



Towards ballast water management in the Black Sea

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**“The Safety of Navigation and Environmental Security in a Transboundary Context in
the Black Sea Basin”**

Odesa, Ukraine, 24-26 June 2008

FACTS



- 1) In the past, the Black Sea ecosystem experienced one of worst cases of negative impact from the ballast mediated invasive species
- 2) Increasing shipping traffic also increase the risk of significant impact from another species
- 3) Due to its special oceanographic conditions, in the Black Sea, measures against to this problem must be at the regional level.
- 4) Yet there is no a regional strategy.
- 5) There has been some important activities to deal with the ballast waters in the region, both at the regional and national levels
- 6) Some important concrete actions should be undertaken ASAP.
- 7) What is next?

Fact 1) In the past, the Black Sea ecosystem experienced one of worst cases of negative impact from the ballast mediated invasive species



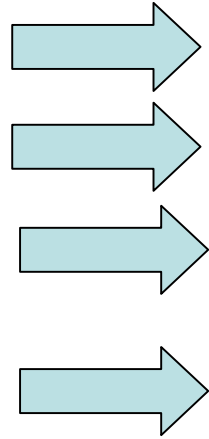
Alien jellyfish (*Mnemiopsis leidyi*) in the Black Sea
in the late 1980s



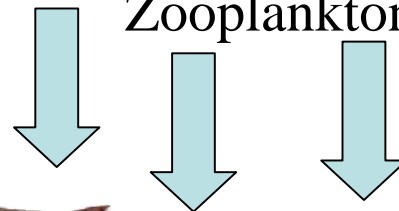
Simplified Black Sea food chain



Phytoplankton



Zooplankton

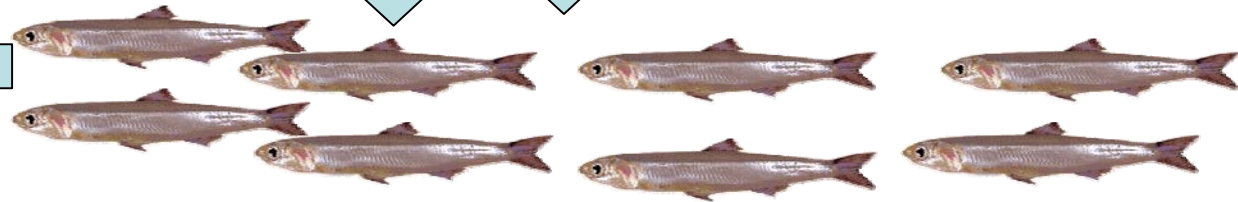
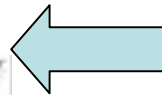


Larger predators

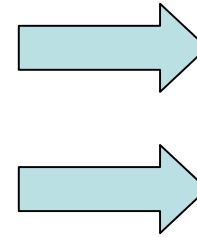
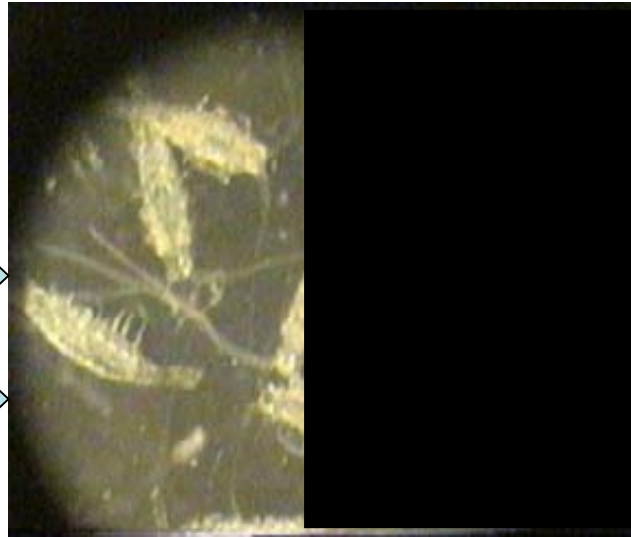
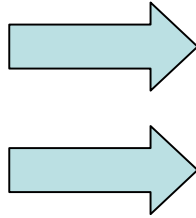


www.acfishing.com/fishid/bonito.html

Larva and adults of small pelagics



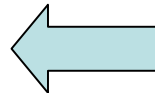
Additional competitor in the food chain...



