



Seminar
“Protecting the marine eco-system - Lessons learned from project activities in Estonian, Latvian and Lithuanian marine waters”

27-28 October 2009, Sigulda, Latvia

REPORT

The objective of the seminar was to present the final results of LIFE Nature project “Marine protected areas in the Eastern Baltic sea”, interim results from the project “Implementation of Natura 2000 in Estonian marine areas: site selection, designation and protection measures – ESTMAR and experiences from other projects activities regarding marine nature protection, management and marine spatial uses & planning.

Opening and introduction - Marine Protected Areas at BEF - How it began and where we stand today

by Heidrun Fammler, BEF-Group

Ms. Fammler reflected briefly the history of development of marine projects by BEF, gave a short overview on LIFE Baltic MPAs and ESTMAR projects as well as introduced the goals of the seminar.

FROM SPECIES AND HABITAT INVENTORIES TO DESIGNATION OF MPAs AND PROPOSED CONSERVATION MEASURES

Current status of the Habitats Directive marine Special Areas of Conservation (SACs) network

by Otars Opermanis, European Topic Centre on Biological Diversity

Mr. Opermanis gave an overview on history of development of Natura 2000 network in marine areas; problems regarding identification of marine sites, species and habitats; current results in site designation and first results of sufficiency evaluation of marine Natura 2000 sites.

European Commission created Marine WG in 2003. Marine guidelines were produced in 2007 and additional guidelines on evaluating sufficiency of MPAs in 2009.

However, there are problems with identification of marine sites, species and habitats. 16 species and 5 habitats are only classified as marine.

Currently there are only 49 offshore sites in EU 27 (mostly in Atlantic region).

Results of the 1st marine seminar (Galway, March 2009, 10 Member States) show that the main difficulties regarding implementation of Natura 2000 in marine areas are: possibility of further changes in the Reference Lists; difficulties with conclusions from the pre-‘marine reserve’ period and variety in available data. Some member states have poor proposals, especially offshore, but others have reached significant progress (e.g. Germany, Netherlands, France, Sweden). 32% of MPA designations were evaluated as sufficient (including few with data corrections required).

There are still some obvious gaps: Not all marine species and habitats are included in annexes of the Habitats Directive, some amendments might be needed also due to new Member States joining EU. There are very few marine priority features and these mostly represent southern areas. For the Marine-Baltic region, it is not possible to have offshore marine site with a priority feature, which may cause implications to site management.

Discussion

- In the first EC Marine Guidelines also some coastal habitats were classified as marine. But also coastal habitats will be probably discussed in marine seminars.
- Next year or even this year some new marine sites will be designated.
- ETC would be thankful for any data to help evaluation for the biogeographic seminar in November 2009.
- MPAs can have also terrestrial parts, one site can have several NUTS codes. There are lots of SPAs also in marine areas but ETC is not evaluating SPAs. EC uses IBA approach to evaluate SPA network. ETC has proposed a methodology for evaluating SPAs but it was rejected. The process follows more legal than scientific reasons.

Findings from the inventories carried out in the frame of the LIFE Nature grant “Marine Protected Areas in the Eastern Baltic Sea” and the Norwegian grant “Implementation of Natura 2000 in Estonian marine areas: site selection, designation and protection measures – ESTMAR”:

Mapping of benthic habitats in NE Baltic Sea

By *Georg Martin, Estonian Marine Institute of Tartu University, Estonia*

Mr. Martin gave an overview on situation concerning available data on benthic communities before 2005 and now in 2009. He also explained the purpose of large scale marine inventories, described the methodology used for mapping of benthic communities in LIFE Baltic MPA and ESTMAR projects as well as presented the results.

The main achievements:

- Large sections of territorial waters of EST, LAT and LIT were mapped for first time!
- Classification system for benthic habitats was created and used.
- New mapping technique based on combination of UW video sampling and traditional methods was created and used.
- Great amount of new information is collected (distribution of species, habitats, conservation status).
- Some new species were discovered or rediscovered (7 invertebrate species in Estonia) and some new habitats found (moraine ridges in Lithuania as a special type of reefs).

Future challenges:

- Development of capability of underwater video sampling at depths over 40 m and offshore;

- Further development of habitat modelling techniques (less field data – more reliable modelling results);
- Mapping of remaining existing Natura areas in 2010-2012;
- Application of new remote sensing techniques (e.g. Sonar);
- Development of water quality and state of biodiversity indicators based on spatial characteristics of benthic communities/habitats.

