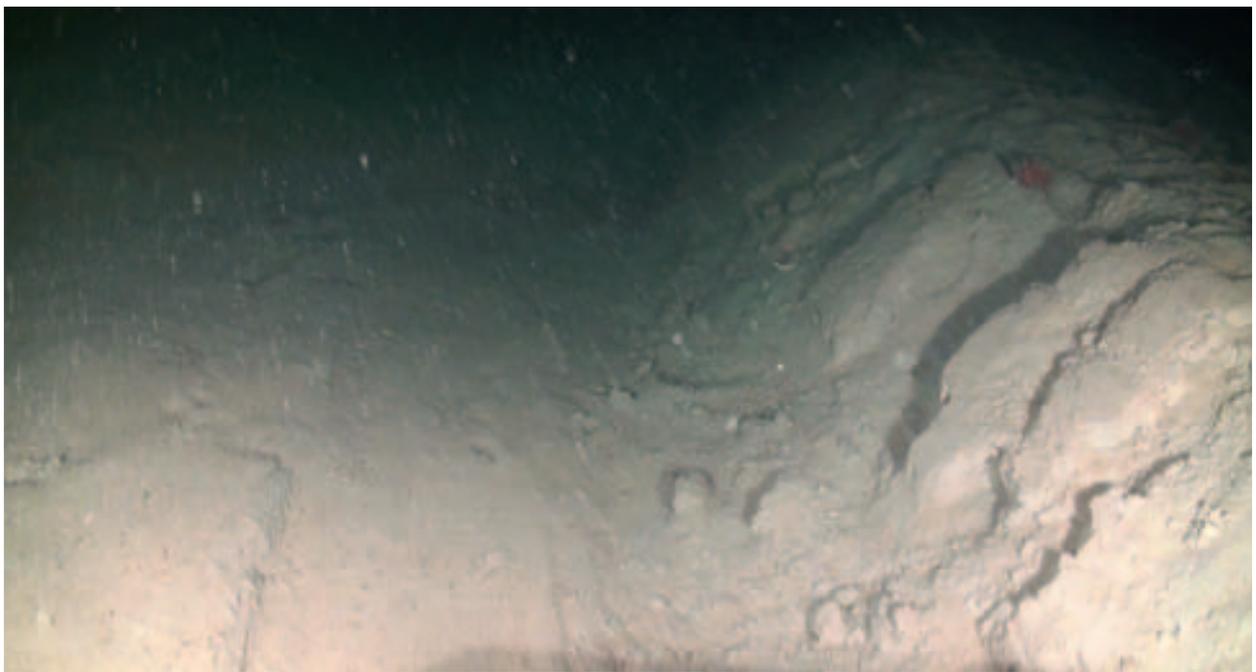
Gillnet fisheries represent a threat toward harbour porpoises in the Baltic Sea and the Kattegat and are widely allowed in areas established to protect this mammal (Hammond *et al.* 2008; ASCOBANS 2003; Berggren *et al.* 2002). Furthermore, estimated levels of unreported by-catch of harbour porpoise are very high (Koschinski & Pfander 2009). In the German part of the Baltic Sea for example, annual by-catch rates for this species between 2005 and 2007 have been reported as ranging from 2.7% to 7.8%. Surprisingly though, in Poland's *Puck Bay* - a Natura 2000 area which was established to protect this species - there are no restrictions when it comes to the use of gillnets, and moreover the authorities preparing the management plan did not introduce any precautionary measures within the document. *Puck Bay* is also a "porpoise sanctuary" where harbour porpoises are commonly sighted, yet its management plan's draft lacks any concrete measures to protect them, only proposing a multi-year monitoring schedule first. This is in conflict with the aim of the Natura 2000 network to establish priorities in the light of the importance of these sites in maintaining or restoring habitats and species and bringing the sea back to a favourable conservation status.

