

### Area Size

3,813 km<sup>2</sup>

### Qualifying Species and Criteria

Common dolphin - *Delphinus delphis*  
Criterion A; C (i, ii)

Common bottlenose dolphin -  
*Tursiops truncatus*  
Criterion A; B (i); C (i, ii); D (i)

### Marine Mammal Diversity

[*Monachus monachus*]

### Summary

The Mediterranean continental shelves of the Southeast Levantine Sea host resident populations of Vulnerable common bottlenose dolphins (*Tursiops truncatus*) and Endangered common dolphins (*Delphinus delphis*). Sightings of both species span all seasons with calves and newborns observed regularly. Given the threatened state of the Mediterranean subpopulations of both species, the area contains viable habitats ensuring their continual survival. The local common bottlenose dolphins are genetically and morphometrically differentiated from other studied Mediterranean populations. The common dolphins are seemingly isolated from other known Mediterranean populations.

# Coastal Shelf Waters of the South East Levantine Sea Important Marine Mammal Area - IMMA

## Description

### Criterion A – Species or Population Vulnerability

The Mediterranean subpopulation of common bottlenose dolphin is assessed as Vulnerable on the IUCN Red List of Threatened Species. Since 1999 to date, a total of 650 half-day dedicated, mostly near-shore, surveys aboard small boats and private yachts were performed by IMMRAC, covering over 22,000 km. The common bottlenose dolphin, by far the most sighted species, is distributed throughout Israeli coastal waters but also sighted as far as 30 km offshore, over water depths of ~1,300m.

The Mediterranean subpopulation of common dolphin is assessed as Endangered on the IUCN Red List of Threatened Species. During a recent workshop on the conservation status of the Mediterranean short-beaked common dolphin, it became evident that ever since the last evaluation by the IUCN a declining trend in presence, abundance and habitat suitability of this species has occurred in several Mediterranean regions where long-term studies are ongoing.

### Criterion B: Distribution and Abundance

#### Sub-criterion Bi: Small and Resident Populations

Long term ecological research on the population of common bottlenose dolphins along the Israeli coastline shows a substantial

nucleus with year-round and inter-annual site fidelity and with uniform distribution in the proposed area. Photo-identification studies indicate, at least partially, an 'open' population, of which an average 8.8 (n = 176; 1996-2015) die and beach on the Israeli shore annually, with a relatively low standard deviation (2.6) over the last 2 decades, suggesting a small but stable-sized population.

## **Criterion C: Key Life Cycle Activities**

### **Sub-criterion Ci: Reproductive Areas**

Long term ecological research on the population of common bottlenose dolphins along the Israeli coastline shows the overall probability of encountering young offspring in the sighted group to be 38%. Other research studies have observed calf and newborn common dolphins throughout the area and sighting records confirm calves are present year-round.

### **Sub-criterion Cii: Feeding Areas**

Common bottlenose dolphins are regularly observed diving behind bottom trawlers and occasionally caught on video pulling fish protruding from fishing gears. Entangled victims are almost always with full stomachs. Stomach content analysis suggests feeding on bottom trawl catch and bycatch, and sighting records confirm a significant interaction with bottom trawlers. The chances of encountering dolphins in the vicinity of trawlers being almost an order of magnitude greater than in the open sea. Trawler catch and bycatch is not the sole source, the overall similarity of biomass composition between pooled dolphin stomach contents and fisheries catch in the study area was expressed by a Pianka index of 0.49. These findings along with occasional observations of surface feeding suggest the area to be an active feeding ground.

Pelagic feeding events are regularly observed for common dolphins within the area. Sighting records collected by local research bodies confirm both surface feeding and interaction

with bottom trawlers. Common Dolphins are regularly observed following bottom trawlers. Preliminary stomach content analysis suggests feeding on both catch and discards from the bottom trawl nets.

## **Criterion D: Special Attributes**

### **Sub-criterion Di: Distinctiveness**

There is compelling morphometric and genetic evidence that common bottlenose dolphins within the area are representatives of a distinct, smaller-sized, population unit of wider Mediterranean bottlenose dolphin subpopulation, the spatial extent and boundaries of which are presently unknown.

## **Supporting Information**

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MARINE MAMMAL PROTECTED AREAS TASK FORCE

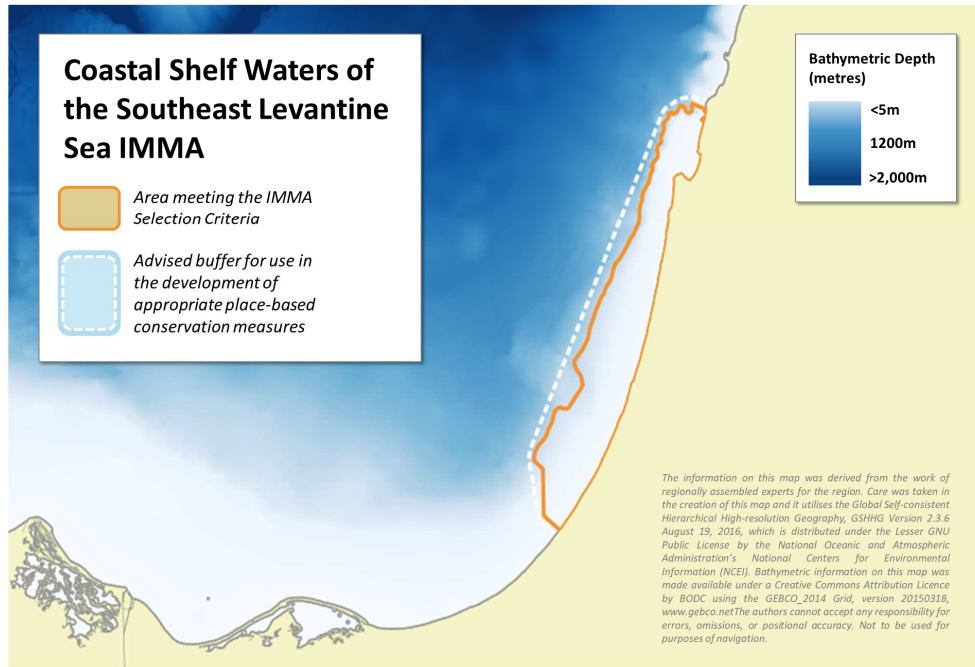


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# Annex I

## Supplementary Maps



# Annex II

## List of Primary and Secondary Species

### Primary Species – Meet the IMMA Selection Criteria

Scientific Name	Common Name of Species	Population / Subpopulation Name	IUCN Red List Status
<i>Delphinus delphis</i>	Common dolphin	Mediterranean Subpopulation	Endangered
<i>Tursiops truncatus</i>	Common bottlenose dolphin	Mediterranean Subpopulation	Vulnerable

### Secondary Species – Do not individually meet the IMMA Selection Criteria but are present within the area

Scientific Name	Common Name of Species	Population / Subpopulation Name	IUCN Red List Status
<i>Monachus monachus</i>	Mediterranean monk seal	Eastern Mediterranean subpopulation	Endangered