

Noise Hot Spot Mediterranean Sea – Sources and Challenges

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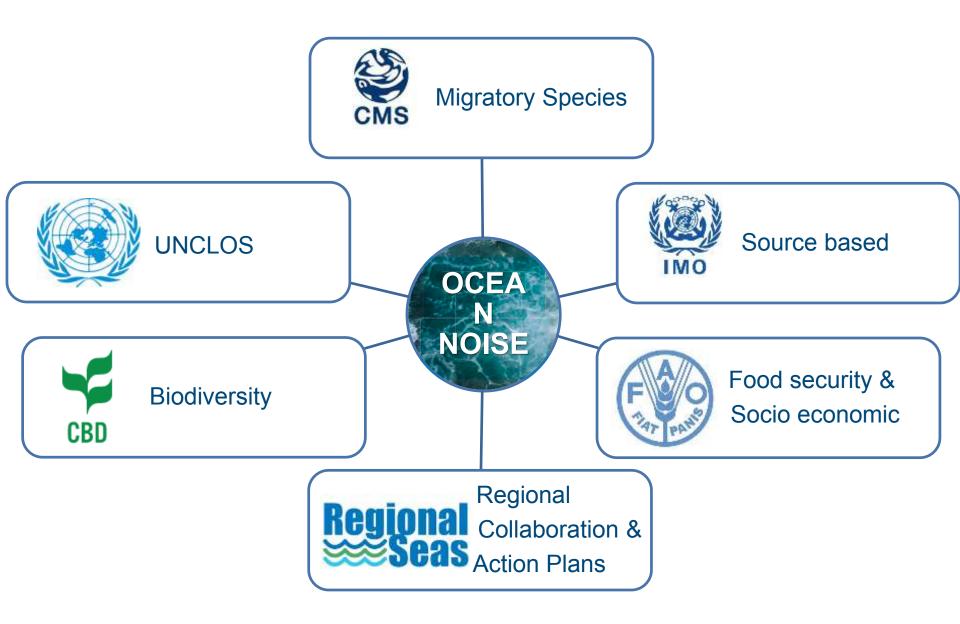