Phytoplankton

Zooplankton

[*M. leidyi* could feed on all sizes of zooplankton and particularly on smaller zooplankton (Anninsky et al. 1998)]



Larva and adults of small pelagics

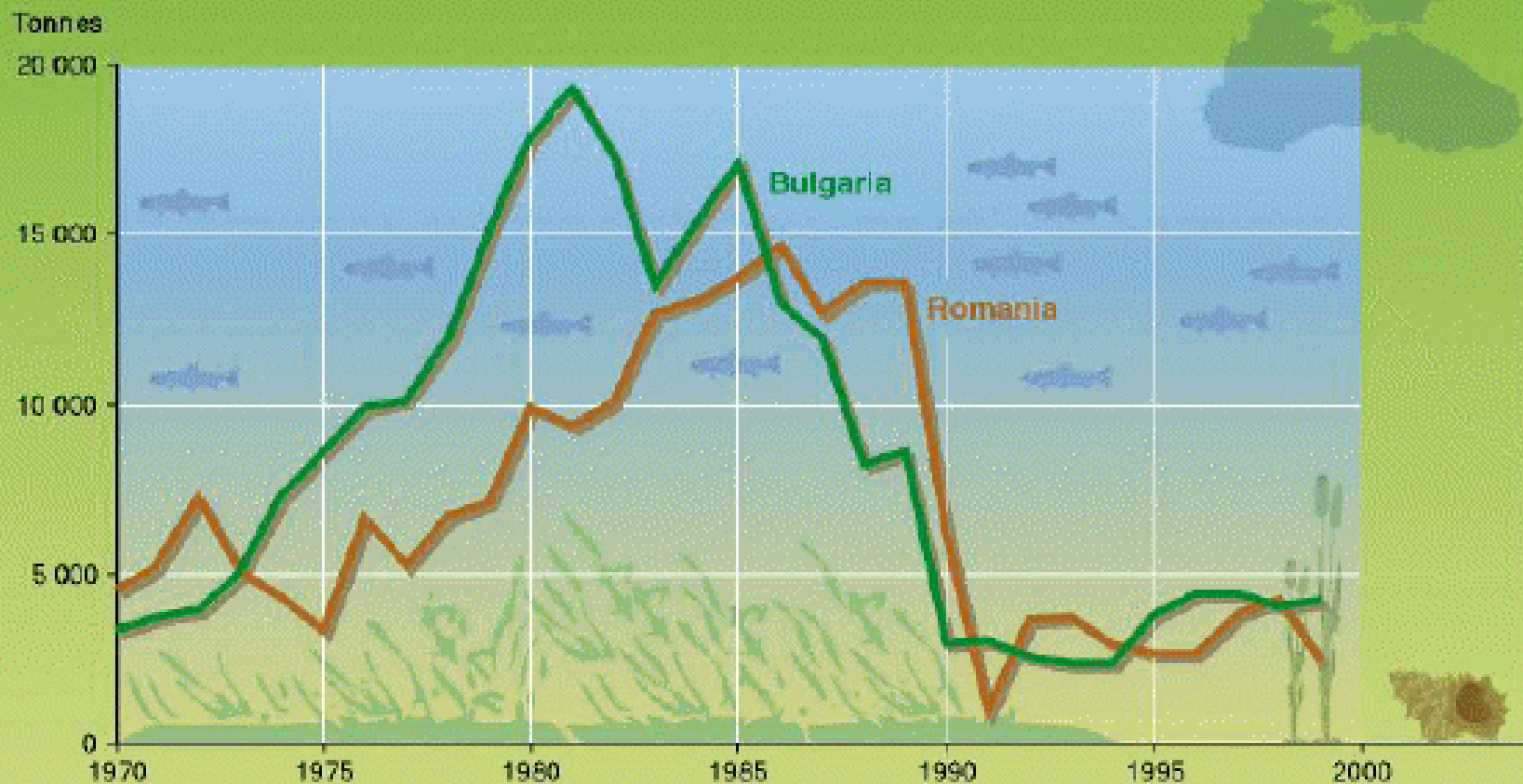
Larger predators

Sharp decrease for all countries in the similar period!



