Decision IG.20/11

Regional strategy addressing ship's ballast water management and invasive species

The 17th Meeting of the Contracting Parties,

Desirous to address the risk arising from the introduction of invasive alien species through ships' ballast water, which has been recognized as one of the four greatest threats to the world's oceans and which can cause extremely severe and irreversible environmental, economic and public health impacts,

Recalling the objectives of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 and particularly its Article 13 whereby, to achieve these objectives, "*the Parties bordering enclosed and semi-enclosed seas, shall endeavor, taking into account characteristic regional features, to enhance regional co-operation, including through the conclusion of regional agreements"*,

Further recalling Decision IG.19/11 adopted at the 16th Ordinary Meeting of the Contracting Parties to the Barcelona Convention (Marrakesh, November 2009) to develop a regional strategy on ships' ballast water management in the Mediterranean within the Mediterranean Action Plan (MAP), and which encouraged the Mediterranean GloBallast Regional Task Force to endeavor to finalize such regional strategy as soon as possible, for possible adoption by the 17th Ordinary Meeting of the Contracting Parties to the Barcelona Convention;

Highlighting the relevance of the strategy to the process of gradual application by MAP of the ecosystem approach for the management of human activities in the Mediterranean region, that includes ecological objectives and operational objectives with associated indicators for the introduction of non indigenous species in the ecosystem,

Noting that the Mediterranean region is one of the six high priority regions included in the GEF/UNDP/IMO Project entitled *"Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water" ("GloBallast Partnerships" Project)*,

Further noting that the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) was designated as the Regional Coordination Organization (RCO) for the implementation of the GloBallast Partnerships Project in the Mediterranean in collaboration with the Regional Activity Centre for Specially Protected Areas (RAC/SPA),

Acknowledging the advanced status of implementation of the GloBallast Partnerships Project in the Mediterranean, and particularly the work undertaken by the Mediterranean GloBallast Regional Task Force, with the support of REMPEC, towards the development of a regional strategy on ships' ballast water management in the Mediterranean,

Considering that the 10th Meeting of the Focal Points of REMPEC endorsed and recommended the adoption of the *Mediterranean Strategy on Ships' Ballast Water Management*, including its Action Plan and Timetable, as well as the "General Guidance on the Voluntary Application of the D1 Ballast Water Exchange Standard by Vessels Operating between the Mediterranean Sea and the North-East Atlantic and/or the Baltic Sea" by the Contracting Parties to the Barcelona Convention,

Recognizing the dialogue established with other Regional Seas Agreements, in order to ensure efficient handling of the issue of ships' ballast water management and taking into consideration that the General Guidance Document was adopted by the Contracting Parties to the OSPAR Convention during their last Ministerial Meeting (September 2010), and by the Contracting Parties to the Helsinki Convention during the 32nd Meeting of the HELCOM Commission (March 2011);

Adopts the *Mediterranean Strategy on Ships' Ballast Water Management*, including its Action Plan and Timetable, as set out in Annex I to this Decision, and the "General Guidance on the Voluntary Application of the D1 Ballast Water Exchange Standard by Vessels Operating between the Mediterranean Sea and the North-East Atlantic and/or the Baltic Sea", as outlined in Annex II to this Decision, and agrees to the joint submission, with the other concerned Regional Seas Agreements, of the General Guidance Document to the Secretary-General of the International Maritime Organization (IMO);

Invites the Contracting Parties to take the necessary measures for its implementation;

Requests REMPEC and SPA/RAC to assist the Parties in its implementation.

ANNEX I

MEDITERRANEAN STRATEGY ON SHIPS' BALLAST WATER MANAGEMENT

MEDITERRANEAN STRATEGY ON SHIPS' BALLAST WATER MANAGEMENT

1. The present Strategy takes into account all relevant international, regional and sub-regional instruments and mechanisms, as well as all relevant Mediterranean action plans, policies and decisions, including Decision IG 17/6 of the Contracting Parties to the Barcelona Convention related to the implementation of the ecosystem approach adopted under the Barcelona Convention and its protocols (adopted at their 15th Ordinary Meeting (Almeria, Spain, 15-18 January 2008, UNEP (DEC)/MED IG.17)).

2. The Mediterranean Sea herewith refers to the Mediterranean Sea area as defined in Article 1 of the Barcelona Convention, i.e. the "*maritime waters of the Mediterranean Sea proper with its incorporated gulfs and seas, bounded to the west by the meridian passing through the Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar, and to the east by the southern limits of the Straits of the Dardanelles between Mehmetcik and Kumkale lighthouses*".

Definition

3. For the purpose of this present Strategy, the term "invasive alien species" means "Harmful Aquatic Organisms and Pathogens", as defined in Article 1.8 of the 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention).

General objective

4. The general objective of the present Strategy is to establish the framework for a regional harmonised approach in the Mediterranean on ships' ballast water control and management which is consistent with the requirements and standards of the BWM Convention, as outlined in its Article 13.3.

Introduction

5. Invasive alien species have serious economic, environmental and human health impacts and are now recognized as one of the greatest threats to biodiversity globally. In marine and coastal environments, invasive alien species have been identified as one of the four greatest threats to the world's oceans. Ships' ballast water is of particular concern as a vector of introduction of invasive alien species in the Mediterranean Sea because of the large quantities of ballast water coming from different marine environments around the world being discharged at Mediterranean ports. Ballast sediments are also of concern for management as they provide a substrate for a variety of marine species, notably dinoflagellates.

6. The 2004 BWM Convention provides a critically needed set of management tools to address the issue and calls for regional cooperation and harmonization of policies to attempt
solving this transboundary marine environmental issue. Although the BWM Convention has not yet entered into force, the national process of ratifications is underway in many countries. Meanwhile, voluntary measures complying with the requirements of the Convention are needed in order to minimize the introduction of invasive alien species in the Mediterranean Sea.

7. The present Strategy is composed of eight Strategic Priorities and of an Action Plan and Workplan/Timetable for its implementation.

Strategic Priority 1. Support international instruments developed to minimize the introduction of invasive alien species in the Mediterranean

8. Growing recognition of the impacts of invasive alien species has led to a widespread response to the issue, in the form of legal instruments as well as programmes aimed at developing practical, technical solutions. The Convention on Biological Diversity, 1992, (CBD) provides the basis for measures to protect biodiversity against invasive alien species (Article 8 h) and comprehensive Guiding Principles in this field have been adopted under this Convention in 2002[1].

[1] The Conference of the parties to the Convention on Biological Diversity adopted Guiding Principles for the Implementation of Article 8 (h). (COP 6 Decision VI/23, The Hague, 16-19 April 2002).

9. The International Maritime Organization (IMO), its member States and the maritime industry have been working on the issue of ships' ballast water introduction for more than twenty years, initially developing voluntary guidelines and then developing a legally binding international regime to meet the new challenges posed by the problem. In February 2004, these global efforts culminated with the adoption of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention). The Convention sets out strict treatment standards for ballast water discharges, which, when in force, will apply to different ships at different times depending on their construction date and their tanks' ballast water capacity. Additionally, the Convention provides guidance for the type approval of ballast water treatment systems and identifies detailed procedures to ensure that the environmental toxicity of ballast water is evaluated and minimized, resulting in safe discharges of treated ballast water. This is especially important when systems use chemical treatment methods.

- **The Contracting Parties to the Barcelona Convention support the work for the minimization of the introduction of invasive alien species being carried out by the relevant organisations and forums, particularly the work of the International Maritime Organisation (IMO) and are committed to take all appropriate actions toward the ratification of the BWM Convention for its entry into force as soon as possible.**

Strategic Priority 2. <u>Maintain capacity-building activities and initiatives in the Mediterranean region</u>

10. The implementation of the IMO /GEF /UNDP GloBallast Partnerships project (*Building Partnerships to Assist Developing Countries to Reduce the Transfer of Harmful Aquatic Organisms in Ships' Ballast Water*) was initiated in 2008. The GloBallast Partnerships builds on the pilot phase and will focus on the implementation of the BWM Convention by assisting countries to enact legal, policy and institutional reforms to minimize the impacts of invasive alien species transferred by ships. Under this project, a number of important activities and initiatives are being undertaken in the Mediterranean region, which significantly help develop and strengthen the expertise within the region and the capacity of the Mediterranean coastal States in the field of ballast water management. However, the lifetime of the GloBallast Partnerships Project is limited and the project is expected to terminate in 2014.

- **The Contracting Parties to the Barcelona Convention stress the need to continue efforts made in the region to enhance capacity building, knowledge transfer and training of personnel after the GloBallast Partnerships Project terminates, and to involve relevant international and regional co-operation mechanisms, non-governmental organisations and agencies for the continuation of the process initiated.**

Strategic Priority 3 <u>Develop advanced knowledge on environmental condition of the Mediterranean and ships' mediated introduction of invasive alien species</u>

11. The development and updating of knowledge in the field of ships' mediated introduction of invasive alien species in the Mediterranean is fundamental in order to have a sound scientific, technical and legal basis as a solid basis for management measures. Significant progress has been made to better understand the relation between maritime transport and invasive alien species introduction in the marine environment of the Mediterranean. Biodiversity impacts of species introduction and maritime traffic trends in the Mediterranean in the region have been identified and are outlined below.

12. **Research has shown that the Mediterranean marine ecosystems and resources have been and continue to be severely compromised by invasive alien species**, and remain at high risk of further invasion as maritime traffic escalates. Zenetos and et.al (2008) have reported 903 alien species in the Mediterranean basin[2] based on literature up to April 2008. The rate of biological invasions in the Mediterranean is estimated at one new species entry every nine days.

[2] A.Zenetos, E. Meriç, M. Verlaque, P. Galli, C.-F. Boudouresque, A. Giangrande, M. E. Çınar and M. Bilecenoğlu (2008), Mediterranean Marine Science 9/1, 119-165.

13. Of these species invasions, 21 percent are believed to have arrived with vessels, however many more have relied on the local shipping traffic for secondary spread within the Mediterranean region. Ballast water has been implicated in many serious invasions of the region including the Comb Jelly (*Mnemiopsis leidyi*), which has lead to fisheries collapse in the Black and Caspian Seas. The Mediterranean GloBallast Task Force produced a review of scientific and technical studies related to ships' ballast water and invasive alien species produced by research institutes and universities of the Mediterranean region. The review highlighted that while the introduction of invasive alien species is well documented in certain countries, there are important information gaps in certain areas of the Mediterranean.

14. **The Mediterranean is a major shipping transit route**. In 2006, around 10,000 mainly large vessels transited the area en-route between non Mediterranean ports. Merchant vessels operating within and through the Mediterranean are getting larger and carrying more trade in larger parcels. Vessels transiting the Mediterranean average 50,000 DWT and are, on average, over three times larger than those operating within the Mediterranean[3].

15. Overall vessel activity within the Mediterranean has been rising steadily over the past 10 years and is projected to increase by a further 18 per cent over the next 10 years. Transits through the Mediterranean are expected to rise by 23 per cent. Increases in vessel activity will be coupled with the deployment of ever larger vessels. Chemical tanker and container vessels will show the highest rates of growth in respect of port callings within the Mediterranean over the next ten years whilst increases in transits will be most pronounced in the product and crude tanker sector.

16. **Intra-Mediterranean traffic**. Seaborne trade between Mediterranean littoral States, which is relatively underdeveloped, represents 18 per cent of the total Mediterranean littoral States' trade. The top 20 Mediterranean port to port trade routes measured in terms of number of voyages are dominated by high frequency small size Intra Mediterranean passenger traffic. However, the top 20 transit routes through and voyages within the Mediterranean, measured by vessel capacity and therefore cargo volumes, are dominated by larger tanker, container and dry bulk vessels.

17. **The Mediterranean is both a major loading and unloading centre for crude oil.** Approximately 18 per cent of global seaborne crude oil shipments take place within or through the Mediterranean. North African ports in Libya, Algeria, Tunisia and Persian Gulf oil shipped via Egypt account for over 90 per cent of all crude oil loaded in the Mediterranean. Italy accounts for nearly half of all crude oil unloaded in the Mediterranean. Exports of crude oil from Black Sea ports averaging at over 100 million tonnes a year are expected to continue to rise, resulting in continued seaborne transits via the Istanbul Straits and increased use of eastern Mediterranean ports linked to new pipelines intended to bypass the Istanbul Straits. The resumption of Iraqi crude supplies via Ceyhan in Turkey and via Syrian ports will reverse the trend seen over recent years of declining crude exports from these ports.

