Template for Submission of Scientific Information to Describe Areas Meeting Scientific Criteria for Ecologically or Biologically Significant Marine Areas

Title/Name of the area: The Strait of Gibraltar

Presented by (*names, affiliations, title, contact details)*

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Abstract (*in less than 150 words)*

The southwestern Mediterranean hosts a very important and diverse feeding ground of endangered sea turtles. Recent genetic studies confirm that most of green and loggerhead sea turtles in the western Mediterranean breed in the eastern American and western African coasts. Furthermore, leatherback, hawksbill and Kemp's ridley turtles observed within the western Mediterranean have also an atlantic origin.

Thus, these endangered sea turtles and many other marine species such as cetaceans, seals and blue tuna arrive to the western Mediterranean through the Strait of Gibraltar, a very narrow obligated corridor with a very intense human activity that suppose a severe threat for the migration, presence and diversity of sea turtles (and other marine megafauna) in the western Mediterranean.

The Strait of Gibraltar is a critical habitat for all these migratory species that require specific measures to decrease threats to biodiversity.

Introduction

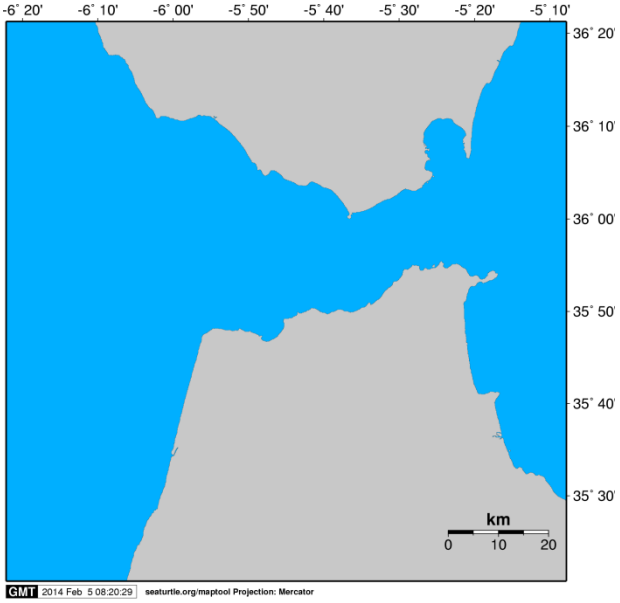
(To include: feature type(s) presented, geographic description, depth range, oceanography, general information data reported, availability of models)

The migration of sea turtles through the Strait of Gibraltar is a well known phenomenon. Recent studies using genetic markers confirm that the 98% of loggerhead turtles (*Caretta caretta*) in the southwestern Mediterranean have an Atlantic origin (Revelles et al., 2007; Monzón-Argüello et al., 2009; Carreras et al., 2011). The rookeries where breed these turtles are mainly Florida, México and Cape Verde. Special mention deserves the rookery of Cape Verde that constitutes aproximately 10 % of loggerheads in the south western Mediterranean. This African population is severely threatened (Marco et al., 2012) and has recently recognized as the most endangfered loggerhead population in the Atlantic basin (Wallace et al., 2011). Leatherback turtles (*Dermochelys coriacea*) are also very common in the Mediterranean and all of them come from the Caribbean and atlantic African coasts. A recent study also shows that green turtles (*Chelonia mydas*) found in the spanish mediterranean coast have an atlantic origin, mainly from African rookeries of Guinea Bissau (Carreras et al., 2014). The observation of Kemp's ridley turtles (*Lepidochelys kempii*) is increasing in Mediterranean waters. This critically endangered species only nests in the Gulf of Mexico and cross the Atlantic to enter in the Mediterranean through the Strait of Gibraltar (Carreras et al., 2014).

Location

(Indicate the geographic location of the area/feature. This should include a location map. It should state if the area is within or outside national jurisdiction, or straddling both.)

The Strait of Gibraltar is located between the southern coast of Spain and the northern coast of Morocco (35˚45' to 36˚10' N latitude and 5˚10' to 6˚00' W longitude).



Feature description of the proposed area
(This should include information about the characteristics of the feature to be proposed, e.g. in terms of physical description (water column feature, benthic feature, or both), biological communities, role in ecosystem function, and then refer to the data/information that is available to support the proposal and whether models are available in the absence of data. This needs to be supported where possible with maps, models, reference to analysis, or the level of research in the area)

The Strait of Gibraltar is a narrow strait that connects the Atlantic Ocean to the Mediterranean Sea and separates Gibraltar and Spain in Europe from Morocco in Africa. It is also known as STROG (Strait Of Gibraltar) in naval use. Europe and Africa are separated by 7.7 nautical miles (14.3 km) of ocean at the strait's narrowest point. The Strait's depth ranges between 300 and 900 m which possibly interacted with the lower mean sea level of the last major glaciation 20,000 years ago when the level of the sea is believed to have been lower by 110–120. The terrestrial Spanish side of the Strait is protected under El Estrecho Natural Park.