Harbour porpoise (*Phocoena phocoena*) in the Sound, Sweden, 2013.  
© OCEANA/ Carlos Minguell





Finnish trawler in the Baltic Sea, 2011. © OCEANA/ Carlos Minguell



Trawling mark in the deeper parts of Kattegat, Denmark, recorded by ROV in 2011. © OCEANA

### Box 1: Trawling ban in the Sound

Trawling has been banned in the Sound, which is the strait between Sweden and Denmark, since 1932 (Danish/Swedish rule 1933). The decree ratifies the Danish-Swedish convention for the fishing conditions in the waters bordering the two countries. The ban extends from the line between Ellekilde Hage and Lerberget in the north, to the line between the Stevns and Falsterbo lighthouses. Both countries enforce the prohibition by controlling their own vessels throughout the entire area, and the foreign vessels in their respective side of the strait.

The ban was established because of the heavy maritime traffic in the area, as the Sound is the main transport route to and from the Baltic Sea. Interestingly, thanks to the trawling ban the benthic life in the area is thriving and boasts several rare and endangered habitats and species. Horse mussel (*Modiolus modiolus*) and small crustacean (*Haploops*) communities, which used to be more widespread in the region, including in the Kattegat, are among the rare habitats found in the Sound today (Oceana 2014). Besides preserving those benthic habitats, the trawling ban is beneficial for fish species, such as cod and flat fish, which are larger and more abundant in the Sound than in the neighboring Kattegat, for instance.

The ban is still in effect 80 years later and there are no plans to end it (Danish Ministry for Food, Agriculture and Fisheries, 2012).



*Haploops* sp. tubes. Sample taken from Kattegat, Danmark, 2012. OCEANA/ Carlos Minguell

# Conclusions



Countries around the Baltic Sea have committed to establishing a network of well-managed and ecologically coherent MPAs. The target of having 10% of the sea protected has technically been reached in the Baltic Sea, but two sub-basins, the Gulf of Bothnia and the Baltic Proper respectively, have not reached this target yet (HELCOM 2013a). Furthermore, the MPA coverage is not well balanced as it is generally lacking in offshore areas, and there is little to no protection of deep areas in the Baltic Sea and the Kattegat. Nevertheless Oceana is pleased that countries in the region continue to designate new sites for protection, which we work to support by, most recently, proposing 13 areas in the Kattegat and the Baltic Sea that would make prime candidates (learn more in “Oceana Proposal for Marine Protected Areas”, Oceana 2014).

Of the many MPAs in the region, more than half have management plans (69% of the marine Natura 2000 sites and 65% of the BSPAs). However, proper management measures are often lacking, information about them is scarce, and most if not all kinds of human activities are allowed inside them. This is particularly true where fisheries restrictions are concerned, as no MPA has yet to been declared a complete no-take zone in the Baltic Sea.



Butterfish (*Pholis gunnellus*) inside the Swedish Natura 2000 site *Svenska Björn* in 2012. © OCEANA/ Carlos Minguell

There is a need for a holistic approach and vision, when establishing new MPAs and preparing management measures for them. This is something that the Marine Strategy Framework Directive can assist with, as it not only requires countries to nominate new MPAs, but also to address all human activities that have an impact on the marine environment in order to achieve GES by 2020. Finally, MPAs should also be included in any other marine planning activity at an early stage to ensure that the natural values and ecosystem services they provide are not compromised.

# Oceana's recommendations for effective MPA management



Nudibranchs (*Coryphella verrucosa*), Bohuslän Archipelago, Kattegat, Sweden, 2012.  
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There is a vast array of national, international and EU policy strategies, guidelines and visions, ambitions and concrete targets when it comes to the conservation and management of the protected habitats and species. Over the decades, constant work towards fulfilling the EU's commitment to protect biodiversity and halt its loss, has led to increasingly complex policies.

Appropriate legislative and regulatory frameworks are fundamental to achieving an effective MPA network. Many countries have special legislation for establishing individual MPAs, along with a variety of authorities with marine responsibilities, but few have a strategic legislative framework or institutional arrangements for a representative MPA network. Despite the fact that the number of MPAs keeps increasing around the world, simply designating an area as "protected" does little for its conservation. These areas need to be properly managed, controlled and enforced if they are to successfully protect marine life.

The keys to achieving healthy and productive seas are not visions and strategies but concrete actions. Only comprehensive, well-enforced management plans that introduce hard conservation measures such as no-take zones, and ban harmful fisheries practices and gears, can serve as efficient tools for preserving and restoring biodiversity, and help to maintain healthy fish stocks. Used wisely, MPAs can generate both ecological and socio-economic benefits.