18. The efforts initiated to compile relevant data and enhance the knowledge on the above issues are to be acknowledged, however, these efforts need to be strengthened with comprehensive species inventories, data on species present in ports and data related to maritime traffic in the region, as well as relevant oceanographic data. The compilation of comprehensive species inventories for individual ports plays a significant role in ballast water management. For a port to effectively manage the ballast water associated with its shipping movements, data must be available and complete from the local port as well as from the source ports for the ballast water being received. It is important that the methods and approaches used to compile a baseline list of species within a port are standardised among countries. Port Biological Baseline Surveys (PBBS) are in this regard, an important tool for knowledge management.

- **The Contracting Parties promote, individually or through regional co-operation, research and development programmes in the field of invasive alien species and ships' ballast water management, as means to enhance knowledge and help setting scientific grounds on which best measures on controlling the transfer of invasive alien species can be based**. **The Contracting Parties also agree that results of such scientific work should be made available to all interested public.**

[3] This paragraph as well as the following paragraphs describing the maritime traffic in the region are extracted from the Study of Maritime Traffic Flows in the Mediterranean Sea, Final Report, REMPEC (2008).

Strategic Priority 4. **Use risk assessment as a reliable tool to assist in ballast water management decision-making and in compliance, monitoring and enforcement procedures**

19. **Risk assessment and ballast water management.** Risk assessment can be helpful in ensuring that the provisions of the BWM Convention are applied in a consistent manner, based on scientifically robust groundwork. In particular, the IMO has developed Guidelines for the implementation of the BWM Convention under which risk assessment is needed. The Guidelines on Designation of Areas for Ballast Water Exchange (G14) are of particular relevance for the Mediterranean region, as these address the sea areas where a vessel cannot exchange its ballast water and where the port State may designate areas, in consultation with adjacent or other States, where a ship may conduct ballast water exchange. The IMO also recommends carrying out risk assessment when a Party, within waters under its jurisdiction, is granting exemptions to ships (G7 Guidelines for Risk Assessment under Regulation A4 of the BWM Convention).

20. Risk assessment is also essential to have a sound knowledge of the overall risks for introduction of invasive alien species associated with the maritime traffic in the Mediterranean region. When resources are limited, management actions such as compliance, monitoring and enforcement (CME) may be prioritized according to the higher risk areas or vessels.

21. **Biological invasion of ports.** Major shipping ports are often the first places where invasive alien species are introduced and become established. Port Biological Baseline Surveys (PBBS) are used to develop a baseline list of species – both native and non-native – that are present in a shipping port. Subsequent long-term monitoring regimes should be put in place to continue building an information base in this field and detect any new invasions. This data can be used to communicate risks to other shipping ports or countries, as appropriate, and provide an essential reference point for management of non-native species. As they target marine pests, PBBS can also help raise awareness of marine pest issues within the region. Most importantly, they allow any existing introductions to be recorded, tracked, and managed.

22. **Ports at risk of biologic invasion.** Some Mediterranean ports are more at risk of biological invasion as they are ports receiving greater volumes of ballast water originating from ports located outside the Mediterranean sea. These ports are the following: Arzew, Sidi Kerir Terminal, Algeciras, Tripoli, Eleusis, Ceyhan, Port de Bouc, Banias, Brindisi, and Bizerta. It has been estimated that 69% of the ballast water received by Mediterranean ports concerns three countries: Algeria, Egypt and Libya, as these countries host important oil terminals, where oil tankers arrive on ballast to load cargo. It has to be noted that the coast line of these three countries forms almost all the south coastline of the Mediterranean. In addition, it should be noted that once an invasive alien species is introduced in one port located in the Mediterranean Sea, there is a risk of secondary introduction of other ports located within the region[4].

- **The Contracting Parties consider risk assessments at national, sub-regional or regional level, as an appropriate tool to guide on ballast water management measures and are committed to establish surveys and monitoring programmes including reporting and alert mechanisms.**

Strategic Priority 5. **Decide upon voluntary regional arrangements in the Mediterranean and ensure sub-regional and national strategies are in line with these**

23. Given the transboundary nature of invasive alien species issue, it must be recognized that individual countries cannot effectively address this concern on their own. A harmonized regional ballast water management regime has to be agreed upon by the Mediterranean coastal States, which takes into account the maritime traffic lanes in the region and the origin and distribution of ballast water in the ports of the region, as well as the particular geographical constraints of the area and associated scientific and oceanographic data.

[4] This section is based on the result of a study on ballast water origins and volumes in the Mediterranean, which was carried out by Mr. Bouteville for REMPEC in 2008, using the Study of Maritime Traffic Flows in the Mediterranean Sea, Final Report, REMPEC (2008).

24. As the BWM Convention is not yet in force, voluntary measures are called for in order to address the ships' ballast water mediated introduction of invasive alien species in the Mediterranean Sea. In addition, harmonised procedures incorporated in a compliance, monitoring and enforcement (CME) system should be implemented by all countries of the region. Sub-regional approaches within the Mediterranean Sea area (e.g. the BWM Sub Commission in the Adriatic Sea) are also encouraged and existing sub-regional agreements in the Mediterranean region should consider integrating BWM issues in their work, in coherence with the regional approach adopted. National strategies established by Mediterranean coastal States should take into account and be consistent with the policy and arrangements agreed upon at sub-regional and regional levels.

- **The Contracting Parties to the Barcelona Convention work collaboratively to adopt regional voluntary arrangements concerning ballast water management in the Mediterranean region, consistent with the requirements and standards set in the BWM Convention.**

Strategic Priority 6. Consider other regional seas strategies and initiatives

25. Harmonization of approaches to ballast water management across regional seas is essential to help achieve the goals of the BWM Convention. Communication and alignment with neighbouring regions and their BWM structures (e.g. PERSGA Strategic Action Plan for the Red Sea and Gulf of Aden, the Black Sea Strategy) is needed to ensure consistency between the regimes, and also to promote sharing of information between these interlinked marine regions. A dialogue should also be established with other relevant regional seas Secretariats such as the OSPAR Commission for the North-East Atlantic, which agreed in June 2007 on "General Guidance on the Voluntary Interim Application of the D1 Ballast Water Exchange Standards in the North-East Atlantic", the Helsinki Commission (HELCOM) for the Baltic Sea, which developed a roadmap towards a harmonised implementation of the IMO BWM Convention, and the ROPME Sea Area which recently adopted regional measures on ballast water management exchange.

- **The Contracting Parties to the Barcelona Convention are committed to enhance and maintain cooperation with the neighbouring regions of the Mediterranean Sea and with other relevant regional agreements in order to ensure that the measures adopted are consistent with other ballast water management regional arrangements.**

Strategic Priority 7. Keep the Strategy and Action plan under review and assess their implementation progress

26. The Strategy and Action Plan should be subject to periodic review to take into account emerging issues, outcomes of research and development (R&D) activities and experience gained from its operation and implementation.

27. Periodic gatherings of representatives of the regional co-ordinating mechanism and Secretariats should be arranged to assess progress with implementation of the various regional strategies and arrangements and facilitate reaching a harmonised approach at the global level.

- **The Contracting Parties to the Barcelona Convention call for regular meetings with the purpose of reviewing and evaluating the ongoing relevance of the Strategy, and overall effectiveness of activities carried out under the Action Plan, and that the work accomplished in the various regional seas regarding the management of ballast water is on the agenda of meetings and forums gathering the various regional Secretariats and agreements.**

Strategic Priority 8. **Work on the identification of adequate resources to implement activities under the Strategy and Action Plan**

28. The identification and securing of adequate resources for implementing the Strategy and Action Plan should be investigated from various sources, including IMO, REMPEC, and other MAP Regional Activity Centres, regional and international shipping and port industries, bilateral and multilateral donors and technical cooperation programmes.

- **The Contracting Parties to the Barcelona Convention long-term objective is to ensure the sustainability and continuity of activities from self-financing sources within the region.**

Action Plan for the Implementation of the Regional Strategy on Ships' Ballast Water Management

The present Action Plan identifies eight main measures to be taken at regional level, sub-regional or national level in accordance with the Strategic Priorities, and include a workplan/ timetable for their implementation (**Annex I**).

Action 1. Ratify the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention)

The urgent ratification of the BWM Convention is called for in order that, when it enters into force, the treatment standards for ballast water discharges become applicable to ships. To help the process out at national level, national policy initiatives preparing the ground and leading to the ratification should be undertaken.

The Contracting Parties to the Barcelona Convention, agree

a) to form a national policy working group to lead the process towards the ratification of the BWM Convention;

b) to draft the instrument of ratification for adoption through the proper channels with their respective Government system and;

c) to develop national legislation including fines for violators, which will give effect to the BWM Convention once ratified, as well as secondary regulations and technical arrangements for its enforcement.

Action 2. Adopt harmonised arrangements for ballast water exchange in the Mediterranean region

The harmonized arrangements are based on the relevant components and requirements of the BWM Convention. Until such a time as the Convention has entered into force, the arrangements should remain an interim voluntary instrument. This does not prejudice the right of any Contracting Party to determine special requirements in certain areas under their jurisdiction, in conformity with international law.

The Contracting Parties to the Barcelona Convention, agree

a) to adopt as soon as possible harmonized voluntary arrangements for ballast water exchange in the Mediterranean region (**Annex II**); and

b) to notify all interested parties of the adoption of harmonized voluntary arrangements for ballast water exchange in the Mediterranean sea through notices to shipping and instructions to surveyors.

Action 3 Establish a solid Compliance, Monitoring and Enforcement (CME) system in the Mediterranean region

In association with the development and implementation of the harmonized regional ballast water management regime, a generic compliance, monitoring and enforcement system (CME) needs to be developed to ensure compliance with the measures proposed within the regime. The CME system should incorporate the following:

1. requirement for ships to collect and record information about their BWM practices (i.e. uptake, management en route and discharge);

2. means for ships to transmit this information to the Port States' BWM regulatory authority, and to subsequently receive directions from them;
3. provision for examination/auditing of the ships' official log books or other official records to ascertain compliance with the BWM requirements of the Port State;
4. ability by the appropriate authority to obtain ballast water and sediment samples and carry out any necessary testing;
5. legal provision for enforcement measures to be applied for non-compliance with the required BWM requirements, and provisions for applying sanctions to violations; and
6. effective communication arrangements on a regional level to ensure proper tracking of violations and exchange of experience during the application of the CME system on a national level.

The proposed CME system for the region is attached as **Annex III**.

The Contracting Parties to the Barcelona Convention, agree

a) to adapt their existing Port State Control & CME systems to integrate the harmonized BWM CME procedures; and

b) to establish and maintain up to-date a regional communication system possibly within a clearing house mechanism (CHM), to allow exchange of experience and tracking of violations utilizing existing control agreements such as the Paris MoU and the Mediterranean MoU on Port State Control.

Action 4. **Establish a survey, biological monitoring and risk assessment system for Mediterranean ports**

The development of a uniform regional biological monitoring system for Mediterranean ports is crucial to understanding the nature of what is being managed, and supporting the methods through which the management is implemented. The process of developing this system should be composed of the following elements:

- Collection of data (biological, physical, chemical) on port environments;
- Reviewing best practices, existing literature and approaches, in order to agree on common approaches/protocols;
- Identifying biological data requirements for proposed risk assessment and management measure (non-indigenous species, invasive alien species (IAS));
- Identifying long-term monitoring procedures (parameters, frequency);
- Reviewing existing monitoring programmes, if any, to see if these meet common approaches/protocols;
- Preparing common implementation guidelines on Port Biological Baseline Surveys and Monitoring.

In some areas of the Mediterranean region, countries may identify sub-regional mechanisms for collaboration on surveys, monitoring and risk assessment. For example, in the Joint Commission for the protection of the Adriatic Sea waters and coastal areas, Croatia, Italy, Slovenia and Montenegro have formed the Ballast Water Management Sub-Commission (BWMSC) which focus on the Adriatic Sea area, and through which information on port surveys and IAS management is being shared.

The Contracting Parties to the Barcelona Convention, agree

a) to develop a regionally standardised biological sampling and monitoring protocol for use of Contracting Parties in building the necessary biological and environmental databases to support the IAS management objectives;

b) to collaborate, preferably following sub-regional approaches where relevant, on biological survey and monitoring activities, including to promote and ensure sharing of technical capacity, resources and results;

c) to seek institutional support at the national level to conduct port biological surveys and plans for monitoring, as part of their national strategy for ballast water and IAS management;

d) to adapt and use the regional CHM for sharing of data related to port surveys and ongoing biological monitoring; and

e) that a regional-level risk assessment should be produced based on the information made available through biological surveys, as well as the shipping movement and ballast water discharge databases.

