Technical and administrative support for the joint implementation of the Marine Strategy Framework Directive (MSFD) in Bulgaria and Romania

Under Framework contract for services related to coordination between the different marine regions in implementing the ecosystem approach.



CBE Varna /ICES 16-17 April 2014 Varna







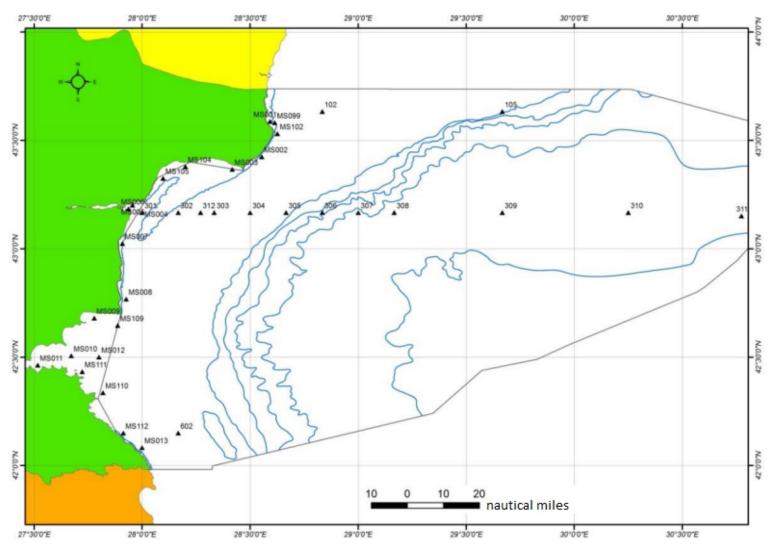
ARCADIS

Imagine the result

PART 1: MONITORING PROGRAMME

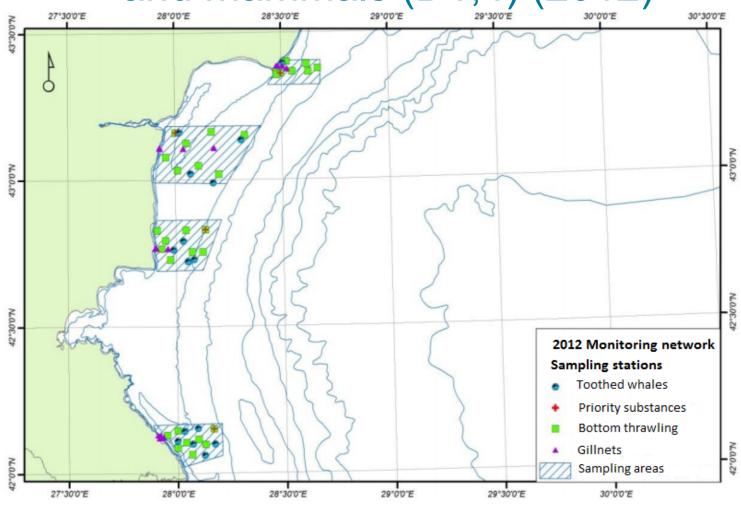


2012 MONITORING STATIONS



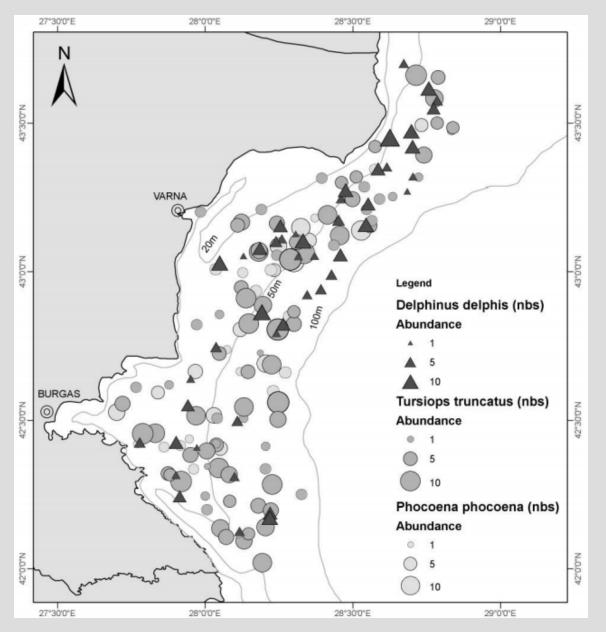


Monitoring of non-commercial fish (D1, 4) and mammals (D1,4) (2012)