MPAs should serve as sanctuaries for fish, marine mammals, water birds, benthic species and habitats. They should act as buffers for all ecosystems, protecting them from the effects of destructive fishing practices and other harmful human activities, and allowing them to continue providing human beings with their vital goods and services,

including providing food, recycling nutrients, controlling erosion, regulating the climate, protecting against natural hazards, and providing cultural and aesthetical services. In order to keep our natural capital healthy and resilient, damaging activities should not be allowed inside any MPAs.

Oceana's overarching goal is to have 25 to 30% of the Baltic Sea and Kattegat effectively conserved with well-managed MPAs, some of which should include no-take zones. Attention should be put on preserving essential fish habitats and protecting threatened species. Oceana therefore urges the development of comprehensive MPA management plans, and the completion of mapping and assessments of current and potential threats in MPAs. Management plans should cover the biodiversity within the area, address threats, have a monitoring programme, and include strict fisheries measures.

Based on our review of MPAs in the Baltic Sea, the Belts and Kattegat, and their management status, Oceana gives the following recommendations:

**MPA management plans should include, but not be limited, to these specific measures:**

1. All fisheries that take place inside MPAs should be included in the management plans created for the areas in question, so as to not undermine conservation objectives. Consequently, fishermen should have to apply for a permit to fish inside MPAs.
2. Monitoring, control and surveillance of fishing activities must receive sufficient resources so as to be efficient in all MPAs, regardless of their conservation purpose, due to the severity of the impact of these activities on MPAs and habitats in general. Vessel Monitoring Systems (VMS) should be mandatory for all fisheries inside MPAs.

3. Anthropogenic threats in each individual MPA should be assessed, and those threats which are harmful to the biodiversity and vulnerable species of the area, should be eliminated. Generally known destructive practices, such as dredging and trawling or fishing gears with high by-catch rates, should be banned inside MPAs, unless they are proven to be harmless. As the first step, EU Member States should follow the obligations of the Habitats Directive, and:
  - a. Develop risks assessment tools for fishing activities in MPAs (e.g. sensitivity or vulnerability matrix) in line with Article 6.2 of the Habitats Directive;
  - b. Consider a fishing activity to be “*a plan or project*” in the sense of Article 6.3 of the Habitats Directive and consequently require that an Appropriate Assessment procedure be undertaken when risk assessment conclusions indicate the likelihood of significant effects on the habitats and protected species arising from the proposed activity.
  - c. Introduce suitable management measures, including banning fishing activities in the area to protect those important features.
4. Recreational fisheries should be monitored, controlled and widely restricted inside all MPAs.
5. MPAs should be used in conjunction with other management tools, such as marine spatial planning or integrated coastal zone management. MPAs should form the cornerstone of these planning processes: protecting fragile ecosystems must be prioritized before allocating space to other users.
6. Ecosystem-based management and precautionary approach principles should be at the core of all management plans. If, for whatever reason, data is lacking for any area, a precautionary approach should be adopted and the assessment of adverse effects should be based on the worst-case scenario.
7. EU Member States should make the best use of MSFD Article 13.4 and the HELCOM Red List of species and habitats to overcome the Habitats Directive’s limits, and should also consider other important species and habitats, such as eelgrass beds (*Zostera* sp.) and soft bottom communities, including HELCOM red-listed *Modiolus* and *Haploopsis* communities (HELCOM 2013b), when designating new sites and developing management plans for existing areas.
8. Appropriate levels of funding are needed to ensure effective management of MPAs. Funding for identification, selection, designation, management and monitoring of MPAs is crucial to maximize their contribution to fisheries. Member States therefore need to clearly earmark funds for those objectives under their national programmes (e.g. European Maritime and Fisheries Fund’s national Operational Programmes, as well as Natura 2000 Prioritized Action Framework).