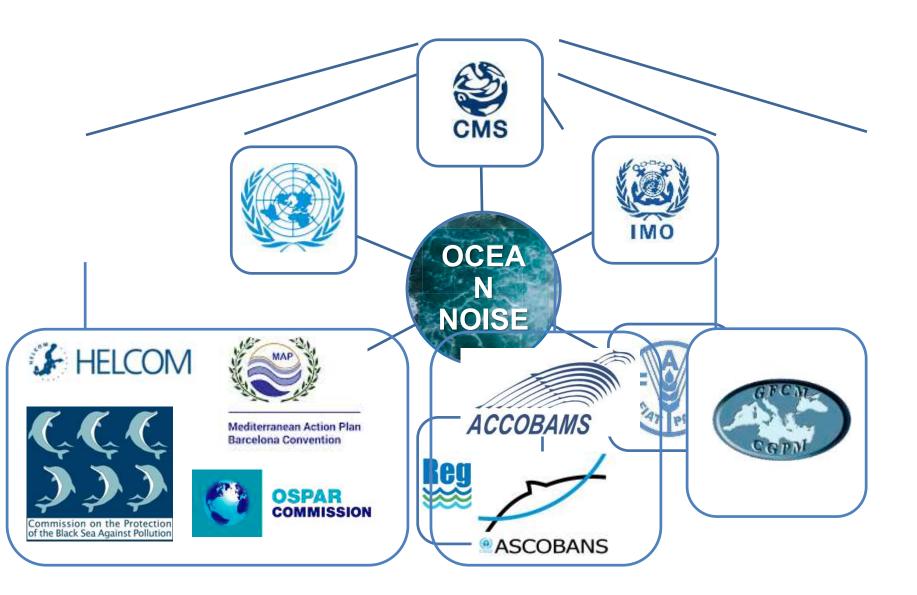
OceanCare











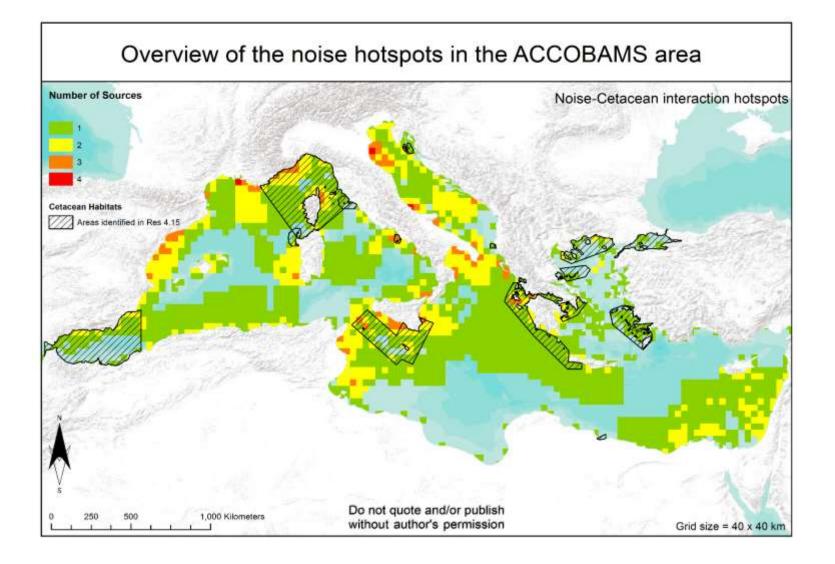






OVERVIEW OF THE NOISE HOTSPOTS IN THE ACCOBAMS AREA PART 1 – MEDITERRANEAN SEA







Multilateral / Regional Environmental Agreements address Anthropogenic Noise

- 1. Promote to apply **Best Available Techniques (BAT) and Best** Environmental Practice (BEP)
 - including measures to avoid, minimise & mitigate
 - adverse impacts of noise generating activities
- 2. Conducting Environmental Impact Assessments (EIAs)
- 3. Specific consideration of Fisheries restricted Areas (FRAs), critical habitat & management plans of protected areas
- 4. Promote further **research**



ACCOBAMS. Resolution 4.17. NOISE GUIDELINES

Res. 4.17 (2010)

ACCOBAMS Parties asked the Secretariat and Scientific Committee to "detect the most affected sites [by anthropogenic noise] within the region and determine if cetacean critical habitats are involved"

4. Encourages Parties,

to avoid or minimize producing noise in marine protected areas, as well as in particular in areas containing critical habitat of cetaceans likely to be affected by man-made sound



ACCOBAMS. NOISE GUIDELINES

General Guidelines

Avoid cetaceans' key habitats and marine protected areas, define appropriate buffer zones around them; consider the possible impact of long-range propagation

Closed areas should be avoided and surrounded by appropriate buffer zones

Guidelines for seismic surveys and airgun uses

Use of the lowest practicable source power

Address cumulative impacts

Guidelines for (military sonar and civil) high power sonar

Shut- downs & area avoidance



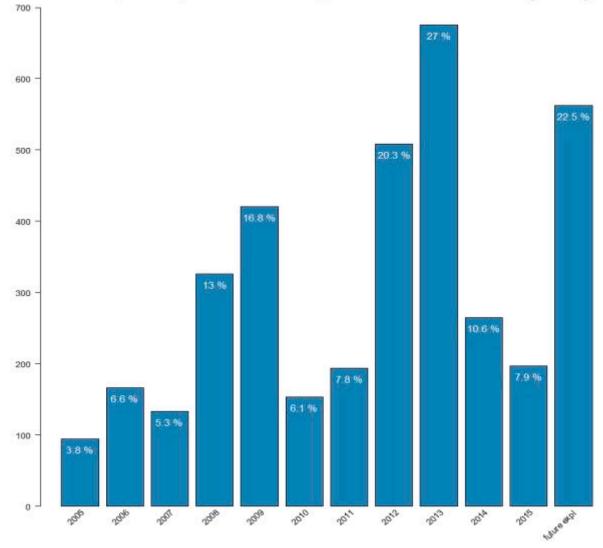


Every 10 seconds. 24 hours. Several weeks.