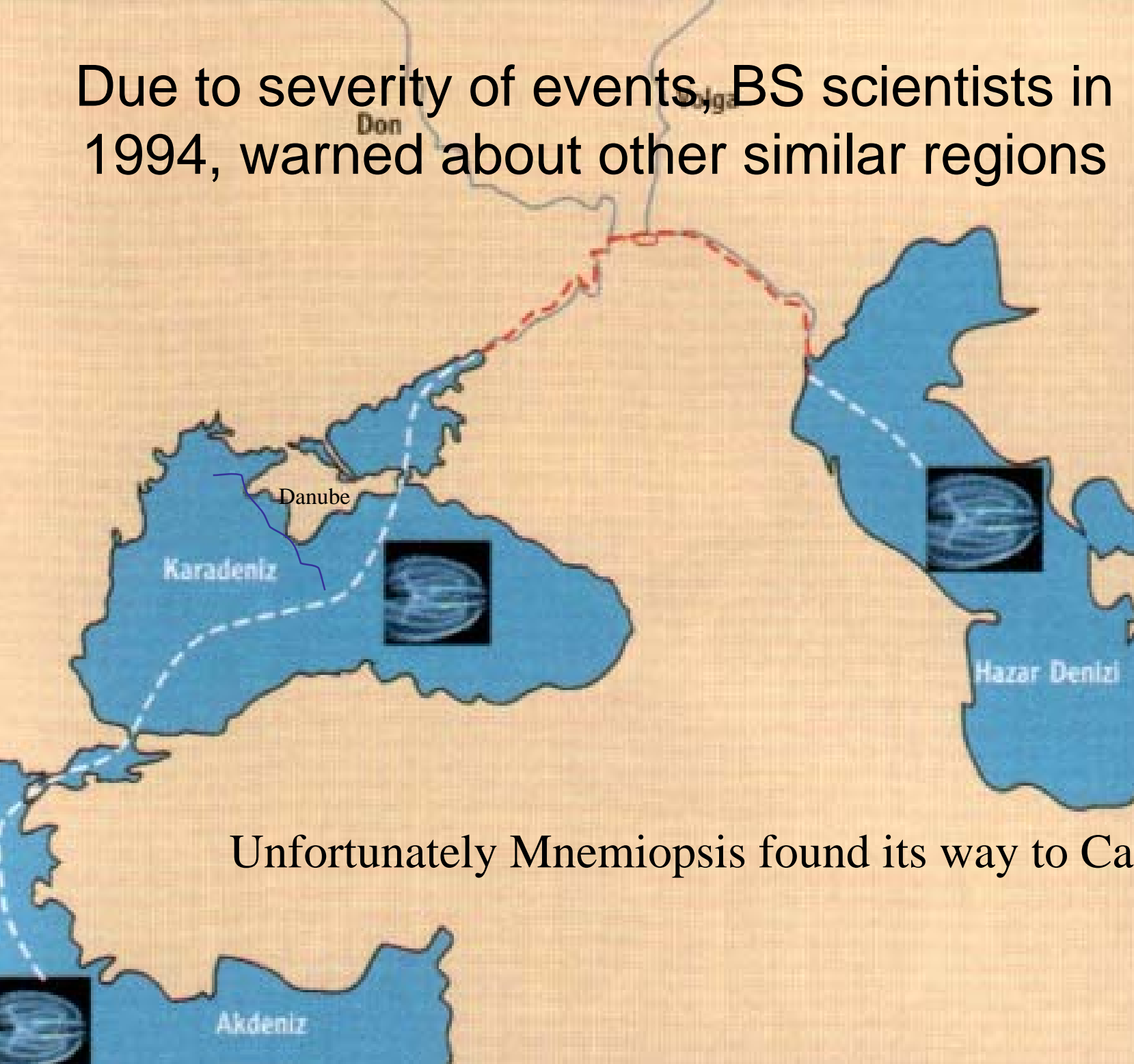
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Catch fish for selected countries over the last 30 years



Source: Food and Agriculture Organization (FAO)

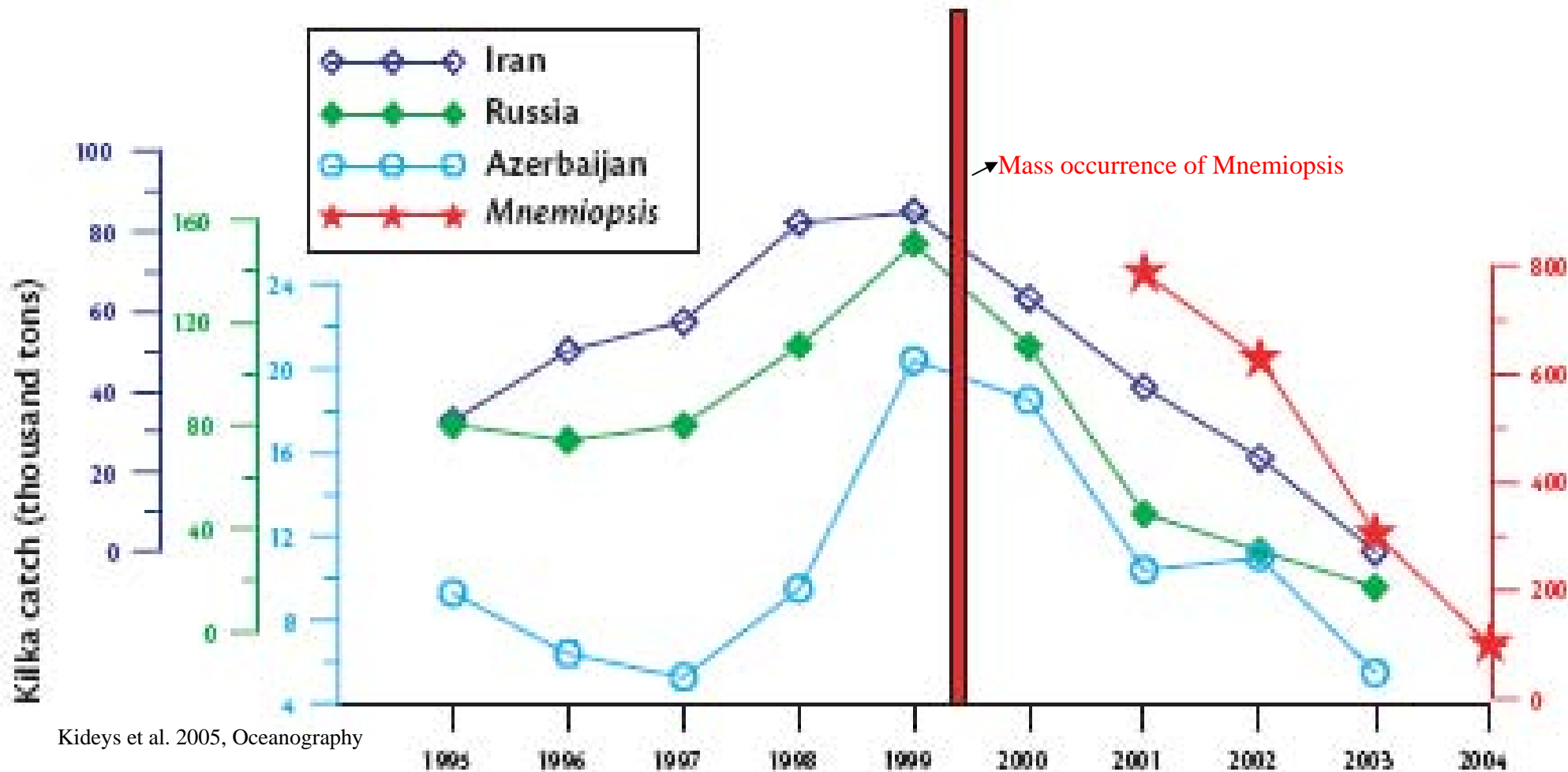
Due to severity of events, BS scientists in 1994, warned about other similar regions