Discussion:

- The results of the habitat mapping in the frame of the LIFE Baltic MPAs project are finalized and available. ESTMAR inventory results are currently being analysed.
- Specific geological formations were found also in Latvia, eastern part of Gulf of Riga.
- The first habitat mapping in Lithuanian waters was carried out in 1996, however, with much smaller resolutions and smaller scale.
- It is impossible to do modelling if you don't have fine-scale background data. Previous methodologies were not able to detect all habitats.
- A more detailed habitat classification system was created to use all information from inventories, it could be used also for evaluation of Natura 2000 network.
- Habitat variation is also a criterion for evaluation, sub-types can be described. Detailed guidance is available at http://biodiversity.eionet.eu/activities/Natura_2000/pdfs/Additional_marine_guide_lines.pdf

Findings from the waterbird inventory carried out in the frame of the LIFE-Nature project “Marine Protected Areas in the Eastern Baltic Sea”

By Mindaugas Dagys, Institute of Ecology, Vilnius University, LT

Mr. Dagys gave an overview on situation concerning waterbird data and designation of SPAs in Estonia, Latvia and Lithuania before the LIFE Baltic MPAs project, described the bird inventories carried out in the LIFE-project and methodology used, and presented the results. He also informed about the results of other bird-related activities: assessments of disturbance and by-catch.

Main conclusions:

- Situation before: All three countries had IBA data from 1990ies. In Estonia most of IBAs were designated as SPAs, in Latvia only some coastal IBAs were designated and in Lithuania SPAs designated were much smaller than IBAs.
- LIFE project gave up-to-date information on species composition, abundance and distribution of waterbirds as well as good experience about methods, including data analysis and using MCC (Marine Conservation Criterion (Skov *et al.*, 2007) for site delineation.
- In Estonia no new sites or site extensions were proposed. In Latvia 5 new SPAs were proposed. In Lithuania extension of one SPA was proposed as result of the LIFE project.
- Disturbance assessment concluded that sites are mostly large enough to avoid negative effects of disturbance. Recreation is an important and increasing disturbance factor for breeding birds on small islands and moulting birds. Shipping is a low disturbance issue from which birds can move away. In Lithuania

disturbance of military shooting training was assessed. It was concluded that shooting should be limited to time periods when there are no birds.

- By-catch assessment concluded that except in Lithuania, the bird by-catch was not significant threat. The most common by-catch victim was Long-tailed Duck. As large mesh size gill nets had the highest bycatch rates, mesh size limitations were proposed in Lithuania. It was also concluded that registration of bycatch was very important. It should be done on a wider scale in EU.

Preliminary results of bird inventories in frame of the project “Implementation of Natura 2000 in Estonian Marine Areas: site selection, designation and protection measures – ESTMAR”

By Andres Kalamees, Estonian Ornithological Society, Estonia

Mr. Kalamees introduced the bird inventories in Estonian offshore areas (still not in EEZ) in the frame of ESTMAR project and presented the preliminary results.

Main conclusions:

- Most of the field work (ship and aerial surveys) in all 10 selected areas is finished but data are not yet analysed.
- Preliminary counting results show that concentrations of several bird species in investigated areas fulfil international IBA/SPA criteria – Long-tailed Duck in Gretgrund; Little Gull and Steller’s Eider in West-Saaremaa; Long-tailed Duck and Common Eider in North-Hiiumaa; Long-tailed Duck in Neugrund; Velvet Scoter and Common Scoter in Vaindloo-Snegi area. However, some of the concentrations were found not in exact project areas but in the surrounding areas. ship surveys, also in surrounding areas.
- Importance of our areas for Long-tailed Duck will increase in future. Therefore we should think how to protect this bird in Estonia.

Marine mammal inventory with some reference to by-catch assessment

By Ivar Jüssi, Environmental Board, Estonia

Mr. Jüssi gave an overview on surveys of the Harbour porpoise, Grey seal and Ringed seal carried out in the frame of the LIFE Baltic MPAs project and presented results and conclusions from LIFE and ESTMAR projects.