Polish fishing boat, the Baltic Proper, 2012.  
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## References



Barnacle (*Balanus improvisus*) on blue mussel (*Mytilus* sp.). Puck Bay, Poland. 2013.  
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## References

- AgriFish Agency website, the Ministry for Food, Agriculture, and Fisheries, about mussel dredging: <http://naturerhverv.dk/fiskeri/erhvervsfiskeri/muslinger-og-oesters/fiskeri-efter-blaamuslinger/>
- Aichi targets. Aichi Biodiversity Targets. Available at: <http://www.cbd.int/sp/targets/>
- Anker Pedersen S., Fock H. O., & Sell A. F. (2009). Mapping fisheries in the German exclusive economic zone with special reference to offshore Natura 2000 sites. *Marine Policy*, 33, pp. 571-590.
- Anonym (2013). 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.
- ASCOBANS (2003). Proceedings of the 4th meeting of the parties to ASCOBANS - Esbjerg, Denmark, 19-22 August 2003. ASCOBANS. Bonn. 121 pp.
- Baltic Environmental Forum, Latvia (2009a). Management plan for Nida-Perkone (in Latvian): Aizsargajamas juras teritorijas "Nida-Perkone" dabas aizsardzibas plans. Available at: [http://www.daba.gov.lv/upload/File/DAPi\\_apstiprin/AJT\\_Nida-Perkone09.pdf](http://www.daba.gov.lv/upload/File/DAPi_apstiprin/AJT_Nida-Perkone09.pdf)
- Baltic Environmental Forum, Latvia (2009b). Management plan for West Coast of Riga Gulf (in Latvian): Aizsargajamas juras teritorijas "Rigas lica rietumu pekraste" dabas aizsardzibas plans. Available at: [http://www.daba.gov.lv/upload/File/DAPi\\_apstiprin/AJT\\_RigasL\\_R\\_piek-09.pdf](http://www.daba.gov.lv/upload/File/DAPi_apstiprin/AJT_RigasL_R_piek-09.pdf)
- Berggren P., Wade P. R., Carlstrom J. & Read A. J. (2002). Potential limits to anthropogenic mortality for harbour porpoises in the Baltic region. *Biological Conservation* 103 (2002) 313-322
- CFP (2013). 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. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:354:0022:0061:EN:PDF>
- Danish Ministry for Food, Agriculture and Fisheries (2012) (in Danish). The Environmental Committee of the Danish Parliament. Case number 13651: Final answer to question 151. Available at: <http://www.ft.dk/samling/20111/almDEL/miu/spm/151/svar/860062/1083174.pdf>
- Danish rule: BEK No. 18 by 14/01/1993 (in Danish). "Bekendtgørelse om trawl- og andet vadfiskeri". Available at: <https://www.retsinformation.dk/Forms/r0710.aspx?id=76822>
- Danish/Swedish rule: BKI No. 228 by 21/06/1933 (in Danish). "Bekendtgørelse om en under 31. December 1932 mellem Danmark og Sverige afsluttet Konvention angaaende Fiskerforholdene i de til Danmark og Sverige grænsende Farvande". Available at: <https://www.retsinformation.dk/Forms/R0710.aspx?id=77230>
- Danish Society for Nature Conservation (2008). Klage over den danske stats overtrædelse af habitatdirektivets artikel 6.3 i forbindelse med tilladelse til muslingefiskeri i Natura 2000 områder. Available at: [http://dn.dk/Files/Billeder/Natur/Vand/Muslinger/EU-klage\\_muslinger.pdf](http://dn.dk/Files/Billeder/Natur/Vand/Muslinger/EU-klage_muslinger.pdf)
- Dayton P., Sala E., Tegner M. and S. F. Thrush (2000). Marine protected areas: parks, baselines, and fishery enhancement. *Bulletin of Marine Science* 66: 17.
- Directive 2008/56/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive). Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:164:0019:0040:EN:PDF>
- Dolmer P., Christoffersen M., Geitner K., Larsen F., Dinesen G. E. & Holm N.(2013). Konsekvensvurdering af fiskeri på blåmuslinger i Lillebælt 2013. DTU Aqua rapport nr. 261-2013. Available at: [file:///C:/Users/cabel/Downloads/261\\_2013\\_konsekvensvurdering\\_af\\_fiskeri\\_p%C3%A5\\_blaamuslinger\\_i\\_lillebaelt.pdf](file:///C:/Users/cabel/Downloads/261_2013_konsekvensvurdering_af_fiskeri_p%C3%A5_blaamuslinger_i_lillebaelt.pdf)
- Edgar G. J., Stuart-Smith R. D., Willis T. J., Kininmonth S., Baker S. C., Banks S., Barrett N. S., Becerro M. A., Bernard A. T. F., Berkhout J., Buxton C. D., Campbell S. J., Cooper A. T., Davey M., Edgar S. C., Försterra G., Galván D. E., Irigoyen A. J., Kushner D. J., Moura R., Parnell P. E., Shears N. T., Soler G., Strain E. M. A., & Thomson R. J. (2014). Global conservation outcomes depend on marine protected areas with five key features. *Nature* 506, 216-220.
- EEA (2012). Protected areas in Europe - an overview. EEA Report No 5/2012.