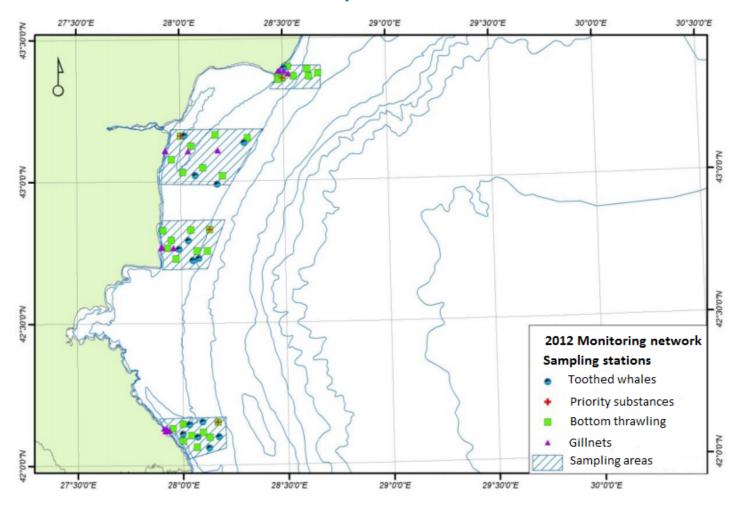


Monitoring marine mammals (2006-2011)