Main conclusions:

- Porpoises are really rare and are extremely rare in Eastern Baltic coast. No “porpoise positive” days were recorded by the deployed passive acousting monitoring devices (T-PODs) during the LIFE project. Main known threat is by-catch in set nets (salmon, turbot and cod). It is not feasible to apply restrictions when only vagrant individuals can pass the area. No special additional protection measures are applicable for protection of the species in the project areas.
- A new LIFE+ project application SAMBA is submitted to study porpoises in the whole Baltic Sea.
- During the Grey seal survey, 6 seals were tagged with Fastloc/GSM tags with the aim to follow the use of habitats by seals. The survey results showed large variation of individual behaviour and habitat use among Grey seals, wide ranges of movements, as well as fidelity to certain foraging and resting areas. Grey seals are foraging in summer mainly in deep waters (water column 50 – 90 m), in cold season on coastal slopes and reefs. Seals undertake regular migrations between most important haulout sites in the Central Baltic Proper.

- Telemetry is the only tool for detailed description of habitat use of seals, which must be essential part of any EIA dealing with marine areas' development where seals are present.
- All major haul outs (resting places) of Grey seals in Eastern Baltic are protected. New moulting places were found but no special measures are needed for resting habitat protection. There is need for minor changes in protection regime of some sites. Baltic Grey seal population is out of risk and has been increasing during the study period ca 7 % per year. Main threat is by-catch in coastal fisheries; offshore fisheries can have implication through overexploitation of fish stocks in long term perspective.
- Population size of Ringed seals in the Gulf of Riga has not changed during 10 years (1996-2006). Normal healthy population should have been doubled during this time. Telemetry habitat study showed that most important foraging areas are in central and southern part of Gulf of Riga in 30 – 50 m depths. Suur Strait has crucial importance as migration route between resting and foraging areas. Resting site-fidelity of the Ringed seals is very high. Väinameri is the most important area for Ringed seals. A new important site was found (Pühadekare).
- Baltic Ringed seal population (ca 5000 animals) is endangered and there have been no signs of recovery during last 10 years in the Gulf of Riga and Gulf of Finland. Warming climate has very strong negative impact on breeding success. Other main threats are disturbance at breeding and resting sites, and fisheries bycatch. Large scale infrastructure development (eg bridge and wind parks) can have unforeseeable negative impact.
- Proposals to Estonian authorities concerning protection of the Ringed seal:
 - Changes in protection category;
 - Changes of borders and times for public access of existing protected areas;
 - Establish one more new special protection area;
 - Make seal-safe fishing gears mandatory at least in Pärnu Bay and Väinameri.
- Marine mammals are utilizing their habitats in very variable seasonal and spatial scale. It is possible to protect marine mammals only in whole range of their main activities, but some sites inside of the range are more important than the others.
- ESTMAR is concentrated mostly on specific Natura 2000 habitats (reefs) that have too small scale for general interest of marine mammal species. Sites can be temporarily used. General importance is difficult to evaluate sofar.

Discussion:

- There is no need to protect feeding places of seals until we use fish resources sustainably and use seal-safe fishing methods.

Fish inventory and use of by-catch safe fishing gear in pilot project areas in the frame of LIFE Baltic MPAs project and fish inventory in the frame of ESTMAR project

By Markus Vetemaa, Estonian Marine Institute of Tartu University, Estonia

Mr. Vetemaa gave an overview on goals, methods and main results of the fish inventory and testing of by-catch safe fishing gear carried out in the frame of the LIFE project as well as informed about the preliminary results of the fish inventory of the ESTMAR project.

Main conclusions of the fish inventory:

- It was the first large scale investigation of fish diversity in all 3 Baltic countries. As result of the LIFE project, detailed comparable data on abundance and distribution of species of nature protection interest in all 13 project areas in 3 countries was gained. In addition, lot of detailed information regarding all species in the project areas.
- On the ground of current development trends of coastal fishery in all three Baltic countries it can be concluded that fishery is not a critical threat to fish species of nature protection interest in any of the project areas.
- It was discovered that the abundance of two HD Annex II species – spined loach *Cobitis taenia* and bullhead *Cottus gobio* in Estonian coastal sea was very high.
- In Latvia new evidence on spawning sites and distribution of whitefish as well as new information on other protected fish species was gained. Underwater biotopes such as stony bottoms and underwater macrophytes as well as sandy bottoms serve as the best spawning and/or feeding grounds for most of fish species therefore the borders of designated areas suit best also from the perspective of fish conservation in Latvia.
- Two new species for Lithuania, longspined bullhead *Taurulus bubalis* and black goby *Gobius niger*, were scientifically documented.