Action 5. **Enhance expertise; facilitate knowledge transfer and capacity building in the Mediterranean region**

Given the absence of national legislation and technical initiatives related to ballast water management in several Mediterranean States, an effective Capacity Building programme should be established to assist in carrying out activities which will assist in implementing the Strategy and Action Plan. Capacity building activities should cover the following:

- identification of National Lead Agencies and relevant stakeholders for ballast water issues and formation of cross-sector / inter-ministerial working groups and committees;
- communication and awareness raising activities;
- port biota baseline surveys, monitoring and ballast water risk assessment;
- research and development projects;
- drafting of national ballast water legislation and regulations;
- compliance monitoring and enforcement;
- developing national ballast water management strategies and action plans; and
- developing self-financing mechanisms.

Training activities should be organised both at regional and sub-regional level taking into consideration similarities such as the geographical areas concerned (i.e. Eastern and Western Mediterranean countries), the language, the status of ratification etc.). In addition, these training activities should be carried out using the “Train the Trainer approach”, where appropriate, and used by countries to replicate these training activities at national level.

The Contracting Parties to the Barcelona Convention, agree

a) to investigate the possibility of including training programmes and other capacity-building activities in the regular programme of work of the relevant Regional Activity Centres of MAP;

b) to seek and secure support, individually or through REMPEC, from the IMO Technical Cooperation Division (TCD), or other international organizations for national, sub-regional or regional training courses and other capacity-building actions in support of activities of the Action Plan;

c) to disseminate protocols and tools for standardization of technical approaches that could be used to conduct regional and national activities;

d) that countries with specific expertise on ballast water management related activities help organise national, sub-regional or regional training sessions; and

e) to replicate such training on a national level through the establishment of a national training programme on ballast water management activities.

Action 6. **Enhance public awareness on ships' ballast water and invasive alien species issues**

With a view to alert general and targeted public to the risks associated with introducing non-indigenous marine species in the marine environment, and in this way add to the efforts towards preventing and controlling the introduction of IAS into the Mediterranean Sea, coastal States and the maritime industry should involve themselves in endeavors to raise knowledge and awareness on the subject. General or specific awareness materials, according to the type of public targeted, are to be used when they exist, or be developed, preferably in the local language of their respective countries. Awareness materials already prepared by IMO-Globallast are available for download from its website[5] including brochures, posters and other educational documents and tools. Where possible, collaborative partnerships will be forged between countries, and with NGO's and other public interest groups to aid in organising targeted public awareness campaigns.

The Contracting Parties to the Barcelona Convention, agree

a) to use IMO Globallast Public awareness materials and translate these to local languages for dissemination at national level;

b) to carry out national seminars and workshops to raise awareness among the various stakeholders involved; and

c) to develop local case studies that may be used effectively for awareness and leveraging support within the Mediterranean region and its sub-regions.

Action 7. **Set-up a web-based Mediterranean mechanism for exchanging information**

To facilitate information exchange related to ballast water management issues among the Contracting Parties, an information exchange network is considered necessary in the Mediterranean region. This network will facilitate communications with and between countries, as well as function as a clearing house mechanism (CHM) for data and ballast water management related information within the region.

The Contracting Parties to the Barcelona Convention, agree

a) to establish a web based Regional Information System based on the structure outlined in **Annex IV**;

b) to explore possible options and functionalities of the system and decide upon the body responsible for coordinating the development of the web-based Regional Information System;

c) to set-up a Steering Committee for this project; and

d) to explore possible options and decide upon the body responsible for hosting and maintaining the web-based Regional Information System.

Action 8. **Incorporate the Action Plan evaluation within the Barcelona Convention reporting system and procedure**

The Action Plan is subject to periodic review to accommodate any developments on ballast water management at the regional or global level and adjusted / updated accordingly. The implementation of the Action Plan should be carried out under the coordination of REMPEC as a continuation of the present efforts of the Centre devoted to enhance expertise in the region on ballast water management issues. In addition, actions taken on a national level should be evaluated periodically under the Barcelona Convention to determine their effectiveness.

[5] http://globallast.imo.org/index.asp?page=AwarenessMaterials.htm&menu=true

The Contracting Parties to the Barcelona Convention, agree

a) to mandate REMPEC to coordinate and assist with the implementation of the Action Plan in the region, in collaboration with the Regional Activity Centre for Specially Protected Areas (RAC/SPA) where relevant;

b) that REMPEC will inform its meetings of Focal Points, which take place every two years, on the status of implementation of the Action Plan, for subsequent transmission to the Ordinary Meetings of the Contracting Parties to the Barcelona Convention; and

c) to provide REMPEC with the relevant information on national-based activities with the purpose of reviewing and evaluating the ongoing relevance and overall effectiveness of activities carried out under the Action Plan.

Annex 1

Mediterranean Strategy and Action Plan on Ships' Ballast Water Management

Work Plan and Implementation Timetable

Action Points	Activities	Year				
		2011	2012	2013	2014	2015
1. Ratify the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention).	**a)** Form a national policy working group to lead the process towards the ratification of the BWM Convention.	✔	✔			
	b) Draft the instrument of ratification for adoption through the proper channels with the Government system.	✔	✔			
	c) Develop national legislation including fines for violators, which will give effect to the BWM Convention once ratified, as well as secondary regulations and technical arrangements for its enforcement.	✔	✔	✔	✔	✔
2. Adopt harmonised arrangements for ballast water exchange in the Mediterranean region.	**a)** Adopt harmonized voluntary arrangements for ballast water exchange in the Mediterranean region.	✔				
	b) Notify all interested parties of the adoption of harmonized arrangements for ballast water exchange in the Mediterranean region through notices to shipping and instructions to surveyors.	✔				

Action Points	Activities	Year				
		2011	2012	2013	2014	2015
3. Establish a solid compliance Monitoring and Enforcement (CME) system in the Mediterranean region.	**a)** Adapt existing Port State Control & CME systems to integrate the harmonized BWM CME procedures.	✔	✔	✔		
	b) Establish and maintain a regional communication system possibly within a clearing house mechanism (CHM), to allow exchange of experience and tracking of violations utilizing existing control bodies such as the Paris MoU on Port State control and the Mediterranean MoU on Port State Control.		✔	✔	✔	✔
4. Establish a survey, biological monitoring and risk assessment system for Mediterranean ports.	**a)** Develop a regionally standardised biological sampling and monitoring protocol for use of Contracting Parties in building the necessary biological and environmental databases to support the IAS management objectives.		✔	✔		
	b) Collaborate, preferably following sub-regional approaches where relevant, on biological survey and monitoring activities, including to promote and ensure sharing of technical capacity, resources and results.	✔	✔	✔	✔	✔
	c) Seek institutional support at the national level for port biological surveys and monitoring, as part of the national strategy for ballast water and IAS management.	✔	✔	✔	✔	✔
	d) Adapt and use the regional CHM for sharing of data related to port surveys and ongoing biological monitoring.		✔	✔	✔	✔
	e) Produce a regional-level risk assessment based on the information made available through biological surveys, as well as the shipping movement and ballast water discharge databases.		✔	✔		

Action Points	Activities	Year				
		2011	2012	2013	2014	2015
5. Enhance expertise; facilitate knowledge transfer and capacity building in the Mediterranean region.	**a)** Investigate the possibility of including training programmes and other capacity-building activities in the regular programme of work of the relevant Regional Activity Centres of MAP.	✔	✔			
	b) Seek and secure support, individually or through REMPEC, from the IMO Technical Cooperation Division, in support of activities of the Strategy and Action Plan.	✔	✔	✔	✔	✔
	c) Disseminate protocols and tools for standardization of technical approaches to regional and national activities.	✔	✔	✔	✔	✔
	d) Countries with specific expertise on ballast water management related activities help organise national, sub-regional or regional training sessions.	✔	✔	✔	✔	✔
	e) Replicate such training on a national level through the establishment of a national training programme on ballast water management activities.		✔	✔	✔	✔
6. Enhance public awareness on ships' ballast water and invasive alien species issues.	**a)** Use IMO Globallast Public awareness materials and translate these to local languages for dissemination at national level.	✔	✔	✔	✔	✔
	b) Carry out national seminars and workshops to raise awareness about the issue among various stakeholders.	✔	✔	✔	✔	✔
	c) Develop local case studies that may be used effectively for awareness and leveraging support within the Mediterranean region and its sub-regions.	✔	✔	✔	✔	✔

Action Points	Activities	Year				
		2011	2012	2013	2014	2015
7. **Set-up a web-based Mediterranean mechanism for exchanging information.**	**a)** Explore possible options and functionalities of the system and decide upon the body responsible for coordinating the development of the web-based Regional Information System.	✔	✔			
	b) Set-up a Steering Committee for this project.		✔			
	c) Explore possible options and decide upon the body responsible for hosting and maintaining the web-based Regional Information System.		✔	✔		
	d) Have the Regional Information System operational.				✔	✔
8. **Incorporate the Action Plan evaluation within the Barcelona Convention reporting system and procedure.**	**a)** Mandate REMPEC to coordinate and assist with the implementation of the Action Plan in the region, in collaboration with the Regional Activity Centre for Specially Protected Areas (RAC/SPA) where relevant.	✔				
	b) REMPEC to inform the Meeting of Focal Points, which takes place every two years, on the status of implementation of the Action Plan, for subsequent transmission to the Ordinary Meetings of the Contracting Parties to the Barcelona Convention.			✔		✔
	c) Forward to REMPEC the necessary information with the purpose of reviewing and evaluating the ongoing relevance and overall effectiveness of on national-based activities carried out under the Action Plan.	✔	✔	✔	✔	✔

Annex 2

Harmonized voluntary arrangements for ballast water management in the Mediterranean region

Introduction

The harmonised voluntary interim regime is being submitted under paragraph 3 of Article 13 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (Ballast Water Management Convention) whereby Parties with common interest to protect the environment, human health, property and resources, particularly those bordering enclosed or semi-enclosed seas, shall endeavour to enhance regional cooperation, including through the conclusion of regional agreements consistent with the Convention. The proposed arrangements take into account other adopted regional policies on ship's ballast water exchange.

The regime forms also part of a regional strategy on ships' ballast water management, developed within the Mediterranean Action Plan[6], with the technical support of the GloBallast Partnerships Project[7]. It is based on the requirements of the Ballast Water Management Convention and is being proposed as an interim regime. The regime is voluntary; therefore, ships entering the Mediterranean Sea area are encouraged to apply these guidelines on a voluntary basis as from [**XXXXXXXX**].

This regime will no longer apply when a ship meets the ballast water performance standard contained in regulation D-2 of the Convention, or when the Convention comes into force and a ship has to apply the D-2 standard in accordance with the application dates set out in regulation B-3 of the Convention.

Definitions

Convention means the International Convention for the Control and Management of Ships' Ballast Water and Sediments; and is hereunder referred to as "Ballast Water Management Convention";

Mediterranean Sea area means the Mediterranean Sea proper including the Gulfs and seas therein with the boundary between the Mediterranean and the Black Sea constituted by the 41° N parallel and bounded to the west by the Straits of Gibraltar at the meridian of 005°36' W;

Black Sea area means the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41°;

Red Sea area means the red sea proper including the Gulfs of Suez and Aqaba bounded at the south by the rhumb line between Ras si Ane (12°28'.5 N, 043°19'.6 E) and Husn Murad (12°40'.4 N, 043°30'.2 E).

1. Ships entering the waters of Mediterranean Sea area from the Atlantic Ocean (Straits of Gibraltar), or from the Indian Ocean through the Red Sea (Suez Canal) or leaving the waters of the Mediterranean Sea area to the Atlantic Ocean (Strait of Gibraltar) or to the Indian Ocean through the Red Sea (Suez Canal), should:

(a) undertake ballast water exchange before entering the Mediterranean Sea area, or after leaving the Mediterranean Sea area, as applicable, according to the standard set out in the D-1 Standard of the Ballast Water Management Convention, and at least 200 nautical miles from the nearest land and in waters at least 200 meters in depth[8];

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[6] The Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) are the following: Albania, Algeria, Bosnia & Herzegovina, Croatia, Cyprus, Egypt, The European Community, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Morocco, Montenegro, Slovenia, Spain, Syria, Tunisia and Turkey.