Unfortunately Mnemiopsis found its way to Caspian in 1997.



Sharp decrease in kilka fishery



Kideys et al. 2005, Oceanography

Again hundreds million USD loss...

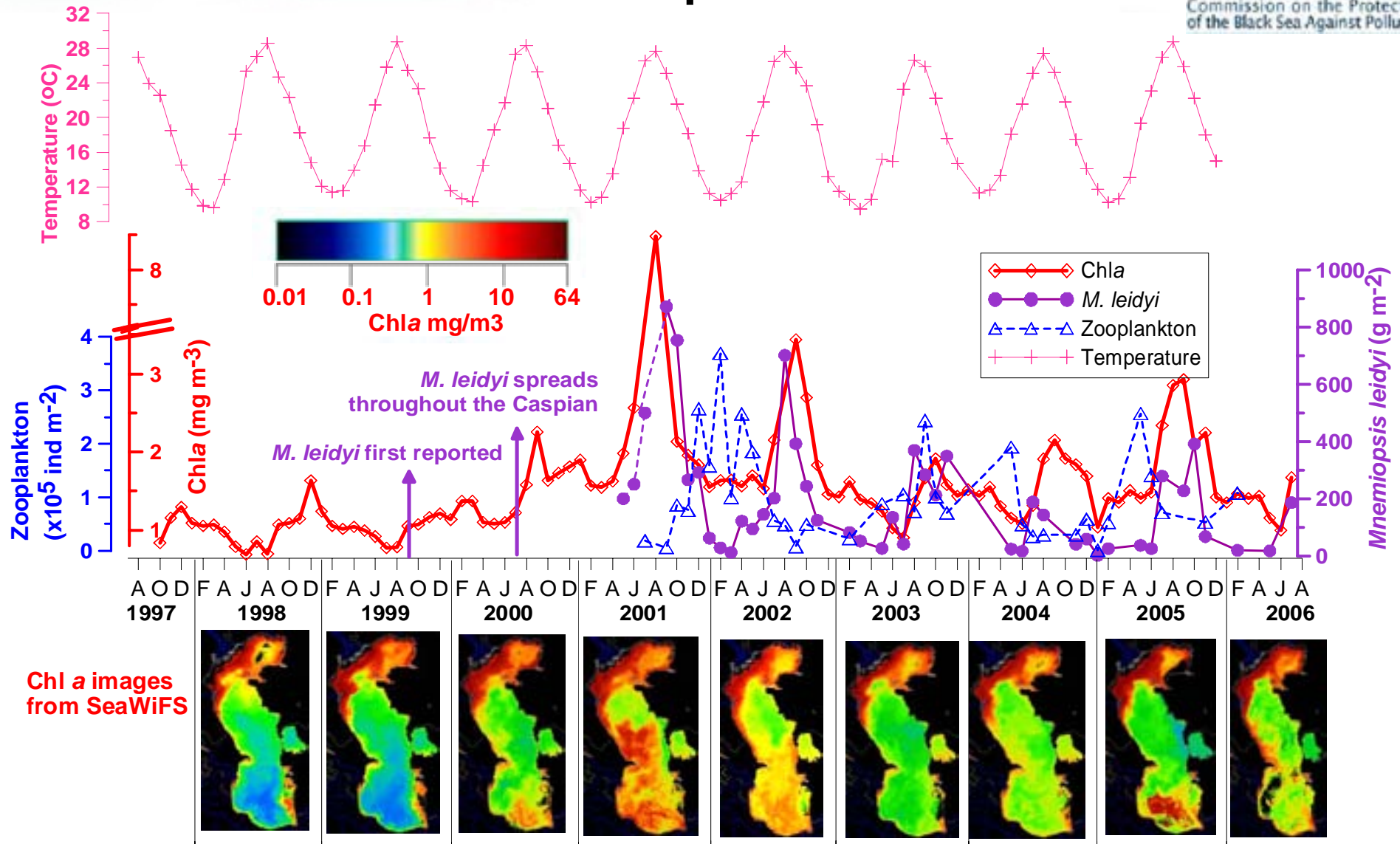
Mass seal mortalities!..