Conclusions about testing of by-catch safe fishing gear

- In Lithuania long-lines and herring traps to replace gillnets were tested. Long-line is an effective gear, which is easy to set out, causes lower by-catch of cod under size limit compared to gill nets and avoids by-catch of birds or other animals. Seals can make damage for both gears and the catch. Herring trap nets need some skills to set and haul them. By-catch of protected fish species and fish below the commercial size limit can be rather big but fish in the trapnet remain alive and can be easily released. The gear was effective and fishermen started to purchase or build trapnets on their own expenses, therefore it could be concluded that this activity was successful.
- In Estonia the seal-safe fyke nets were tested to mitigate the seal bycatch as well as gear damages and catch loss caused by seals. Seals cannot enter the modified fyke nets and cannot drown there. They also cannot damage the fishbag of the net that is made of a very strong material. 25 modified nets were used during the project and no seals were caught. Action was successful and fishermen started to purchase modified fyke nets on their own costs (+support from Fishery Fund).

Fish inventory in the frame of ESTMAR project:

- 12 open-sea areas investigated using standardised fish monitoring methods. For these areas there were almost no earlier data (trawling data not applicable, as it targets only pelagic species).
- Preliminary results show that most valuable areas from fish protection point of view are the following:
 - Gretagrund: unique area in the Gulf of Riga; the biggest remaining spawning ground for the sea-spawning whitefish *Coregonus lavaretus*.
 - Suurkuiv and Soolakuiv: extraordinary high abundance of different species during the spawning period such as shorthorn sculpin *Myoxocephalus scorpius*. Specimen of gunnel *Pholis gunnellus* found from the digestive tract of shorthorn sculpin.

- Neugrund: very important feeding area for whitefish, high abundance on many other species.
- Snegi shallow: high abundance of many species including whitefish and sea trout.

DESIGNATION AND MANAGEMENT PLANNING OF MPAs

MPAs of Latvia: Designation of sites and development of management plans

by Edgars Bojars, BEF Latvia

Mr. Bojars gave an overview on sites proposed for designation based on LIFE Baltic MPAs project results as well as introduced principles of border delineation and management plans prepared for two potential MPA-s.

In December 2008, BEF submitted proposal for 7 MPAs (2 pSCI-s; 2 pSCI/SPA-s; 3 SPA-s) to the Latvian Ministry of Environment and State Environmental Service.

The main criteria used for border delineation included most valuable reef areas and high densities of internationally important bird species (MCC criteria), e.g.:
>1% of total biogeographic population or
4 times average density of the Baltic Sea population.

Management plans were made for West Coast of the Gulf of Riga and Nida-Perkone potential MPA-s. The results of the threat assessment show that current overall threat is insignificant for both sites. In future, attention has to be paid on potential activities: extraction of mineral resources in the W. Gulf of Riga, and wind parks and oil field exploitation in Nida-Pērkone.

Zoning was applied, defining 3 zones with different limitations. Nature reserve zone has most strict protection regime where all economic activities that could damage benthic habitats (reefs) are prohibited. In the nature park zone, which is meant mostly for bird protection, EIA is required for some activities. In the neutral zone, which includes the coastline and shipping corridors, there are no limitations for activities.

Conservation measures for marine sites include mainly measures related to scientific research, public awareness and education, improvement of legal base, regular monitoring, and administration and control of MPAs.

Discussion:

- The question about occurrence and protection of sandbanks in Latvian and Lithuanian waters was discussed. The definition of sandbanks allows some interpretation and decisions were made in each country separately. Estonia has a lot of sandbanks but their origin is land upheaval, differently from Latvian and Lithuanian coastal slope sandy areas that are extremely impacted by waves. It was decided not to designate those sandy areas as sandbanks because benthic diversity was lower than in the surrounding areas. There might be valuable sandbanks in offshore waters of Latvia and Lithuania, this must be still investigated. It was concluded that corrections in the current databases are needed concerning occurrence of sandbanks in Latvian and Lithuanian coastal waters.

Designation of marine protected areas in Lithuania

By Zymantas Morkvenas, BEF Lithuania

Mr. Morkvenas introduced the border changes of marine protected areas proposed in Lithuania based on results of the LIFE Baltic MPAs project and gave an overview on the conservation measures proposed in the MPAs.