[7] GEF / UNDP / IMO project "Building partnerships to assist developing countries to reduce the transfer of harmful aquatic organisms in ship's ballast water (Globallast Partnerships)".

[8] These geographical parameters are those set by Regulation B-4.1.1 of the Ballast Water Management Convention.

(b) in situations where this is not possible, either due to deviating the ship from its intended voyage or delaying the ship, or for safety reasons, such exchange should be undertaken before entering the Mediterranean Sea area, or after leaving the Mediterranean Sea area, as applicable, according to the standard set out in the D-1 Standard of the Ballast Water Management Convention, as far from the nearest land as possible, and in all cases in waters at least 50 nautical miles from the nearest land and in waters of at least 200 meters depth[9].

2. Ships should, when engaged in traffic between:

i. ports located within the Mediterranean Sea area; or
ii. a port located in the Black Sea area and a port located in the Red Sea area; or
iii. a port located in the Black Sea and a port located in the Mediterranean Sea area; or
iv. a port located in the Red sea area and a port located in the Mediterranean Sea area.

(a) undertake ballast water exchange as far from the nearest land as possible, and in all cases in waters at least 50 nautical miles from the nearest land and in waters of at least 200 meters depth. The areas, one of which being unfit for ballast water exchange due its size, where such requirements are met in the Mediterranean Sea area, appear in the map provided in **Appendix**;

(b) in situation where this is not possible either due to deviating the ship from its intended voyage or delaying the ship, or for safety reasons, exchange of ballast water should be undertaken in areas designated by the port State for that purpose[10];

and, if a port State decides to designate a ballast water exchange areas,

(c) such areas shall be assessed in accordance with the *Guidelines on designation of ballast water areas for ballast water exchange* developed by the International Maritime Organization[11], and in consultation with adjacent States and all interested States.

3. Sediments collected during the cleaning or repairing operations of ballast tanks should be delivered in sediment reception facilities in ports and terminals, according to Article 5 of the Ballast Water Management Convention, or be discharged beyond 200 nautical miles from the nearest land of the coastline when the ship is sailing in the Mediterranean Sea area.

4. Exemptions can be granted to a ship on a voyage between specified ports or locations within the Mediterranean Sea area, or to a ship operating exclusively between specified ports or locations within the Mediterranean Sea area. These exemptions are to be granted according to Regulation A-4 1 of the Ballast Water Management Convention and based on the *Guidelines for risk assessment under regulation A-4 of the BWM Convention* developed by the International Maritime Organization[12].

5. As per Regulation B-4 of the Ballast Water Management Convention, if the safety or stability of the ship is threatened by a ballast water exchange operation, this operation should not be undertaken. The reasons should be entered in the ballast water record book and a Report should be submitted to the maritime authorities of the Port of destination.

6. Each vessel calling at a port within the Mediterranean Sea area is required to have on board a Ballast Water Management Plan complying with requirements of the *Guidelines for Ballast Water Management and Development of Ballast water Management Plans* developed by the International Maritime Organization[13] and to keep a record of all ballast water operations carried out.

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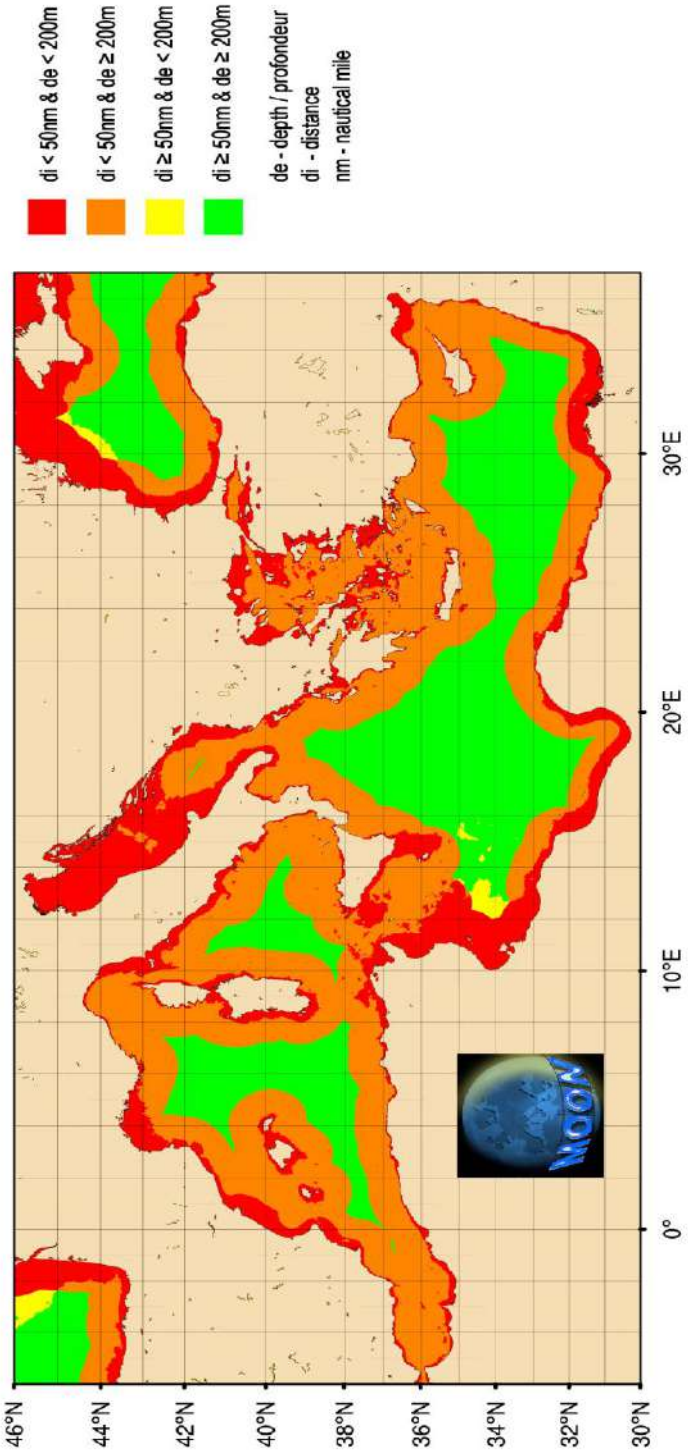
[9] These geographical parameters are those set by Regulation B-4.1.2 of the Ballast Water Management Convention.
[10] Regulation B-4.2 of the Ballast Water Management Convention.
[11] Guidelines on Designation of Ballast Water Areas for Ballast Water Exchange (G14), adopted on 13 October 2006. Resolution MEPC.151(55).
[12] Guidelines for Risk Assessment under Regulation A-4 of the BWM Convention (G7), adopted on 13 July 2007. Resolution MEPC.162(56).
[13] Guidelines for Ballast Water Management and Development of Ballast Water Management Plans (G4), adopted on 22 July 2005. Resolution MEPC.127(53).

Appendix

Areas in the Mediterranean Sea meeting the requirements set out in Regulation B-4.1.2 of the Ballast Water Management Convention (at least 50 nautical miles from the nearest land in waters of at least 200 meters depth)



Annex 3

Harmonized Procedures for a Regional Compliance Monitoring and Enforcement System

Introduction

1. The invasion of alien species into new marine environments through ships' ballast water and sediments consist one of the greatest threats for the coastal and sea ecosystems. It is estimated that 3-5 billion tonnes of ballast water are carried annually by ships worldwide. While ballast water is of high importance to the operation of a ship, it is, at the same time, a great environmental threat due to the fact that over 7000 kinds of different microbes, plants and animals are being transferred worldwide every year. The introduction of the above-mentioned organisms into a new marine ecosystem may disturb its balance and affect the economic activities mainly, in the sectors of fishery and tourism, and it may cause illnesses or even death to human populations.

2. It is a matter of high priority that a State develops firstly compliance monitoring and enforcement measures (CME) in line with port State control guidelines developed by IMO[14], and secondly includes research and constant monitoring measures, with view to developing sufficient knowledge concerning the introduction of new organisms in terms of types, ports of origin and possible effect on the local marine environment, which will aid the risk assessment process and refine any CME requirements This information is especially important when interim measures are being considered in order to mitigate the risk of new invasions.

3. Effective communication arrangements should be established on the regional level to ensure proper tracking of violation and the exchange of experience during the application of the CME.

A. Aims of a Ballast Water Compliance Monitoring and Enforcement (CME) System.

4. A CME is the essential component of the overall Ballast Water Management regime or National Strategic Framework designed to assess whether or not a ship has met the IMO Convention's and ports state's BWM requirements, and where necessary, enforce these requirements. There are various mechanisms which a competent authority can use to satisfy itself that the rules and requirements are being met. These may involve sampling or testing, auditing of records, observation or any other action or a combination of these actions and may vary from one country or region to another. The CME will also change in time when the BWM Convention is ratified.

5. A Ballast Water CME System aims at two things:

1. assess the ship's compliance with the requirements of Ballast Water Management Convention; and

2. gather data from the ship (such as the port of origin of ballast water, ballast water treatment regime, volume of untreated water to be discharged, where and when the discharge is likely to take place, amongst others) so that the port State, in the interim period prior to the BWM Convention coming into, force can:

- identify the risk of harmful aquatic organisms being introduced into an area through the ballast water tanks of a ship ;
- undertake risk assessments for the interim management of the risks posed by ballast water as a vector for the movement of non-indigenous species; and,
- Identify phytoplankton toxic organisms or other organisms that could be dangerous to public health (e.g. fish-shell toxins) and potentially be imported into the region through ballast water, and analysis of their potential effects (ecological and socio-economic).

6. The collection of this data after the BWC comes into force will also contribute to the formation and development of exemptions and additional measures.

[14] These guidelines are expected to be finalized by IMO during 2012.

7. In addition, in order to undertake risk assessments and decide upon management measures, a CME should be backed up with research on:

- the distribution of harmful aquatic organisms (native, non native cryptogenic) in a port or a sea area.
- gathering data on species in the port of origin of ballast water being discharged in their ports.

B. Components of a Ballast Water Compliance-Monitoring and Enforcement System.

i. Actions by Competent National Authorities

8. The competent Port State Authorities may sample or require samples of ballast water and sediments as part of port State Control enforcement of the BWM Convention, once the Convention has entered into force. It should be noted that guidance on port State control for the BWM Convention is being developed at the present time at the IMO. Port State control is likely to take the form of an initial check of the documentation, the certification of the equipment and the state of the equipment. This will only be backed up with indicative analysis or full sampling if the port State control Officer suspects that there is a problem and cannot find clear grounds in the initial inspection that the ship does not comply with the BWM Convention. Additionally, the port State may wish to target the ship due to previous issues or reports from third countries. Work is being completed at IMO on when and how indicative analysis/full scale testing should be undertaken.

9. Additionally competent National Authorities may require or ask vessels to provide information on exchange or samples in order to collect data for research undertaken to mitigate risk. This can be done on a ballast water reporting form which can be used to check if the ship has applied any interim management requirements set by the port State. However, unless the collection of this information is enshrined in local or national regulations, this submission of information or access to the ship to take samples cannot be made mandatory. It should be noted that there is no requirement to report within the IMO Ballast Water Management (BWM) Convention.

ii. Sample Analysis of Ballast water to check that the D-1 Standard has been met

10. Relative simple and quick salinity tests or other indicators of exchange (e.g. Coloured Dissolved Organic Matter), may be able to verify if exchange has been performed (D1-standards) and the ballast water was sourced from the location reported by the ship, or not.

11. However, this is only an indicator and should not be relied upon as the sole basis for enforcement action, as ballast water exchange in specific sea areas has limitations with respect to the safety and stability of the ship and the time needed to exchange water to meet the requirements of the BWM Convention's D-1 Standard (ships may not be able to complete exchange during very short voyages). In such cases the ship should not be penalised for not exchanging their ballast water to the BWM Convention's standards.

iii. Sample Analysis of Ballast water to check that the D-2 Standard has been met

12. In case that the Port State authority wants to check if the vessel is in compliance with the D-2 standard of the BWM Convention, then detailed sampling and testing for compliance with the D-2 Standard should be performed. Guidelines on sampling were developed under the aegis of IMO, namely the "Guidelines for Ballast Water Sampling (G2)", and further guidance is being developed by the same organisation at the present time on indicative analysis (methods of analysing ballast water quickly), which would speed up the sampling and analysis process.