- As reported by the media, the mass deaths of Caspian seals (*Phoca caspica*) occurred in the northern Caspian Sea during the spring of 2000. .. There is strong evidence that the epizootic disease observed in seals during the spring of 2000 was caused by undernourishment
- Significantly decreased pregnancy and fat content in population...

(Davis et al. 2003, Caspian Report)



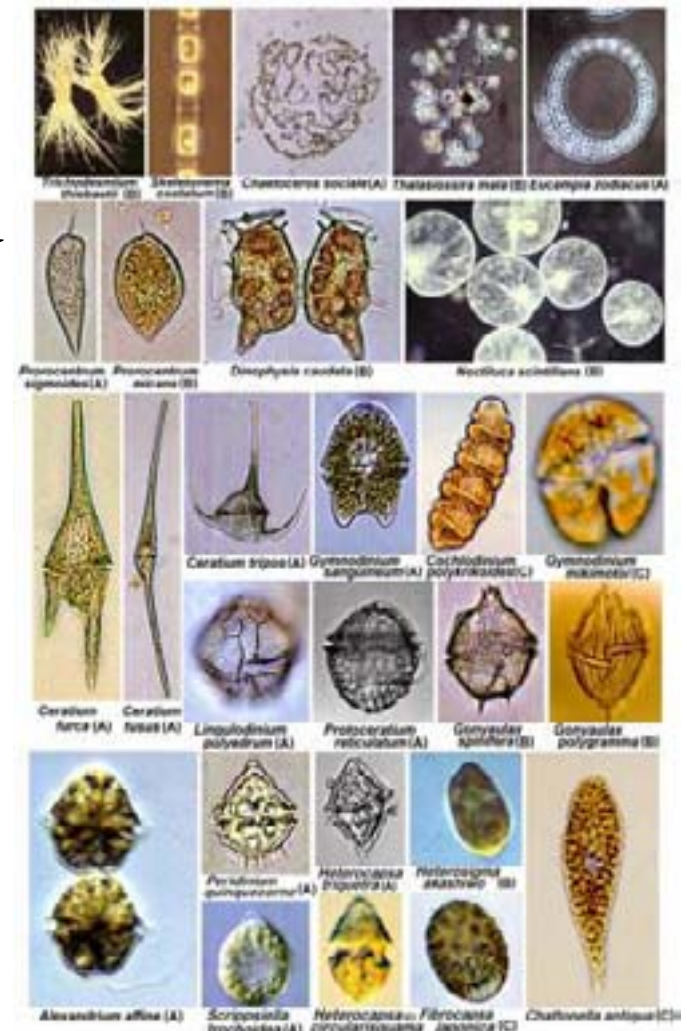
Unprecedented chl levels in the Caspian



Ballast Waters in the Black Sea:



49 new species-invaders were reported during the last years, and most probably they are much more).





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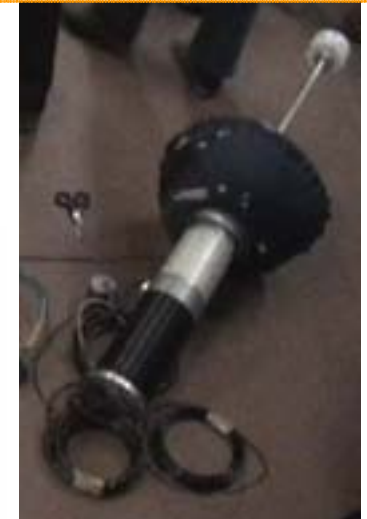
- **Fact 2)** Increasing shipping traffic also increase the risk of significant impact from another species

Fact 3) Due to its special oceanographic conditions, in the Black Sea, measures against to this problem must be at the regional level.