The earlier border of the Palanga marine reserve was drawn based on 20m isobath. As a result of habitat mapping a more logical border was proposed. Palanga site is established for protection of reefs and waterbirds. The area includes also the discovered new reef subtype moraine ridges.

As in the Neriga site, as a result of habitat mapping, it was concluded that there were no sandbanks, the proposed pSCI now is much smaller than previous site and it is only for protection of twait shad *Alosa fallax*. However, this site remains important for birds, the proposed SPA area is much bigger than previous and will also cover the sandy slope not classified as sandbank.

Conservation measures for MPAs include modification of existing MPAs borders and statutes; some restrictions for fishing (local restrictions of gillnet-fishing during migration period of twait shad; restrictions for gill-nets fishing efforts, periods and mesh-size in birds staging areas; reduction of fishing intensity by supporting fishing activities outside coastal areas; reduction of by-catch limits for twait shad and common whitefish); support of alternative fishing tools (long lines and fyke nets); set-up of registration scheme for birds by-catch; restricting ship-anchoring in the areas of moraine ridges; involvement of marine biologists in development of accident emergency plans.

Discussion:

- Decrease of the pSCI has to be explained to the European Commission. SCIs and SPAs are evaluated separately, ETC does not see the increase of SPA.
- The moraine ridges might be similar to those occurring in Danish and German waters.

Site designation & planning management of MPAs in Estonia in the frame of projects Baltic MPAs & ESTMAR

by Merle Kuris, BEF Estonia

Ms. Kuris gave an overview on project areas of the projects Baltic MPAs and ESTMAR as well as introduced management plans that were prepared in the frame of Baltic MPAs project and will be prepared in ESTMAR project.

Estonia had marine Natura 2000 sites designated already in 2004 (mostly based on IBAs). In the frame of the LIFE project Baltic MPAs the existing borders were confirmed and no border changes were proposed.

ESTMAR project is investigating totally new open sea areas (still in territorial waters). Investigations are going on in 10 areas from which 5 most valuable will be proposed for designation. For these sites also draft protection rules and management proposals will be prepared.

In the Baltic MPAs project management plans were prepared for Küdema Bay and Väinamere MPAs.

As both areas are Limited Conservation Areas with a soft protection regime, the main conservation measure is EIA/Natura 2000 assessment that has to be carried out for all economic activities that can harm the species or habitats for which protection the area has been established. Other proposed conservation measures include strengthening surveillance, avoiding disturbance of seals and birds during breeding period; awareness raising (information on info stands etc.); management of coastal semi-natural habitats and reed cutting; reporting/monitoring of by-catch (which is required by fishery regulations but not functioning very well); supporting use of seal-safe fishing gear and making it obligatory in Väinamere region. Also monitoring programmes were proposed for the areas.

In ESTMAR project 6 more management plans will be prepared for the existing coastal MPAs based on data gathered in the frame of the LIFE project Baltic MPAs.

Discussion:

It was concluded that marine management plans are different from terrestrial ones because of different stakeholders and different scope of management/conservation measures, which do not include traditional direct management activities. However, management plans for MPAs are still needed because they give information about values and guidelines on how to manage the area to the MPA administration. Important is also the process of development of the management plan, including discussions with stakeholders and making agreements with them.

LIFE+ project FINMARINET - Inventories and planning for the marine Natura 2000 network in Finland

By Kirsi Kostamo, Finnish Environmental Institute, Finland

Ms. Kostamo introduced the new LIFE+ project “FINMARINET - Inventories and planning for the marine Natura 2000 network in Finland” (2009-2012).

The FINMARINET project started in beginning of 2009 and its main objective is to carry out inventories of the marine habitat types of the EU Habitats Directive along the Finnish coastline including the Finnish territorial waters and exclusive economic zone (EEZ). Mapping is made in seven marine NATURA 2000 sites (Bothnian Bay National Park, Islands of the Bothnian Bay, Kvarken Archipelago, Rauma Archipelago, Archipelago Sea, Tammisaari and Hanko Archipelago and Pohjanpitäjän Bay Marine Protected Area, the Archipelago of the Eastern Gulf of Finland) and in the adjacent EEZ waters. Additional objectives of the FINMARINET project are to propose implementation and possible extension of the Natura 2000 network in marine areas, to construct an Internet-based information service and to raise public awareness of marine nature. FINMARINET is coordinated by the Finnish Environment Institute (SYKE); other partners are Metsähallitus (Natural Heritage Services), Geological Survey of Finland, Åbo Akademi and Turku University. The total budget of the project is 3.4 Million €.