The Strait of Gibraltar links the Atlantic Ocean directly to the Mediterranean Sea. This direct linkage creates certain unique flow and wave patterns. These unique patterns are created due to the interaction of various regional and global evaporative forces, tidal forces, and wind forces. Through the strait, water generally flows more or less continually in both an eastward and a westward direction. A smaller amount of deeper saltier and therefore denser waters continually work their way westwards (the Mediterranean outflow), while a larger amount of surface waters with lower salinity and density continually work their way eastwards (the Mediterranean inflow). As the evaporation exceeds over the sum of precipitation and river discharges in the Mediterranean Sea, the Atlantic inflow slightly exceeds around 4–5% the outflow of Mediterranean water to balance the net loss.

Feature condition and future outlook of the proposed area
(Description of the current condition of the area – is this static, declining, improving, what are the particular vulnerabilities? Any planned research/programmes/investigations?)

During the last years the number of stranded and bycatched turtles is increasing in the area. Moreover, the presence of rare species such as the Kemp's ridley and green turtles are increasing in the Strait and western Mediterranean, probably as an effect of the recuperation of their main rookeries. However, the threats to the sea turtles when passing through the Strait of Gibraltar are growing.

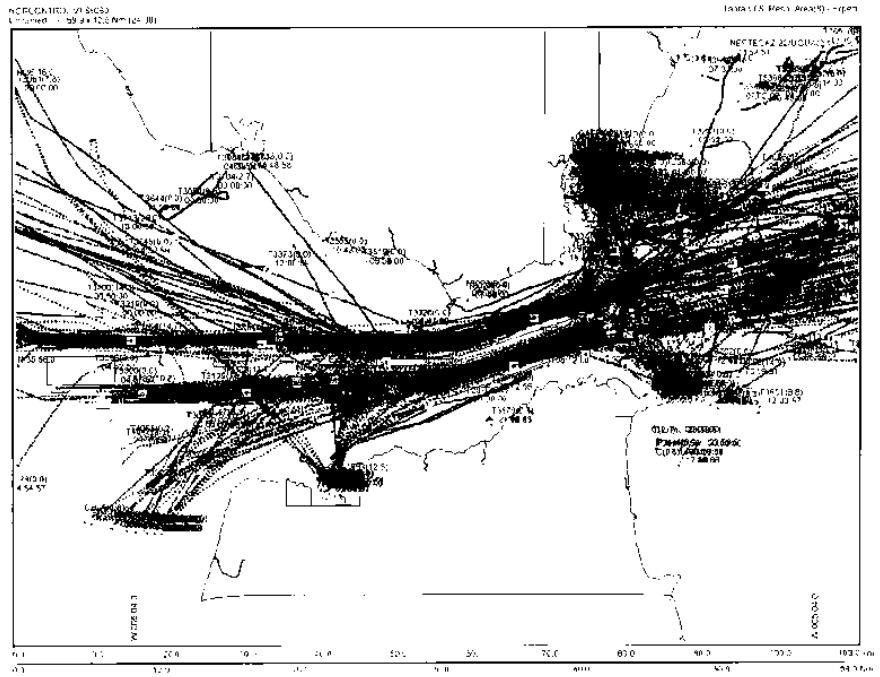
The area around the Strait of Gibraltar, particularly at the Spanish port of Algeciras on the Bay of Gibraltar, is highly industrialized and home to many polluting factories. It is a busy thoroughfare as well as a fueling location for ships and oil and fuel tankers. This puts the Strait at a high risk for

collisions and resulting spills. In fact there have been several 'mini spills' during the last years. The Strait has the fourth highest volume of bunkering in the world. More than 106,000 ships, 5,000 of them oil tankers – ten percent of global shipping – pass through the Strait of Gibraltar every year. Water quality analyses have found levels of benzene to be 22 times higher than legal limits. Industrial expansion is planned for Gibraltar harbor and other locations in the region around the Strait.

Moreover, the maritime traffic is one of the main threats to marine megavertebrates. Every year the traffic is of aprox. 100,000 transits. In general the flow of maritime traffic follows two fundamental axes. The most important in terms of traffic density, is the longitudinal axis defined by the tracks of the ships passing from the Mediterranean Sea towards the Atlantic Ocean and vice versa. The second axis is defined by the tracks of the vessels, mainly ferry ships and High Speed Crafts, connecting the ports located on both sides of the Strait.

Fishing bycatch is a very important threat for sea turtles and cetaceans in the Strait of Gibraltar. Thousands of turtles are captured in the Strait and close areas of the Gulf of Cadiz and the Alboran Sea, especially by drifting longline and driftnet. These threats include illegal fishing as well as the impact of abandoned fishing gears such as ghost nets.

Important projects that are being developing or planning for the Strait of Gibraltar such as large offshore wind farms and tidal power stations, channels or dams for the communication between Africa and Europe, marine power lines, etc, should be considered when assessing the impact of human activities on sea turtles and other endangered marine species.