13. If port State Control identifies that sampling and analysis of ballast water and sediments samples is needed, specialist experts such as marine scientists and technicians, who have the appropriate training needed to work onboard ships, should undertake this. Therefore, arrangements with an accredited technical institute/ university or with an accredited laboratory to carry out the analysis may be required. Moreover, the most critical aspect of such analysis is the number of organisms in the discharge and the organisms' viability, however, it is important to highlight that this

sampling and analysis of organisms in the ballast water could be difficult to accomplish without delaying a ship especially in remote ports.

14. During the sampling, analysis of the following suggested parameters should be taken into account:

1. Bacteria and other pathogens in the D-2 Standard;
2. Number of organisms >50 μm , specifically checking of viability of species; and,
3. Number of organisms <50 and >10 μm, specifically checking of viability of species.

15. The sampling and analysis of ships' ballast water should follow standardized official methods, some of which are still in development. This is important to assure the quality of the results globally and will provide support to any enforcement action.

iv. Sediments and ships ballast water tanks being cleaned or repaired

16. According to Article 5 of the Convention, Parties should designate those ports and terminals where cleaning or repair of Ballast tanks occurs, so that adequate facilities will be provided with the entry into force internationally of the BWM Convention for the reception of sediments from ships calling at those ports of terminals, taking into account the respective guidelines being developed by the IMO. Countries in the region are invited to provide information on the availability of port reception facilities for sediment, so cleaning or repair of ballast tanks can occur in Mediterranean Ports.

v. Other Research

17. In order to help risk assessments for the development of interim measures, additional measures or exemptions, information should be collected on the biology and physicochemical properties of water and sediments in ports (port of departure and port of arrival). In case that this isn't feasible in an area, any available published information should be reviewed. Furthermore, this monitoring should be linked with an alert system so that ships taking up ballast water in an area of concern can be subjected to appropriate emergency ballast water management methods, depending on the nature of the risk that has been identified.

18. Any observation of new invasive alien species should be shared with other port States within the region and added to relevant global databases on the invasion of alien species. This will also help the international shipping industry and Port Authorities to be informed on any increase of invasive alien species in certain areas and to enable the authorities in the area to notify ships with additional information on pertinent ballast water management.

C. Enforcement measures and possible types of violations.

19. Enforcement measures should be applied in case it is established that a ship is non-compliant, i.e. the ship is in violation of the BWM requirements of the BWM Convention and/or any other requirements of the port State, such as ballast water emergency measures, ballast water exchange zones or additional measures (given that such requirements have been communicated to the ship before arrival by the Port State).

20. In the event that samples are found not to meet the BWM Convention's D1 or D2 standards during port State control, either through "clear grounds" identified in port State control, or through indicative analysis or full scale/indicative sampling, the ship may be required to stop the discharge of Ballast Water in a port. If this is the case then the ship would have to fix the problem before continuing to discharge ballast water. Additionally, Port State authorities should avoid undue delays to ships when taking any samples. Actions taken towards ships violating the BWM Convention should be in the form of penalties and sanctions which must be backed up by national law and should be proportional to the level of violation.

21. Non-compliance situations (Violations) can be divided into two types:

1. Non compliance resulting in potential risks which could be:
    - a situation outside the control of the ship, for example where severe weather conditions have prevented a ship from managing its ballast water as required by the Port State, or
    - deliberate non-compliance with the Port State's BWM requirements.

2. Non-compliance NOT resulting in potential risks such as:
    - Incomplete record keeping by a ship with a strong record of compliance.

22. Each situation of non-compliance should be treated on its merits with all factors being taken into account before any enforcement action is taken. Penalties and sanctions could be applied with different levels ranging from none in cases of situations outside the control of the ship, to very high in cases of deliberate non compliance such as deliberate discharge of untreated / un-exchanged ballast water with full knowledge of the Port state BWM requirements.

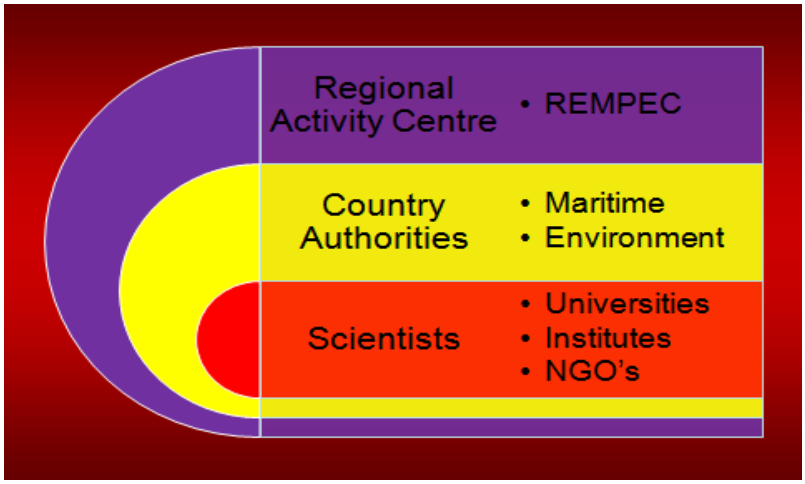
23. It is recommended that the penalties and sanctions regime set up for the BWM Convention is aligned with any existing penalties and sanctions applied to shipping for other MARPOL related violations.

Annex 4

Web-based Mediterranean information exchange system

INFORMATION EXCHANGE SYSTEM

An appropriate mechanism for exchanging information is a web based system that covers all kind of information which will be collected by the contribution of Contracting Parties to the Barcelona Convention (hereafter referred as the "Parties"). The data input to the system will be elaborated by three streams:

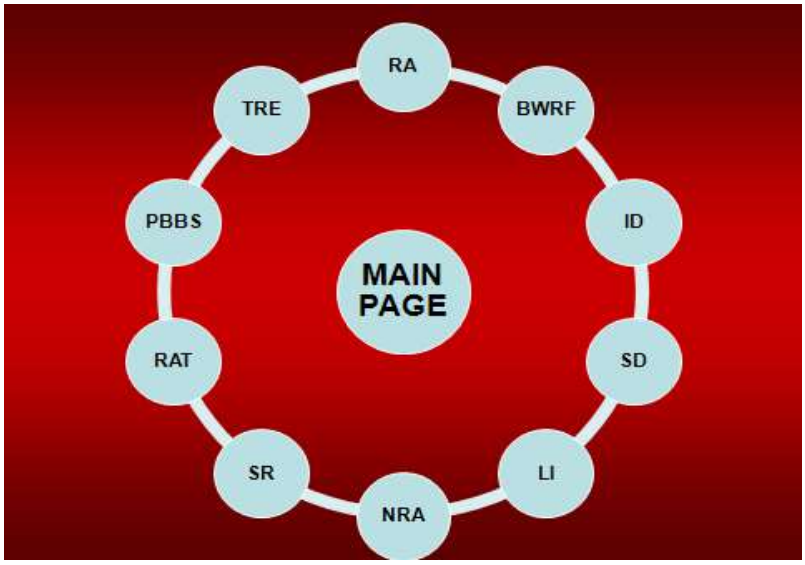


The scientific institutes of the Parties will produce relevant information. This information will be coordinated and evaluated by the governmental authorities of the Parties. The Regional Activity Centre is a gatherer body which also makes a gap analysis and makes coordination in order to produce incomplete information.

SYSTEM ARCHITECTURE

The system will be used via internet. Each Party could enter the system by using one username and password.

It will contain a home page from which one can access to the information module pages. Ten information modules were defined.



These ten modules are as follows:

1. Risk assessment
    a. Risk assessment of Ports of the Contracting Parties to the Barcelona Convention
    b. Risk assessment methodologies, guidelines
    c. Results of risk assessment studies done by other countries from other Regions and Regional or intergovernmental Regional Organizations
    d. Target invasive alien species
2. Ballast Water Reporting Form
    a. Ballast water reporting form system
    b. Statistical results of ballast water discharges
3. Invasive alien species Database
    a. Searching by name and habitat
4. Scientists database
5. Legal Instruments
    a. Ballast Water Management Convention
    b. Guidelines
    c. National legal instruments
6. National Competent Authorities
    a. Globallast Partnership Focal Points
    b. Maritime Authorities
    c. Scientific Institutes
7. Ship routes
8. Raising awareness tools
9. Port biological baseline surveys
    a. Port biological baseline survey guideline
    b. PBBS Workshop presentations
    c. PBBS Studies
10. Treatment
    a. Treatment system inventory
    b. IMO approval procedure
    c. Systems approved by the Contracting Parties to the Barcelona Convention

HOME PAGE WHERE THE LINKS OF THE GENERAL INFORMATION MODULES ARE LOCATED

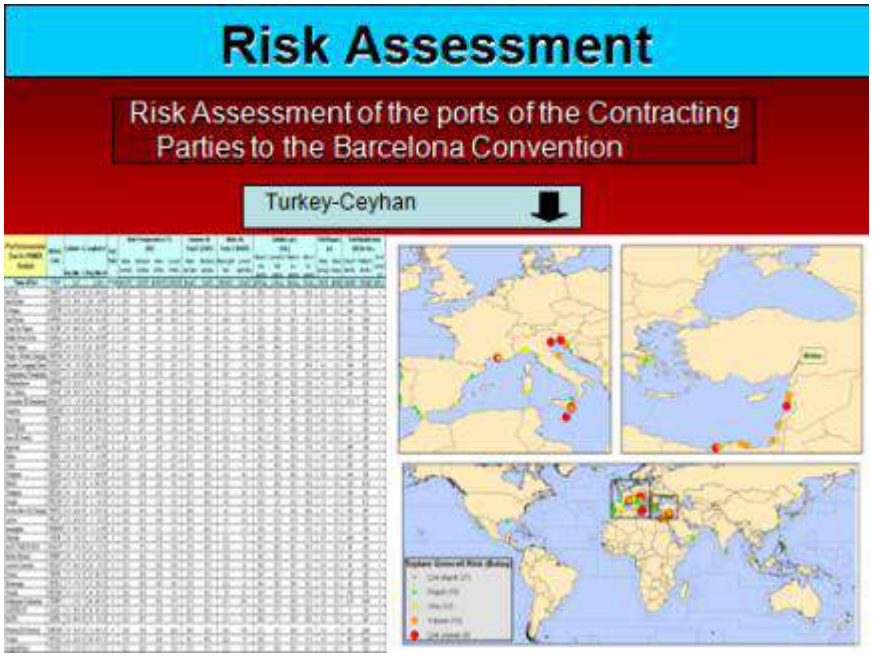
This page provides icons in order to reach the information modules. The GISIS system of the IMO was designated as an example for this system. One can reach each module by clicking on the relative icon. Moreover, some announcements and news about the activities on ballast water management could be placed on the centre of the page.

Module 1- RISK ASSESSMENT

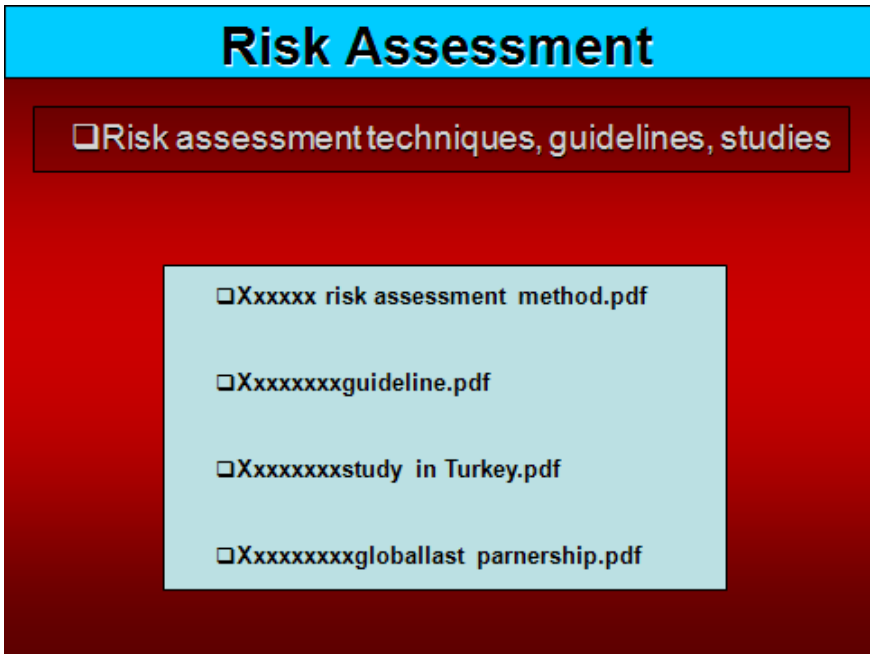
The Mediterranean region needs a detailed ballast water risk assessment study in order to develop the ballast water management system. Also, all the scientific works, studies and guide documents should be collected together in order to assist the relevant national competent authorities. The data are collected under three titles:

Risk Assessment Study in the Ports of the Contracting Parties to the Barcelona Convention:

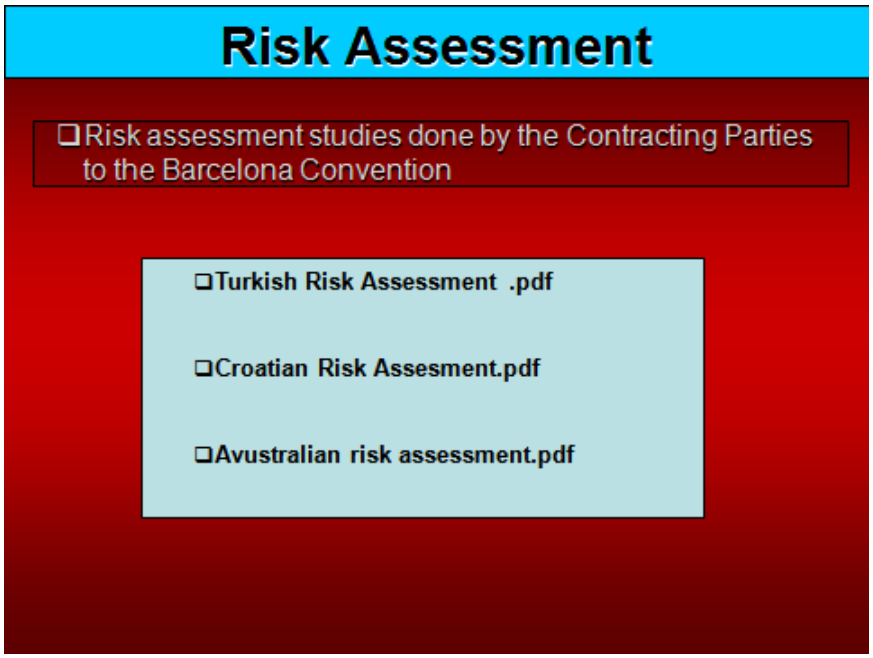
"Risk assessment Study of the Ports of the Contracting Parties to the Barcelona Convention" includes a database for the risk assessment results. The ports can be chosen with the action bar. After choosing the port the hereunder results will be showing.



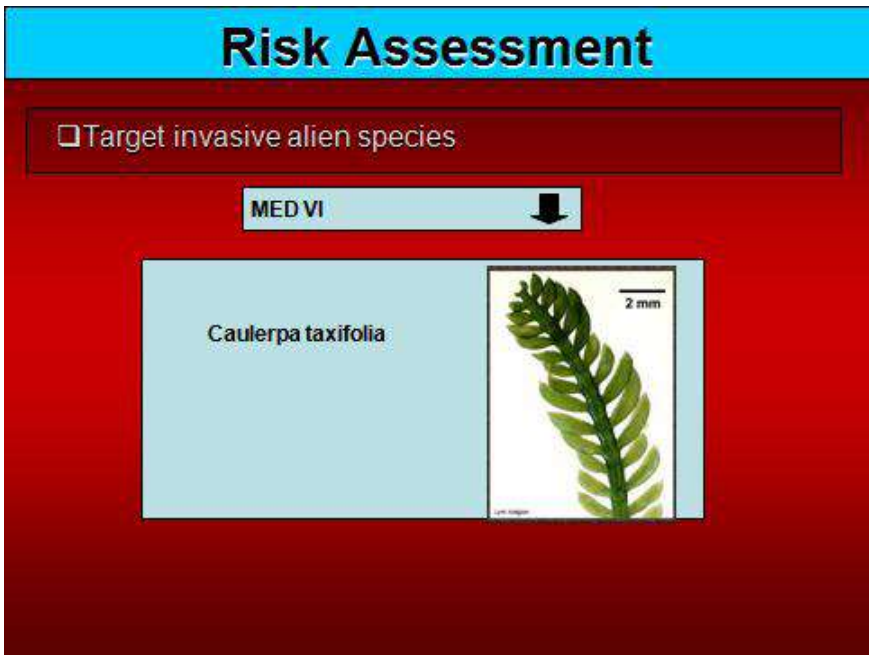
Risk Assessment methodologies, guidelines:
Under this title, relevant information documents, guidelines and workshop presentations can be found in pdf format.



The results of risk assessment studies done by countries from other Regions and Regional or intergovernmental Regional Organizations:
Also, the risk assessment studies done by countries from other Regions and Regional or intergovernmental Regional Organizations could be found in a different page.



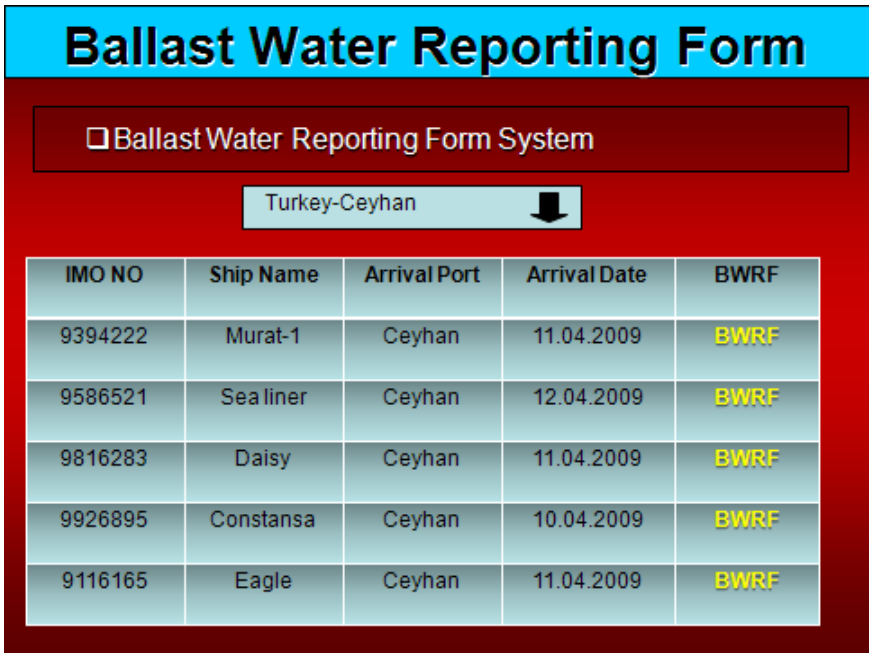
The target invasive alien species can be found with respect to the biological region.



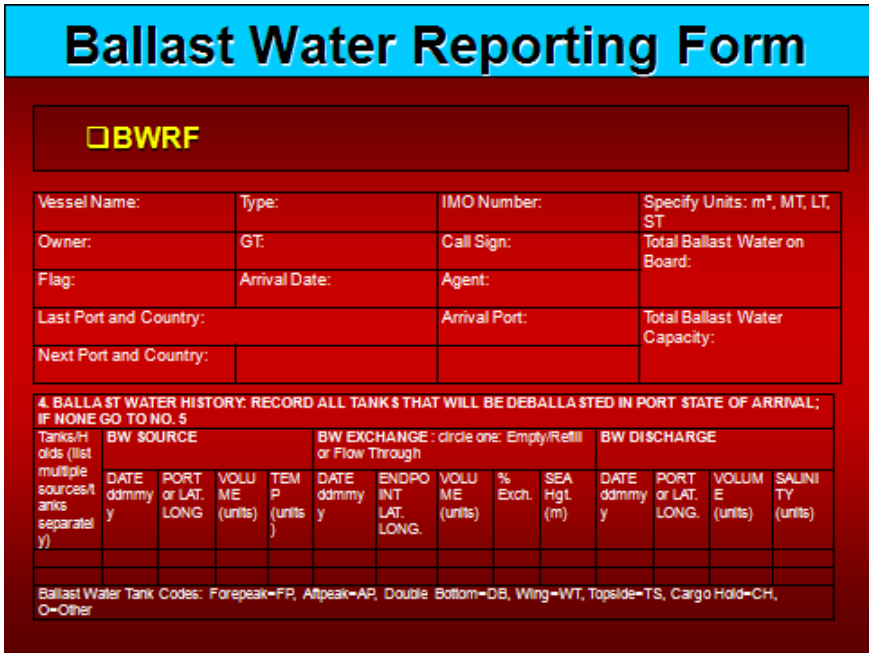
Module 2- BALLAST WATER REPORTING FORM

One of the most important inputs into the ballast water management system is the information which could be obtained from the ballast reporting forms. The origin and volume of ballast water discharged to the Ports of Parties can be easily provided from the reporting forms. The data provided from the forms is a very important input for ballast water risk assessment studies. A web based system should be designed in order to collect the ballast water reporting forms. The ships or the agents of the ships or the harbour masters of the ports of Parties could record the data to the system.

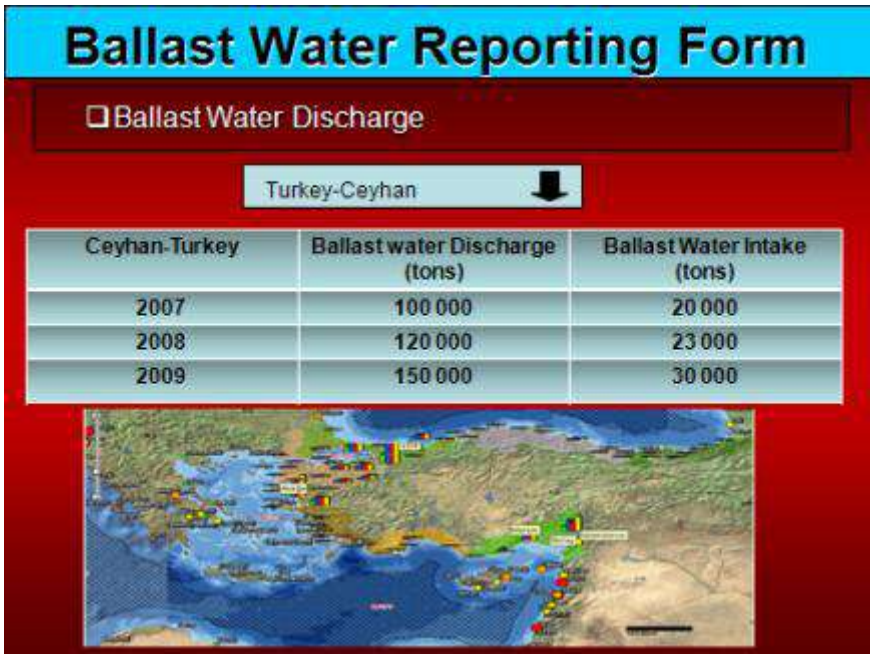
Ballast Water Reporting Form System
The ballast water reporting forms can be reached with the action bar by choosing the ports.



After choosing the port from the action bar, all the ships calling that port will be shown. It can be reached to the original ballast water reporting form by clicking the yellow BWRF icon. Entries related to flag on BWRF shall use only official names of States as recognized by the United Nations chosen only from action bars. The user chooses the arrival and departure port only from action bars. Parties will confirm the names of their ports.

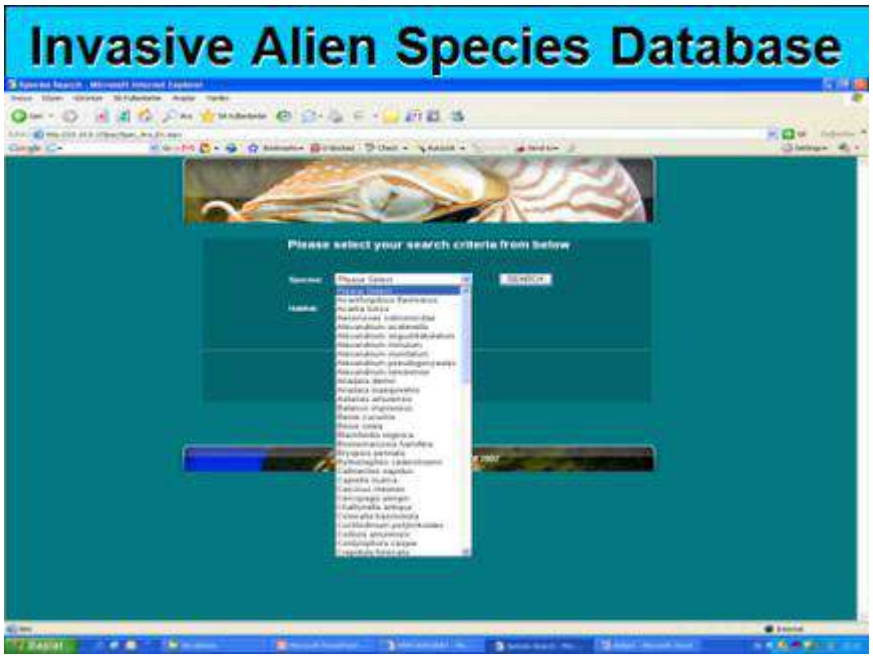


The Statistical Results for Ballast Water Discharges
There is an instrument which can collect the data from online BWRF's and draw graphics with respect to the ports chosen from the action bar.