More information about the project can be found at

<http://www.environment.fi/default.asp?contentid=339233&lan=EN>

Discussion:

- There are needs for investigation of some more Finnish marine areas, especially in the EEZ. Kirsi plans to develop some new projects and wishes for cooperation are welcome!
- Birds are not investigated in FINMARINET project.
- In Finland Metsähallitus is responsible for management plans and is currently working on management plans for coastal areas.
- There are problems with stakeholders also concerning Finnish marine Natura 2000 sites (e.g. some stakeholders are against designation of narrow inlets).

Lessons learned – what can be modelled?

By Martin Isaeus, AquaBiota, Sweden

Mr. Isaeus introduced the possibilities, conditions and benefits of use of modelling.

Main conclusions:

- Modelled species/habitat maps are wanted! Managers of protected areas can use them for zoning, for communication with stakeholders etc.
- It is possible to make good models! (indicated by high model performance values)
- To be able to make good regional predictions the environmental layers (e.g. bathymetry) must be improved considerably! (poor external validation values)
- Simplified Wave Model (uses coastline and wave data only) used for modelling wave exposure in Estonia in frame of ESTMAR project is robust and relevant.
- Map quality should meet 1:50 000 scale for most management purposes.

Discussion:

- For fish distribution modelling data from gillnet surveys were used.
- Modelling gives quite good results for lower trophic levels but not so good for higher. Fish is depending too much on fishing mortality and predation. For mobile species (like porpoise) it is very hard to validate data. The result depends on amount of data used for modelling.

SEA USES AS COMPLEX PHENOMENA WITH CONFLICTING INTERESTS

Sea uses and conflicting interests

by Anda Ruskule, BEF-Latvia

Ms. Ruskule analysed in her presentation the main sea uses and existing or potential conflicts based on experiences from stakeholder communication and socio-economic impact assessment of establishment of MPAs (carried out in Latvia), as well as introduced maritime spatial planning and the new project BaltSeaPlan as potential solution.

The main conclusions:

- There are many different interests increasingly competing for the limited sea space, e.g. fishery, ports and shipping, tourism and recreation, military interest, extraction of mineral resources, use of wind energy, coastal development and also nature conservation. Some of them can well fit together but some can have conflicts when using the same sea space.
- Society sees MPAs as a big threat for economic activities.

- A potential solution is maritime spatial planning (MSP), which provides a holistic view on complex phenomena. Its main task is to balance different sea use interests stimulating sustainable development and to minimise/avoid negative effect on marine ecosystem and MPAs. It should be based on integrated coastal zone management elements: participatory approach, ecosystem approach, and addressing interaction between terrestrial and marine areas. MSP is a three-dimensional planning (horizontal, vertical and time dimension).
- In the EU only Germany and Poland have started to implement MSP in practice so far.
- BaltSeaPlan is a new project supported by the Baltic Sea Region Programme, which main goal is to support the process of developing, introducing and implementing MSP throughout the Baltic Sea in a coherent manner. It is implemented in 2009 – 2012 by 14 partners: Lead - Federal Maritime and Hydrographic Agency (BSH); scientific institutes, competent authorities and NGOs from Germany, Denmark, Sweden, Poland, Estonia, Lithuania and Latvia. More information on the project can be found at www.baltseaplan.eu.

Discussion on ideas for future projects:

- FP7-OCEAN 2010 call “The ocean of tomorrow” was discussed. It was concluded that this programme was for big scientific institutes and about real oceans (global level).
- Ideas for new projects:
 - Inventories in EEZ for new Natura 2000 sites (Latvia, Estonia); Lithuanian applied LIFE+ project;
 - Marine monitoring and biodiversity indicators;
 - Socio-economic value/evaluation of habitats/species (in Finland a rather scientific project on those issues is going on);
 - Maps of nature values (for all marine areas, not only for protected areas). It is needed for managers, who want things ready to use;
 - Vulnerability criterion, responses+effects (HELCOM);
 - Some Estonian territorial sea areas are still not inventorised, map of nature values would be needed for all marine areas, especially considering the rapid development of economic activities.
 - Conservation status assessment and thresholds for FCS;
 - Evaluation of dynamics and impact of changes;
 - Bird migration.

Report by Merle Kuris, BEF-Estonia (merle.kuris@bef.ee)