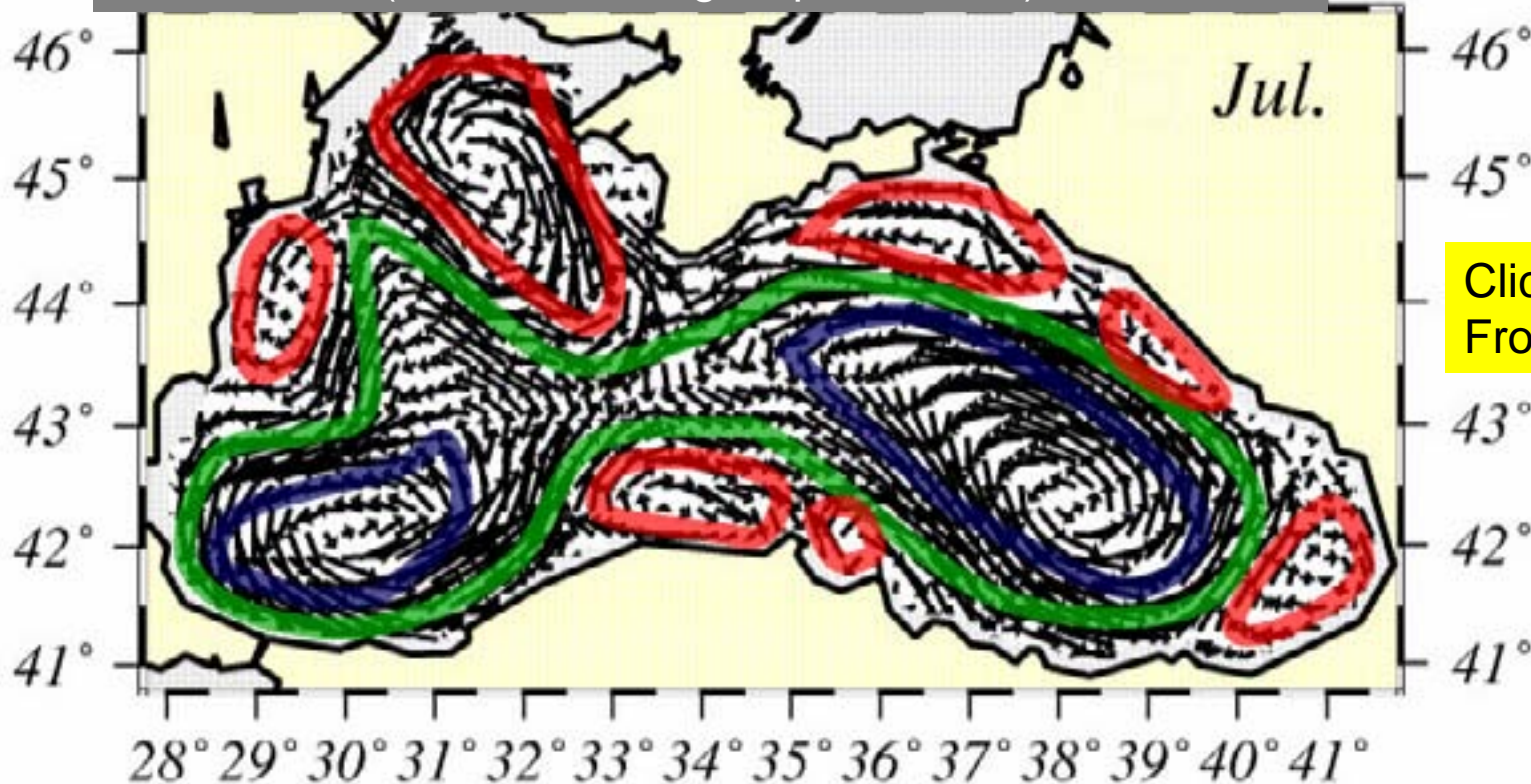
- As the major environmental problems in the Black Sea are transboundary



Drifter from Prof A. Zatsepin



Currents of the Black Sea
(from Prof T. Oguz; pers.comm)



Click here to start movie
From Prof A. Zatsepin

4) Yet there is no a regional strategy.



National measures

- **Bulgaria:** There is no monitoring except for check where the exchange of ballast water takes place. **Deballasting areas and depth are not identified.**
- **Georgia:** Regulations concern the control of the quality of ballast waters.
- **Romania:** No regulations on ballast exist. The present monitoring of alien species is a random check, performed only under a research thematic of the NIMRD-Constanta.
- **Russia:** Novorossiysk port reported on ballast waters only for ships entering the port.
- **Turkey:** Significant work has been undertaken for ballast water management but no strategy
- **Ukraine:** no management system in place.