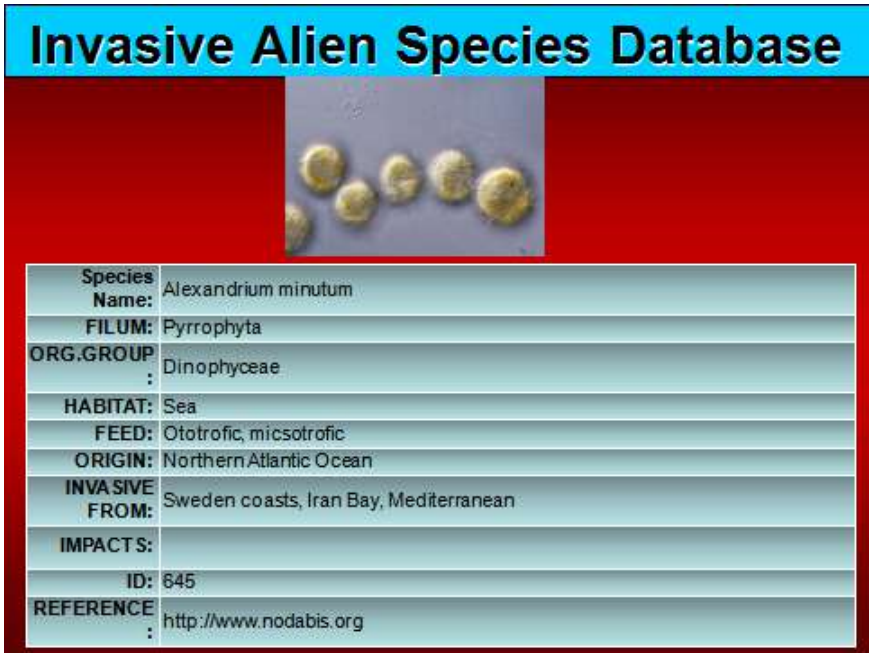


Module 3- INVASIVE ALIEN SPECIES DATABASE

This module consists of a data base of the invasive alien species spread globally. It contains every kind of information about the invasive alien species.

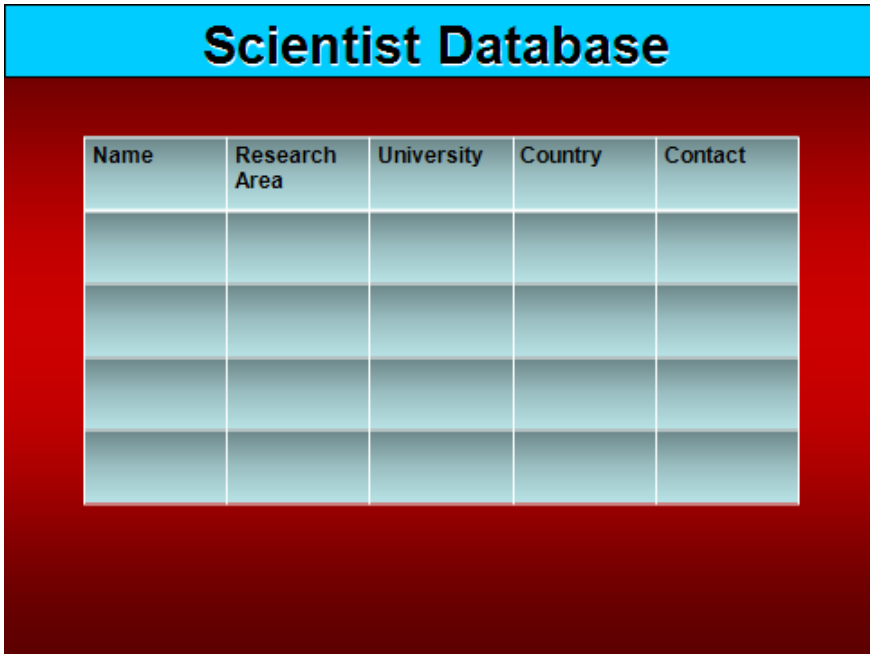


Again an action bar is used to choose the species from name. It will also have a searching device from habitat. After choosing the species, the page of the species will be opened that contains picture and information about the species.



Module 4- SCIENTISTS DATA BASE

In this module all of the scientists who are working on invasive alien species are going to be put in together. Parties are only allowed to include details of scientists/universities resident/situated in their territory.



Module 5- LEGAL INSTRUMENTS

All the IMO publications and the national legal instruments of the Parties will be located here in pdf format.

Module 6- NATIONAL COMPETENT AUTHORITIES

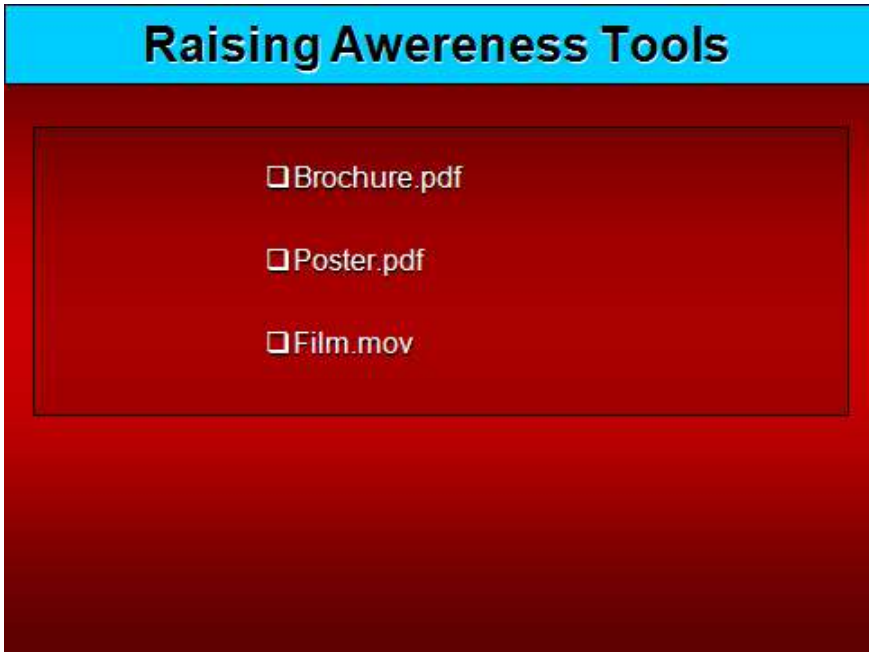
In this module all the contact details of the national authorities of the Parties will be collected.

Module 7- SHIP ROUTES

An analysis instrument will be produced in order to determine the exchange limitations of the routes. The user only chooses the arrival and departure port from action bars. Parties will confirm the names of their ports. The instrument calculates the estimated arrival time and the possibility of the exchange.

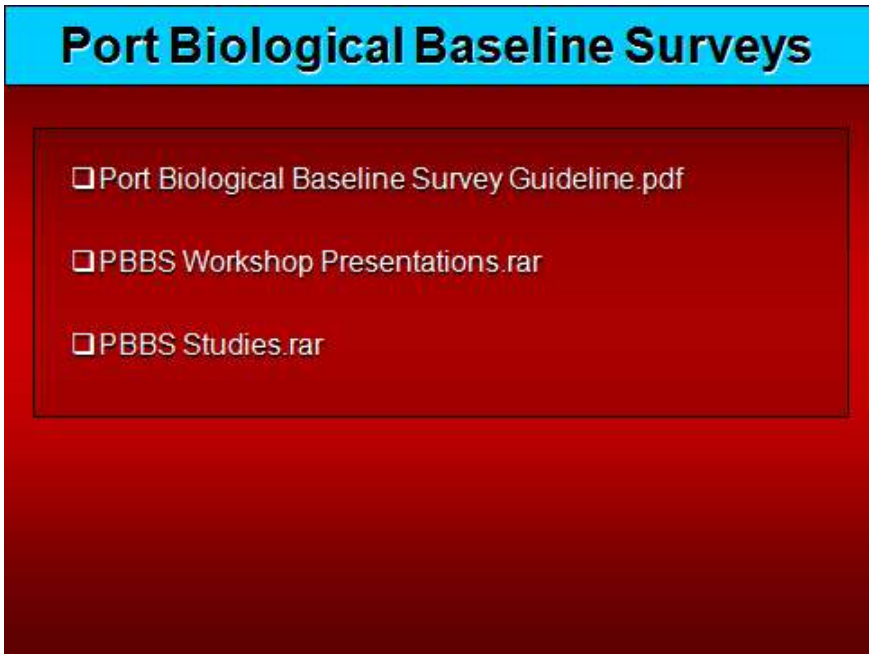
Module 8- RAISING AWARENESS TOOLS

All the media instruments produced by the Parties could be placed on this module.



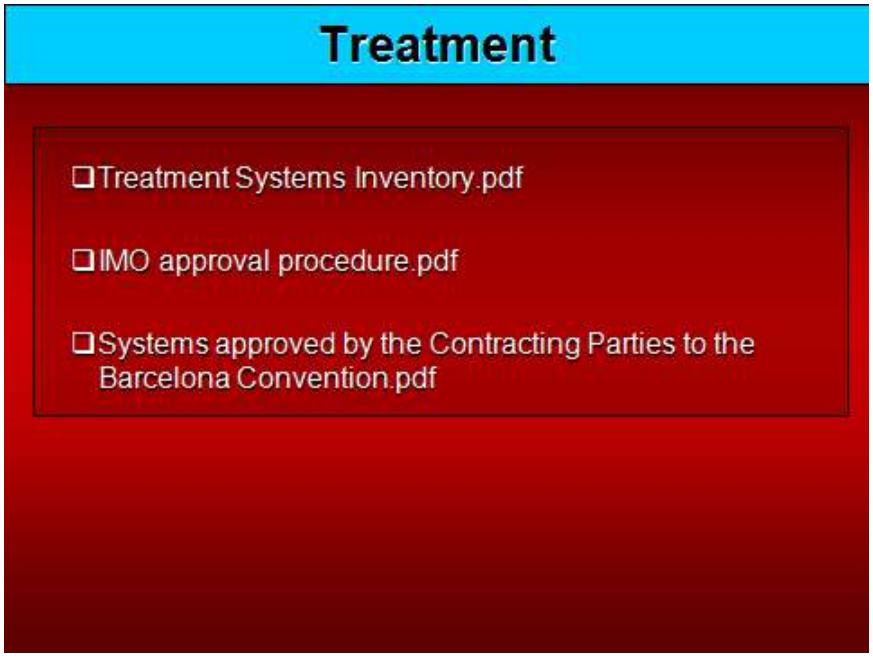
Module 9- PORT BIOLOGICAL BASELINE SURVEYS

In this module, all the documents concerning the port baseline surveys of Parties could be collected.



Module 10- TREATMENT

In this module all the documents concerning the ballast water treatment activities could be collected.



ANNEX II

"GENERAL GUIDANCE ON THE VOLUNTARY INTERIM APPLICATION

OF THE D1 BALLAST WATER EXCHANGE STANDARD BY VESSELS OPERATING BETWEEN

THE MEDITERRANEAN SEA AND THE NORTH-EAST ATLANTIC AND/OR THE BALTIC SEA"

"General Guidance on the Voluntary Interim Application of the D1 Ballast Water Exchange Standard by vessels operating between the Mediterranean Sea and the North-East Atlantic and/or the Baltic Sea"

1. In anticipation of the coming into force of the International Maritime Organization's International Convention for the Control and Management of Ships' Ballast Water and Sediments (the BWM Convention), vessels operating between the marine areas as defined further in point 3, would be expected to apply on a voluntary basis, as from [XXXXXXXX], the following guidelines to reduce the risk of non-indigenous species invasion through ballast water. The guidelines are addressed to the vessels covered by Article 3 of the BWM, taking into account the exceptions in Regulation A-3 of that Convention. This Guidance does not replace the requirements of the BWM Convention, but provide the part of interim Ballast Water Regional Management Strategies for the Baltic Sea, the Mediterranean Sea and the North-East Atlantic being developed under Article 13 (3) of the BWM Convention by the contracting parties to either the OSPAR Convention, the Helsinki Convention or the Barcelona Convention*. This Guidance will no longer apply when a ship is in a position to apply the D-2 Standard of this Convention, or the Ballast Water Management Convention comes into force and a ship has to apply the D-2 Standard.