Annual use of surface area by seismic explorations

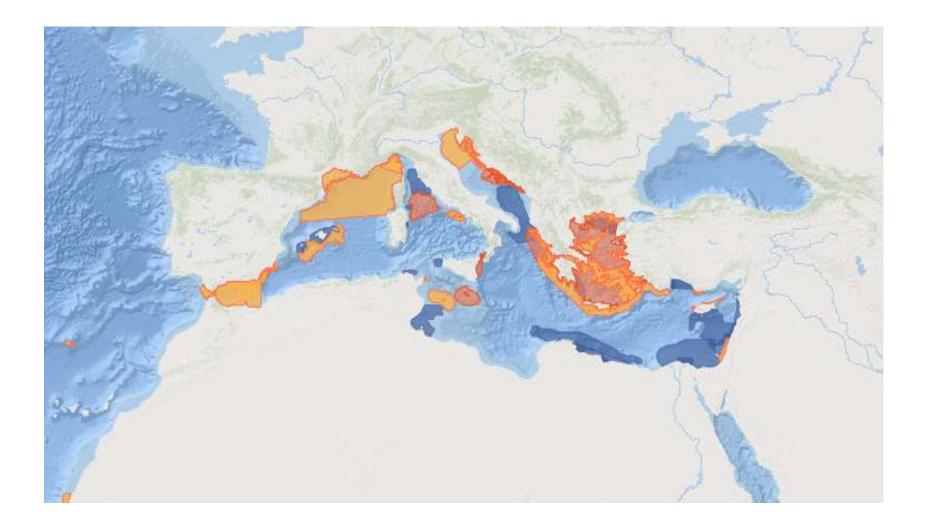
Surface potentially used for seismic exploration in the Mediterranean (10³ km²)



Numbers are likely an underestimation as data for Libyan waters for example are not included.

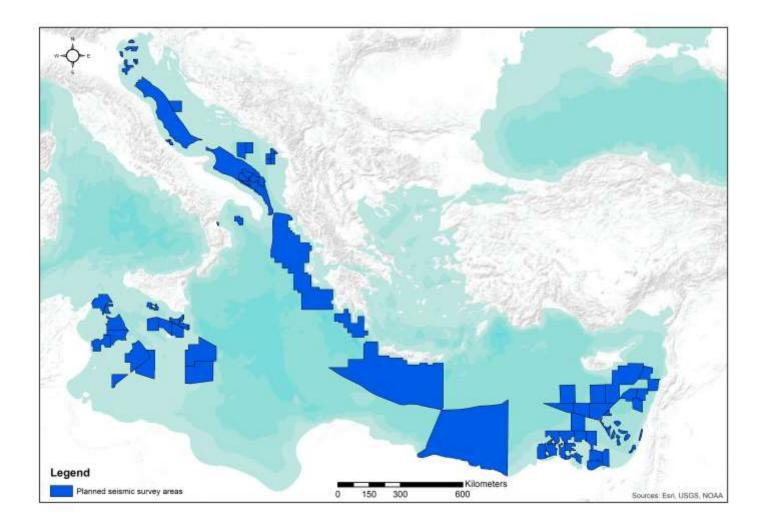


IMMAs





Future seismic exploration areas in South Eastern European waters





Capacity Building & Stakeholder Engagement

Capacity Building Workshop 1: OceanCare, NRDC & DBU

November 22-23, 2017 in Split, Croatia

62 participants from 17 countries

16 Recommendations for mitigating the impact of underwater noise on marine biodiversity in the south eastern European waters in the Mediterranean Sea



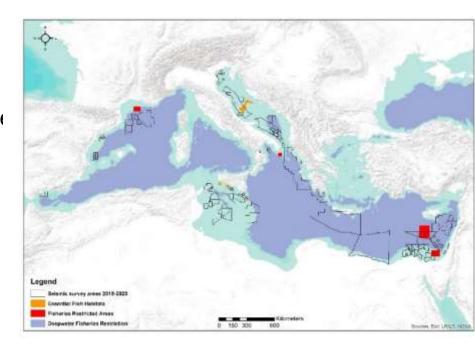


Capacity Building & Stakeholder Engagement

Capacity Building Workshop 2: GFCM & OceanCare February 21-22, 2019 in Rome, Italy and the FAO headquarters