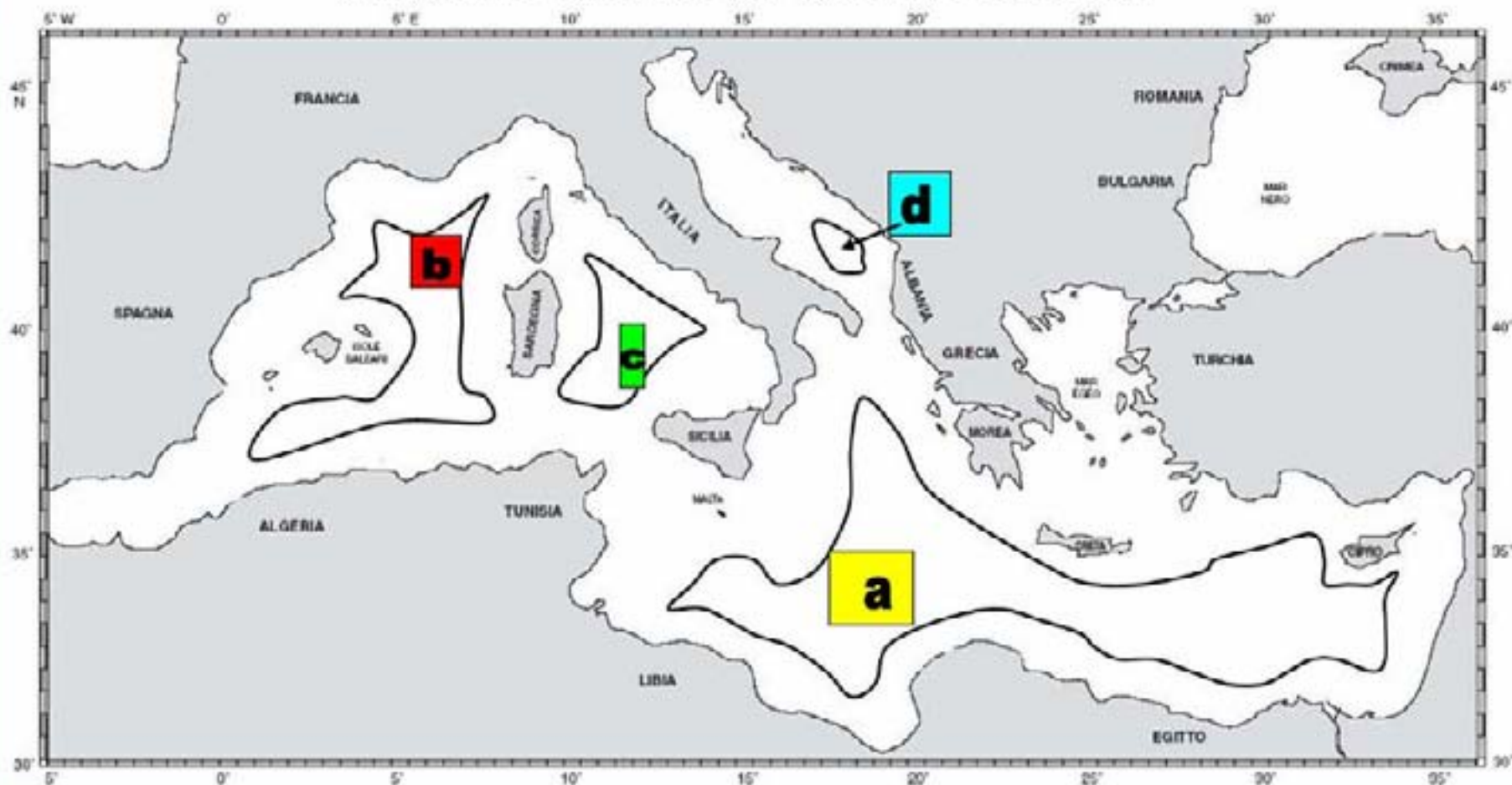
Need for a regional approach



- On its closing address at the 1st Black SeaS Conference on Ballast Water Management (October, 2001, Odessa, Ukraine) Mr. William O'Nei, Secretary-General, IMO, stated:
- '...The avoidance of unilateral action by individual states is critical to the success of any activity regarding the management and control of ballast waters. ...'

Only four areas in Mediterranean Sea meet the requirements set in regulation B-4.1.2

200Nm+200m or 50NM+200m



Source: Presentation by Nenad Mikulic, Ministry of Environment, Croatia

50nm+200m in the Black Sea



Protection
Pollution

- 5) There has been some important activities to deal with the ballast waters in the region, both at the regional and national levels



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Regional Cooperation and Replication

Mr Roman Bashtanny, former Country Focal Point Assistant,
Odessa GloBallast Demonstration Site

**The 1st Black Sea Conference
on Ballast Water Control and
Management was held in
Odessa on 10-12 October
2001**

**Representatives of Black Sea
maritime administrations,
regional ecological and
shipping organizations
participated**

**IMO Secretary General Mr. W.
O'Neil opened the
Conference and finalised its
conclusions**



Ukraine / Black Sea results 2001-2004

Mr Roman Bashtanny, former Country Focal Point Assistant,
Odessa GloBallast Demonstration Site



- **Regional Action Plan adopted on two conferences**
- **Awareness rising in the Black Sea countries**
- **Biological survey methodology spread in Turkey and Georgia**

Happy to hear that BWM Convention is on the agenda of National Parliament for ratification in 2008 in Ukraine

A satellite map of the Black Sea region, showing the sea and surrounding landmasses. A large blue semi-transparent rectangle is overlaid on the map, containing white text. The text lists the principal actions of the Black Sea Regional Action Plan. The map shows the Black Sea, with labels for Ukraine, Moldova, Romania, Bulgaria, Georgia, and Russia. The Mediterranean Sea is also labeled at the bottom left. Red dots are marked along the coastlines of the Black Sea.