2. If the safety of the vessel is in any way jeopardised by a ballast water exchange, it should not take place. Additionally these guidelines do not apply to the uptake or discharge of ballast water and sediments for ensuring the safety of the vessel in emergency situations or saving life at sea in the waters of the Mediterranean Sea, the Baltic Sea and the North East Atlantic.

3. Definitions:

   - **North-East Atlantic**:
     - those parts of the Atlantic and Arctic Oceans and their dependent seas which lie north of 36° north latitude and between 42° west longitude and 51° east longitude (but excluding the Baltic Sea and the Belts lying to the south and east of lines drawn from Hasenore Head to Gniben Point, from Korshage to Spodsbjerg and from Gilbjerg Head to Kullen, and the Mediterranean Sea and its dependent seas as far as the point of intersection of the parallel of 36° north latitude and the meridian of 5° 36' west longitude);
     - that part of the Atlantic Ocean north of 59° north latitude and between 44° west longitude and 42° west longitude.
   - **The Baltic Sea**:
     - the Baltic Sea and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57 44.43'N; and,
   - **The Mediterranean Sea**:
     - the maritime waters of the Mediterranean Sea proper, including its gulfs and seas, bounded to the west by the meridian passing through Cape Spartel lighthouse, at the entrance of the Straits of Gibraltar, and to the east by the southern limits of the Straits of the Dardanelles between the Mehmetcik and Kumkale lighthouses.

4. Each vessel operating in these waters should:

    - have a Ballast Water Management Plan which complies with the Guidelines for ballast water management and development of ballast water management plans (G4) (IMO resolution MEPC.127(53)); and,
    - record all ballast water operations in a ballast water record book.

5. Vessels leaving the Mediterranean Sea and proceeding to destinations in the North-East Atlantic or the Baltic Sea should exchange all their ballast tanks to the standards set out by the D-1 Standard of the Ballast Water Management Convention, at least 200 nautical miles from the nearest land in water at least 200 metres deep, as soon as they enter the North-East Atlantic. It should be noted that the best place to do this is in waters that meet these criteria to the west of Portugal, Spain and France, as most of the waters of the English Channel and its approaches, the North Sea and the Baltic Sea are less than 200m deep. A map identifying these areas can be found in Figure 1[1].

6. Vessels entering the Mediterranean Sea from the North-East Atlantic or the Baltic Sea and proceeding to destinations in the Mediterranean Sea, the Black Sea or elsewhere should exchange all their ballast tanks to the standards set out by the D-1 Standard of the Ballast Water Management Convention, at least 200 nautical miles from the nearest land in water at least 200 metres deep, before they leave the North-East Atlantic. A map identifying these areas can be found in Figure 1.

7. If, for operational reasons, exchange is not possible at least 200 nautical miles from the nearest land in water at least 200 metres depth, then such exchange should be undertaken as far from the nearest land as possible outside the Mediterranean Sea, and in all cases in waters at least 50 nautical miles from the nearest land in waters of at least 200 metres depth. It should be noted that nowhere in the Baltic Sea fulfils these criteria (Figure 2).

8. The release of sediments during the cleaning of ballast tanks should not take place within the Baltic Sea, or within 200 nautical miles of the coastline of the North-East Atlantic, or within the Mediterranean Sea.

* Albania, Algeria, Belgium, Bosnia and Herzegovina, Croatia, Denmark, Egypt, Estonia, The European Union, Finland, France, Germany, Iceland, Ireland, Israel, Latvia, Lebanon, Libyan Arab Jamahiriya, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Morocco, The Netherlands, Norway, Poland, Portugal, The Russian Federation, Serbia, Slovenia, Spain, Sweden, Switzerland, Syria, Tunisia, Turkey, and the United Kingdom of Great Britain and Northern Ireland.

[1] For vessels leaving the Mediterranean or the North East Atlantic proceeding to destinations near Tarrifa Cape a different regime for ballast water exchange could be considered.

Figure 1: Map of North West Europe showing the 200 nautical miles and 50 nautical miles contours and the 200m depth contour.

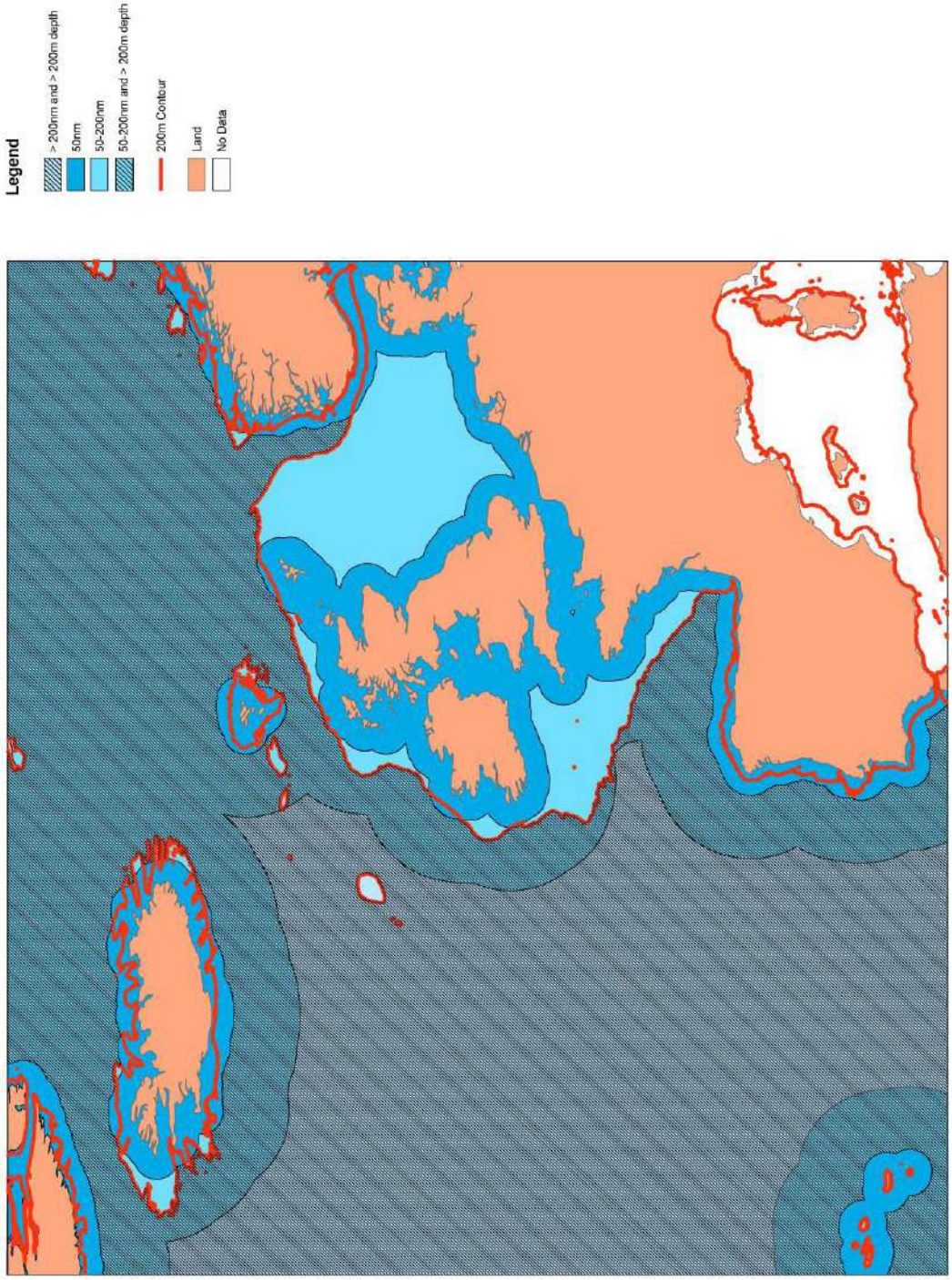


Figure 2: Map of the Baltic Sea showing areas of more than 50 nautical miles from the nearest land and areas of 200 meters depth.

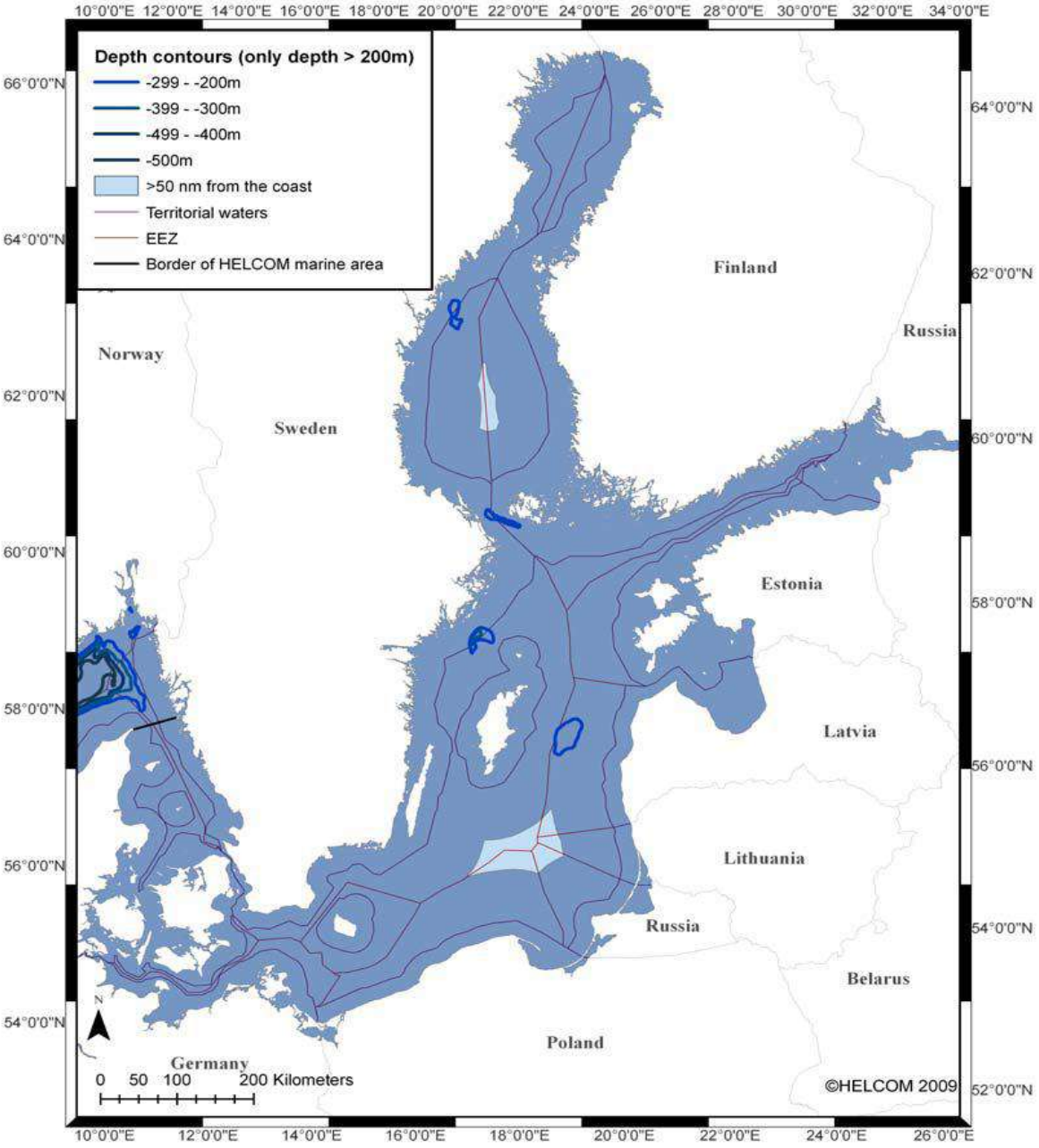


Figure 3: Map showing the areas in the Mediterranean Sea of at least 50 nautical miles from the nearest land in waters of at least 200 meters depth.