EMPAS (2009). Report of the EMPAS project (Environmentally Sound Fishery Management in Protected Areas. An ICES-BfN project 2006-2008. Available at: [http://info.ices.dk/projects/empas/Report\\_of\\_the\\_EMPAS\\_project\\_2006-2008\\_5\\_May.pdf](http://info.ices.dk/projects/empas/Report_of_the_EMPAS_project_2006-2008_5_May.pdf)

EUROPARC. Nordic-Baltic Section- Latvia. Available at: <http://www.europarc-nb.org/protected-areas/latvia>

Federal Fisheries Agency, Russia (in Russian). Available at: <http://www.fish.gov.ru/agency/Pages/default.aspx>

General Directorate for Environmental Protection, Poland. Available at: [http://www.gdos.gov.pl/Articles/view/2890/Network\\_management](http://www.gdos.gov.pl/Articles/view/2890/Network_management)

German rule (2014) (in German): Landesfischereigesetzes - Bekanntmachung der Neufassung des Landesfischereigesetzes (10.02.2014). Available at: [https://recht.nrw.de/lmi/owa/br\\_bes\\_text?anw\\_nr=2&gld\\_nr=7&ugl\\_nr=793&bes\\_id=3852&aufgehoben=N&menu=1&sg=0](https://recht.nrw.de/lmi/owa/br_bes_text?anw_nr=2&gld_nr=7&ugl_nr=793&bes_id=3852&aufgehoben=N&menu=1&sg=0)

German rule (2008) (in German): Küstenfischereiverordnung – KüFO. Landesverordnung über die Ausübung der Fischerei in den Küstengewässern. Available at: [http://www.schleswig-holstein.de/UmweltLandwirtschaft/DE/LandFischRaum/08\\_Fischerei/PDF/KueFO\\_11\\_2008\\_\\_blob=publicationFile.pdf](http://www.schleswig-holstein.de/UmweltLandwirtschaft/DE/LandFischRaum/08_Fischerei/PDF/KueFO_11_2008__blob=publicationFile.pdf)

Halpern B. S., Walbridge S., Selkoe K. A., Kappel C. V., Micheli F., D'Agrosa C., Bruno J. F., Casey K. S., Ebert C., Fox H. E., Fujita R., Heinemann D., Lenihan H. S., Madin E. M. P., Perry M. T., Selig E. R., Spalding M., Steneck R. & Watson R. (2008). A global map of human impact on marine ecosystems. *Science*, Vol. 319, No. 5865, 948-952 pp.

Hammond P. S., Bearzi G., Bjørge A., Forney K., Karczmarski L., Kasuya T., Perrin W. F., Scott M. D., Wang J. Y., Wells R. S. & Wilson B. (2008). *Phocoena phocoena* (Baltic Sea subpopulation). In: IUCN 2013. IUCN Red List of Threatened Species. Version 2013.2. Available at: [www.iucnredlist.org](http://www.iucnredlist.org).

HELCOM database. HELCOM Baltic Sea Protected Areas Database. Available at: [bspa.helcom.fi](http://bspa.helcom.fi)

HELCOM (2013a). HELCOM PROTECT - Overview of the status of the network of Baltic Sea marine protected areas. 31 pp. Available at: <http://www.helcom.fi/Lists/Publications/PROTECT/HELCOM%20BSPAs%20report%202013.pdf>

Common starfish (*Asterias rubens*),  
Kattegat, Sweden, 2012.  
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Cod (*Gadus morhua*) at the offshore bank Södra midsjöbank, Sweden, in the Baltic Proper. 2012. © OCEANA/ Carlos Minguell

HELCOM (2013b). Red list of Baltic Sea underwater biotopes, habitats and biotope complexes. Baltic Sea Environment Proceedings No. 139. 69 pp.