Black Sea Regional Action Plan – Principal Actions

- Public Awareness
- Information Clearinghouse
- Regional Risk Assessment
- Monitoring and R&D
- Unification and introduction of rules and regulations: Establishment of a regional working/ correspondence group

Black Sea Regional Action Plan – Principal Actions

- Regional and national training
- Develop National Action Plans
- Establishing a Regional Task Force to implement the RAP
- Use relevant mechanisms of International and Regional Organizations (IMO, BSC etc) to address the BW issue

Some Points for Consideration during 16th ESAS Group Meeting (Oct 2007)

- How can BSC support addressing the issue?
- Can there be a regional mechanism / framework to sustain the actions/cooperation/discussions?
- Status of including BW issues within the revised BS SAP?
- What are the high priority needs? Training, information collection on BW discharges, Risk Assessment, Roadmap Development to move towards Convention Ratification?

SAP2008



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EcoQO-2c: Reduce and manage human-mediated species introductions¶

¶

Management Targets	Anticipated outputs	Time required¶ to implement	Legal, institutional or policy reforms required	Indicators of success	Relative priority: high, medium, or low	Uncertainties
Management, Policy and Legislation						
(27): Assess BS preparedness to implement and ratify the BWM Convention	Overview of BS states' national legislation relevant to ballast water management	1-2 years	Yes	Level of compliance with the provisions of the BWM Convention	High	Low enforcement of existing national legislations on introduction of new exotic species
(28): Harmonise ballast water procedures using IMO guidelines	Agreed areas of exchange and amount of exchanged waters, agreed controls of ballast waters in ports¶ ¶ Enhanced control of transfer of alien species	1-3 years	Yes	Harmonised national legislations on ballast water exchanging controls	High	
(29): Elaborate road map for harmonised implementation and ratification of the BWM Convention in the BS region	Road map to Reduce risk of alien species invasion	1-7 years	National plans for BWM management	Road map produced and acted upon	High	Political acceptance

BALLAST WATER MANAGEMENT IN PROGRESS IN TURKEY

*16-th Meeting of the Advisory Group on Environmental Safety Aspects of Shipping
October 18-19, 2007, Istanbul, Turkey*



- UMA has started Ballast Water Project with the support of TUBITAK Marmara Research Center and this project will be finalized at the end of 2008 and the project is focused on following subjects:
 - Inventory proceeding of organism and pathogens that are carrying with ballast water
 - Investigation of related international laws & regulations and related implementations
 - Clarification of activities for national implementations
 - Preparation of national laws and regulations
 - Statement of existing conditions in national level
 - Development of training courses
- At the end of the project period Ballast Water Management System will be developed and necessary measures will be performed for decreasing the risk in Black Sea. (UMA detail)
- Now, although Turkiye has not signed the Ballast Convention, preventive measures for minimizing the effects of ballast water are already in force.

Some More Points for Consideration?

- How to link the BS efforts to the GloBallast Partnership Project?
- Harmonizing BS Strategy with MED, Caspian and HELCOM Strategy?
- How can IMO support?
- Reception Facilities?
- Financing?



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- Thank you for your attention

INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004



Article 4 Each Party shall, with due regard to its particular conditions and capabilities, develop national policies, strategies or programmes for Ballast Water Management in its ports and waters under its jurisdiction that accord with, and promote the attainment of the objectives of this Convention.

» Article 5 Sediment Reception Facilities

» 1 Each Party undertakes to ensure that, in ports and terminals designated by that Party where cleaning or repair of ballast tanks occurs, adequate facilities are provided for the reception of Sediments, taking into account the Guidelines developed by the Organization. Such reception facilities shall operate without causing undue delay to ships and shall provide for the safe disposal of such Sediments that does not impair or damage their environment, human health, property or resources or those of other States.

» Article 6 Scientific and Technical Research and Monitoring

» 1 Parties shall endeavour, individually or jointly, to:

» (a) promote and facilitate scientific and technical research on Ballast Water Management; and

» (b) monitor the effects of Ballast Water Management in waters under their jurisdiction.

- » ANNEX
- » REGULATIONS FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS

SECTION B on MANAGEMENT AND CONTROL REQUIREMENTS FOR SHIPS

Regulation B-4 Ballast Water Exchange

- » 1 A ship conducting Ballast Water exchange to meet the standard in regulation D-1 shall:
 - » .1 whenever possible, conduct such Ballast Water exchange at least 200 nautical miles from the nearest land and in water at least 200 metres in depth, taking into account the Guidelines developed by the Organization;
 - » .2 in cases where the ship is unable to conduct Ballast Water exchange in accordance with paragraph 1.1, such Ballast Water exchange shall be conducted taking into account the Guidelines described in paragraph 1.1 and as far from the nearest land as possible, and in all cases at least 50 nautical miles from the nearest land and in water at least 200 metres in depth.