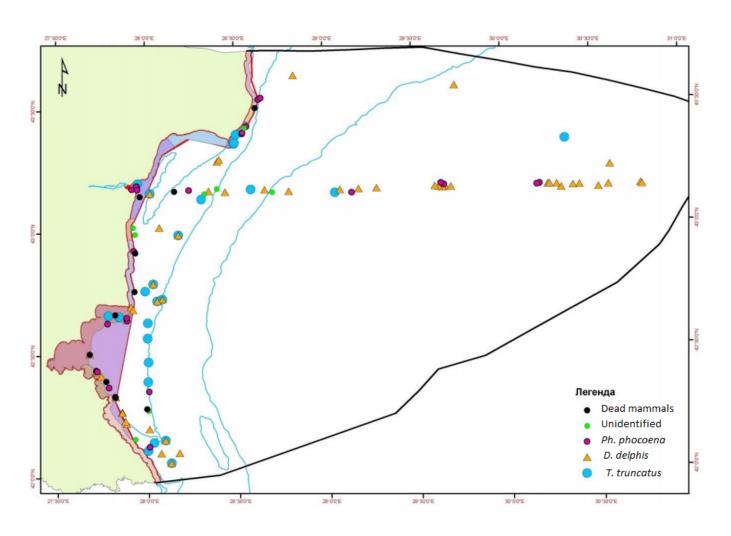


Monitoring of marine mammals (toothed whales), 2006-2011



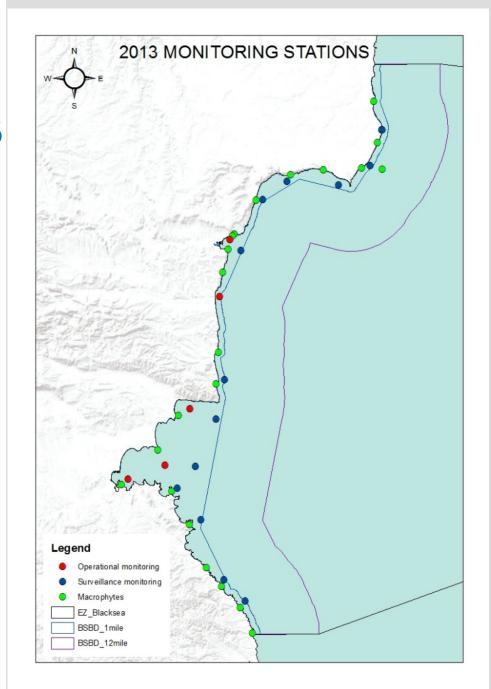


2012 marine mammals – distance sampling



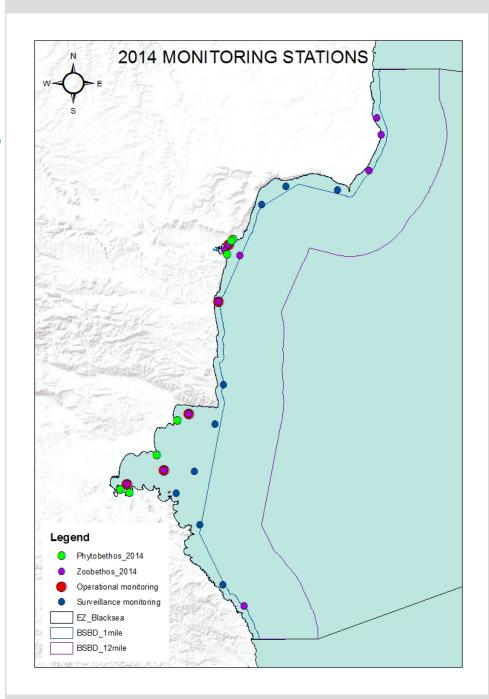


2013





2014

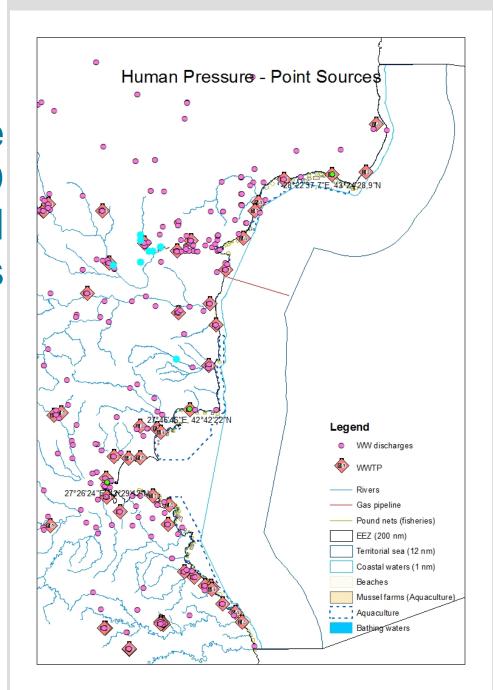




PART 2: MONITORING - HUMAN PRESSURE ON WATERS Black Sea Basin Directorate, BSBD

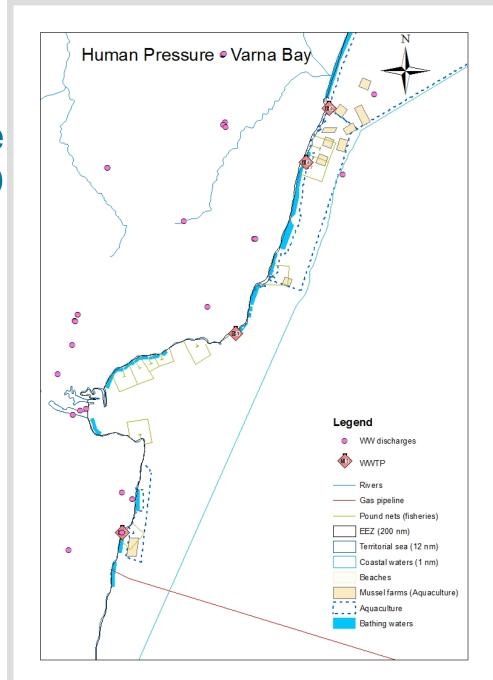


Human pressure Art. 8b, MSFD Data provided by polluters



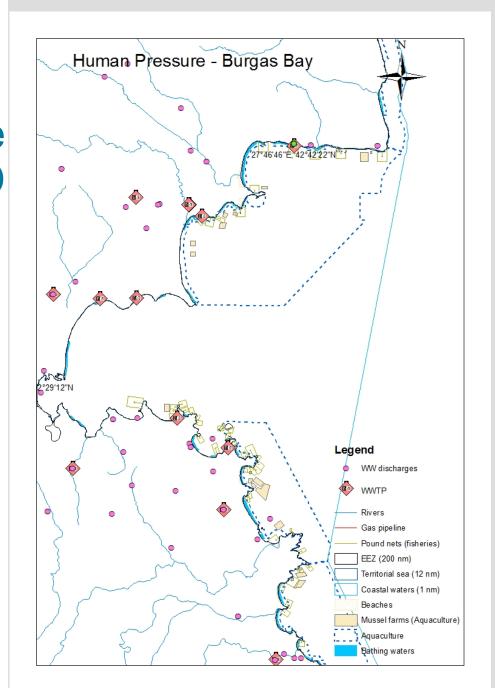


Human pressure Art. 8b, MSFD



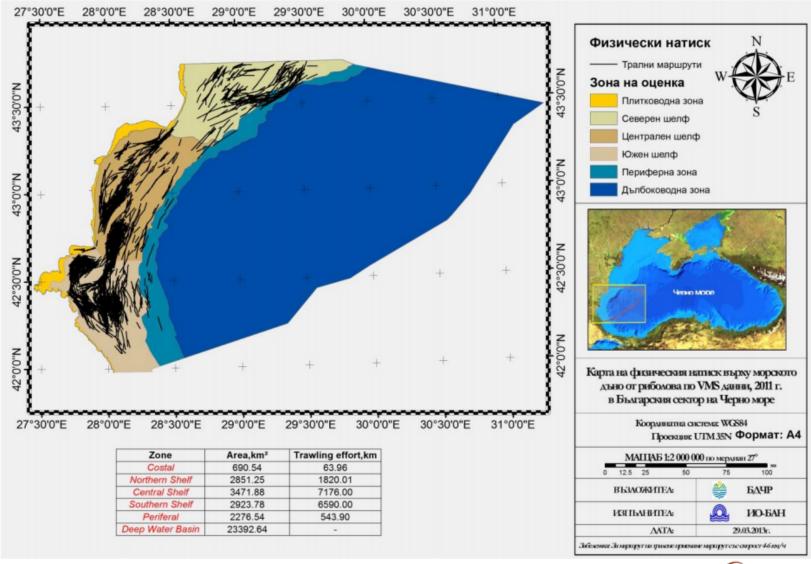


Human pressure Art. 8b, MSFD



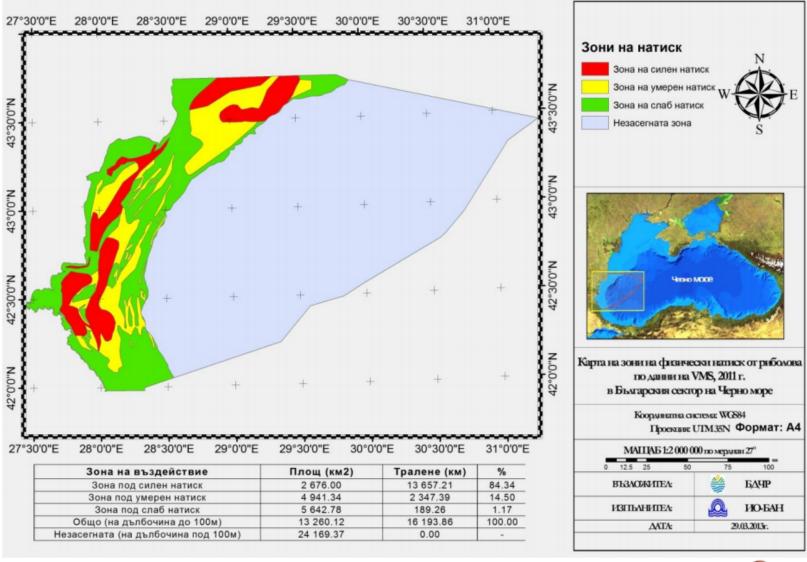


Thrawling pressure – D6 (Seabed integrity)





Thrawling pressure – D6 (Seabed integrity)





PART 3: COORDINATED MONITORING PROGRAMMES (art. 11, MSFD)



MAJOR CHALLENGE

Coordinated BG-RO monitoring programmes (15.10.2014)

Agreed indicators

Harmonized indicators

Common parameters (list)

Ex: Monitoring programme D1,4: marine mammals:

Parameter: common dolphin

Common parameters + common methods

Ex: Monitoring programme D1,4: marine mammals:

Parameter: common dolphin

Method: distance sampling



WORKFLOW

COMMON PARAMETERS
COMMON METHODS

AGREED PROGRAMMES
HARMONIZED INDICATORS

COHERENT CRITERIA

COHERENT BETWEEN
BULGARIA AND ROMANIA GES
AND TARGETS WITHIN THE



Approach – monitoring fact sheets (MFS)

MFS Monitoring programme: D1, D4 - Biodiversity_Mammals (Example: BLKBG D1,D4 Mammals) MFS Monitoring subprogramme 1: Highly mobile species - Mammals MFS Level of pressure in marine environment (?) (Other examples) MFS Monitoring subprogramme 2: Activities MFS Monitoring subprogramme 3: Measures



Current challenges

- Assessing the level of pressure on highly mobile species (ex.: shipping on dolphins)
- Addressing the pressure-impact relationship

 impact from land-based sources on the
 biodiversity (local pressure local impact).
- How to determine the most appropriate sampling stations if not having enough data (littoral habitats)?
- How to determine the spatial resolution in the water column habitats (e.g. by using the gradient change in the chlorophyll-a concentration)?
- Estimate the cost of the monitoring programme?
- Monitoring on seabirds not conducted in the current monitoring programme



Imagine the result