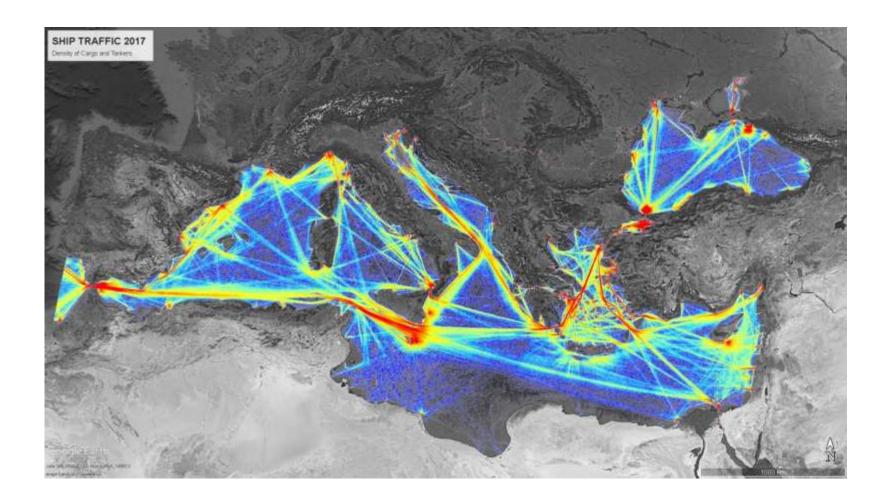
Recommendations incl.:

- Cooperation among international Organizations
- Conduct multi-sectoral SEAs & EIAs
- Protect FRAs from impacts of ocean noise
- Consider socio-economic impacts





SHIPPING: Ship density map - Cargos & Tankers





SHIPPING NOISE

Front. Mar. Sci., 16 August 2019 | https://doi.org/10.3389/fmars.2019.00505 ()

The Role of Slower Vessel Speeds in Reducing Greenhouse Gas Emissions, Underwater Noise and Collision Risk to Whales

Russell Leaper'

International Fund for Animal Welfare, London, United Kingdom

IMO Objective (2018): GHG Emission reduction of at least 50% by 2050

RESULTS

- \rightarrow 10% speed reduction by global fleet to reduce GHG emissions by ca. 13%
- \rightarrow 10% speed reduction could reduce total sound energy from shipping by ca. 40%
- → Associated reduction in overall ship strike risk has higher uncertainty but could be around 50%







But who makes the first step?

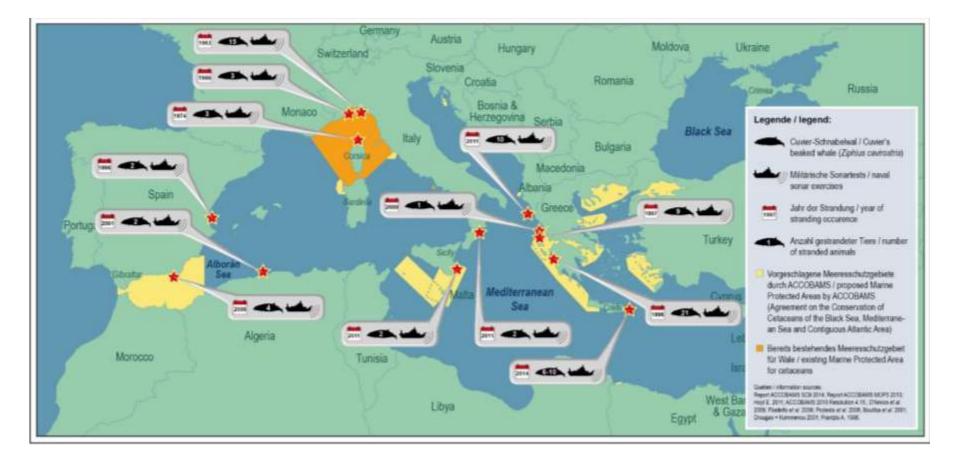


MILITARY ACTIVITIES

"Psssst. It's a secret"