HELCOM Ministerial Declaration (2010). HELCOM Ministerial Declaration on the implementation of the HELCOM Baltic Sea Action Plan. Available at: <http://www.helcom.fi/Documents/Baltic%20sea%20action%20plan/HELCOM%20Moscow%20Ministerial%20Declaration%20FINAL.pdf>

HELCOM Recommendation 15/5. Available at: <http://helcom.fi/Recommendations/Rec%2015-5.pdf>

Holling C. S. (1973). Resilience and Stability of Ecological Systems. Annual Review of Ecology and Systematics 4: 23.

Hughes T. P., Bellwood D. R., Folke C., Steneck R. S. and Wilson J. (2005). New paradigms for supporting resilience of marine ecosystems. Trends in Ecology and Evolution 20: 6.

IUCN (2012). Guidelines for applying the IUCN protected area management categories to marine protected areas. Best practice protected area guidelines series No. 19. Available at: [http://cmsdata.iucn.org/downloads/iucn\\_categoriesmpa\\_eng.pdf](http://cmsdata.iucn.org/downloads/iucn_categoriesmpa_eng.pdf)

Koschinski S., & Pfander A. (2009). 16th ASCOBANS Advisory Committee Meeting - Document 60. 2009.

Latvian rule (2011): Irbe Strait protection rules (in Latvian): "Aizsargājamās jūras teritorijas "Irbes šaurums" individuālie aizsardzības un izmantošanas noteikumi". Available at: <http://likumi.lv/doc.php?id=238305>

Länsstyrelsen Östergötland website. Hänsynsområde, Licknevarpefjärden/Kväadöfjärden. Available at: [http://www.lansstyrelsen.se/ostergotland/Sv/miljo-och-klimat/vatten-och-vattenanvandning/vi-jobbar-med/projekt/hansynsomraden/Pages/licknevarp\\_kvado.aspx](http://www.lansstyrelsen.se/ostergotland/Sv/miljo-och-klimat/vatten-och-vattenanvandning/vi-jobbar-med/projekt/hansynsomraden/Pages/licknevarp_kvado.aspx)

LIFE Nature Project (2009). Marine Protected Areas in the Eastern Baltic Sea. Reference number: LIFE 05/NAT/LV/000100. Available at: [http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/C1\\_final\\_report.pdf](http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/C1_final_report.pdf)

McNeely J. and Miller K. (1982). Proceedings of the World Congress on National Parks and Protected Areas. Bali, Indonesia.

MSFD (2008). Marine Strategy Framework Directive. Directive 2008/56/EC of the European Parliament and of the council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:164:0019:0040:EN:PDF>

NRC (National Research Council) (2000). Marine Protected Areas: tools for sustaining ocean ecosystems. Washington, D.C., USA, National Academy Press.

N2000 SDF. Natura 2000 Standard Data Form. Available at: <http://www.eea.europa.eu/>

Oceana (2014). Oceana proposal for Marine Protected Areas. Available at: <http://baltic.oceana.org/en/bl/media-reports/reports/oceana-proposal-for-marine-protected-areas>

Olsen E. M., Johnson D., Weaver P., Goñi R., Ribeiro M. C., Rabaut M., Macpherson E., Pelletier D., Fonseca L., Katsanevakis S., Zaharia T. (2013). Achieving Ecologically Coherent MPA Networks in Europe: Science Needs and Priorities. Marine Board Position Paper 18. Larkin K. E. and McDonough N. (Eds.). European Marine Board, Ostend, Belgium.

Regeringens proposition 2013/14: 186. Available at: <http://www.regeringen.se/content/1/c6/23/62/78/29ba84c8.pdf>

Roberts C. M., Bohnsack J. A., Gell F., Hawkins J. P. and Goodridge R. (2001). Effects of Marine Reserves on Adjacent Fisheries. *Science* 294.

Russ G. R. and Alcala A. C. (2004). Marine reserves: long-term protection is required for full recovery of predatory fish populations. *Oecologia* 138: 6.

Wilkinson C. (2004). Status of Coral Reefs of the World: 2004, Australian Institute of Science.



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