Cumulative maritime traffic radar surveillance picture Source: Tarifa VTS

Assessment of the area against CBD EBSA Criteria

(Discuss the area in relation to each of the CBD criteria and relate the best available science. Note that a proposed area for EBSA description may qualify on the basis of one or more of the criteria, and that the polygons of the EBSA need not be defined with exact precision. And modeling may be used to estimate the presence of EBSA attributes. Please note where there are significant information gaps)

CBD EBSA Criteria (Annex I to decision IX/20)	**Description** (Annex I to decision IX/20)	**Ranking of criterion relevance** (please mark one column with an X)			
		No information	**Low**	**Medium**	**High**
Uniqueness or	Area contains either (i) unique ("the only one of				

rarity	its kind"), rare (occurs only in few locations) or endemic species, populations or communities, and/or (ii) unique, rare or distinct, habitats or ecosystems; and/or (iii) unique or unusual geomorphological or oceanographic features.				X
Explanation for ranking The area is a unique natural corridor of obligated use by endangered marine megavertebrates (cetaceans, sea turtles, blue tuna) during their migrations.					
Special importance for life-history stages of species	Areas that are required for a population to survive and thrive.			X	
Explanation for ranking This area is a critical habitat for the migration of endangered sea turtles in order to arrive to important mediterranean feeding grounds, as well as to return after maturation to their nesting beaches					
Importance for threatened, endangered or declining species and/or habitats	Area containing habitat for the survival and recovery of endangered, threatened, declining species or area with significant assemblages of such species.				X
Explanation for ranking Very important area for the migration of the endangered loggerhead turtle, including the population of the eastern atlantic, the critically endangered Kemp's ridley sea turtle of the Gulf of Mexico and the threatened atlantic leatherback and green turtles.					
Vulnerability, fragility, sensitivity, or slow recovery	Areas that contain a relatively high proportion of sensitive habitats, biotopes or species that are functionally fragile (highly susceptible to degradation or depletion by human activity or by natural events) or with slow recovery.				X
Explanation for ranking The area is a very sensitive habitat which function as a very important natural corridor for many atlantic species that migrate to the southwestern Mediterranean where they refuge and feed during prolonged periods					
Biological productivity	Area containing species, populations or communities with comparatively higher natural biological productivity.	X			
Explanation for ranking					
Biological diversity	Area contains comparatively higher diversity of ecosystems, habitats, communities, or species, or has higher genetic diversity.				X
Explanation for ranking The area contains the highest level of sea turtle diversity in the Mediterranean, with the presence of 5 species and for Caretta caretta individuals of at least 4 regional management units from the Mediterranean and Atlantic. One of this RMU (eastern atlantic) has recently considered one of the 11 world most endangered loggerhead populations.					
Naturalness	Area with a comparatively higher degree of naturalness as a result of the lack of or low level of human-induced disturbance or degradation.		X		
Explanation for ranking The area suffer a high degree of human use and severe environmental impacts mainly by marine traffic					

Sharing experiences and information applying other criteria (Optional)

Other Criteria	Description	Ranking of criterion relevance (please mark one column with an X)			
		Don't Know	Low	Medium	High
Add relevant criteria					
Explanation for ranking					

References

(e.g. relevant documents and publications, including URL where available; relevant data sets, including where these are located; information pertaining to relevant audio/visual material, video, models, etc.)

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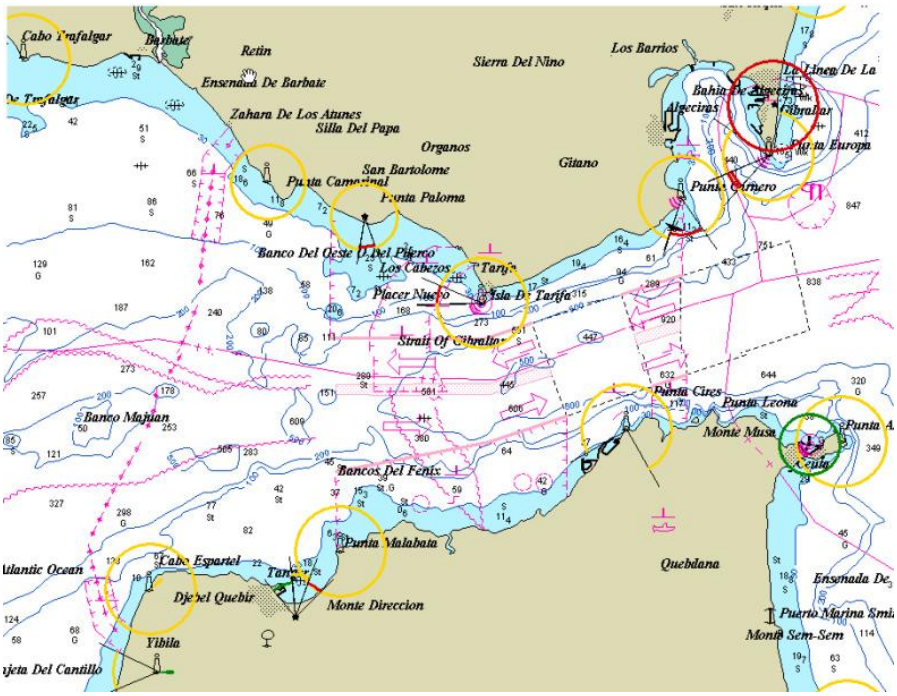
Maps and Figures



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