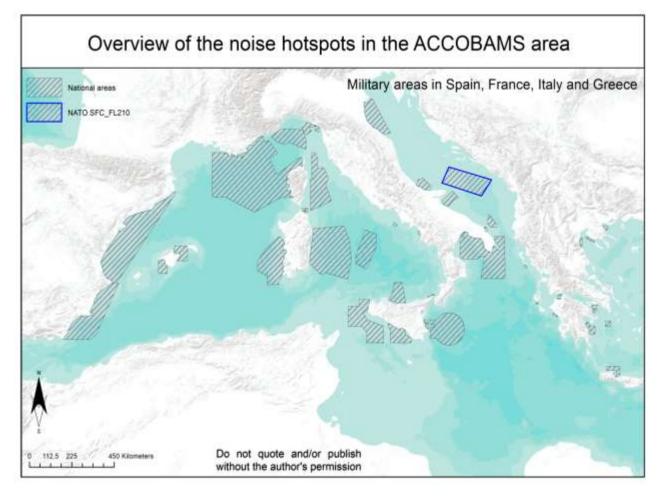
... isn't it?







MILITARY AREAS



Data on spatial extent of military areas of only 4 Mediterranean countries was available.

Military areas in Spain, France, Italy and Greece, covering almost 18.2% of sea surface in the Mediterranean Sea.



MILITARY ACTIVITIES

UNCLOS Article 236

"Provisions ... do not apply to any warship, naval auxiliary,"

ACCOBAMS Treaty:

NO provision excludes its application to military activities

 \rightarrow "so far as reasonable"

US: Settlement Agreements





MILITARY ACTIVITIES

Environmental & Species protection provisions applicable to military activities?

e.g.

MSFD itself which states in Article 2.2:

"This Directive shall not apply to activities the sole purpose of which is defence or national security."

"Member States shall, however, endeavor to ensure that such activities are conducted in a manner that is compatible, so far as reasonable and practicable, with the objectives of this Directive."





MILITARY ACTIVITIES

European Parliament. Resolution in 2004

Calls on Member States to adopt a "Moratorium on the deployment of high-intensity active naval sonars until a global assessment of their cumulative environment impact on marine mammals, fish and other marine life has been completed".

 \rightarrow imposed by the Spanish Government in the Canary Islands (2004).

 \rightarrow highly successful measure



REDUCE THE NOISE!

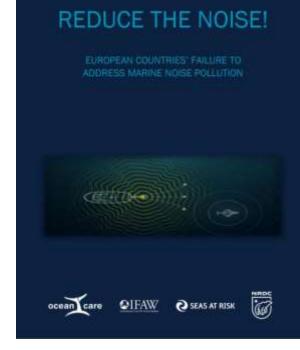
Report by OceanCare, IFAW, NRDC & Seas at Risk

Requirements:

- MS to identify measures to achieve or maintain GES
- → GES is achieved when "underwater noise is at levels that do not adversely affect the marine environment"

Commission conclusion [July 2018]: *"achieving GES by 2020 across all European marine regions remains unlikely"* given weaknesses in the PoM and gaps in coordination between countries







Monitoring as "only target" towards GES?

Is the **Noise Registry** the single consequence after about 10 years since the adoption of the MSFD?

Setting up and making use of **Noise Registry** varies by Regional Seas Conventions and MS.

Some MS still have **no** such registry in place.







RECOMMENDATIONS

- Apply the **Precautionary Approach**, taking immediate action to prevent, reduce, and mitigate certain noise sources and levels
- Apply and consistently transpose CMS EIA Noise Guidelines & IMO Ship Quieting Guidelines into domestic legislation
- Promote and apply BAT& BEP to be used for any activities given approval
- (Protected) Area Based Management & Establish Quiet Zones



RECOMMENDATIONS

- Overall: Exploit the overlap between the REDUCTION OF NOISE
 & combating CLIMATE CHANGE
- AGREE PHASE OUT STRATEGY FOR HYDROCARBON EXPLORATION
- AGREE EU-wide shipping strategy (quieting technologies, speed reductions, incentive programs, port policy strategy, *emission and noise reduction*)



