

Blue lines indicate the area meeting the ISRA Criteria; dashed lines indicate the suggested buffer for use in the development of appropriate place-based conservation measures

GAZA ISRA

Mediterranean and Black Seas Region

SUMMARY

Gaza is located off the coast of the Gaza Strip, Palestine in the eastern Mediterranean Sea. The area is influenced by the Libyan–Egyptian current, and the surface current flowing eastward along the continental slope off Egypt and then northward along Israel and Lebanon. Within this area there are: **threatened species** and **undefined aggregations** (Spinetail Devil Ray *Mobula mobular*).

CRITERIA

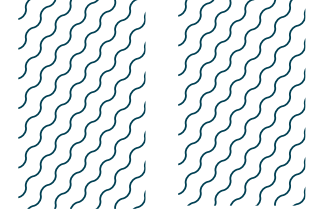
Criterion A - Vulnerability; Sub-criterion C5 - Undefined Aggregations

— —
**PALESTINE
 (GAZA),
 ISRAEL**

— —
0-1,000 metres

— —
998.6 km²





DESCRIPTION OF HABITAT

Gaza is located off the coast of the Gaza Strip, Palestine in the eastern Mediterranean Sea. Off the coast of Gaza, the seabed drops quickly beyond the depth of 100 m (Ubeid 2011). The area is influenced by both the Libyan-Egyptian current, as well as the surface current flowing eastward along the continental slope off Egypt and northward along Israel and Lebanon (Taupier-Letage et al. 2007).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 1,000 m based on the depth range of Qualifying Species in the area.

ISRA CRITERIA

CRITERION A - VULNERABILITY

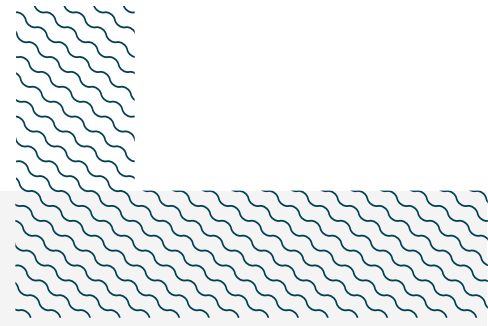
The one Qualifying Species within the area is considered threatened with extinction according to the IUCN Red List of Threatened Species™. The Spinetail Devil Ray is assessed as Endangered (Marshall et al. 2022).

SUB-CRITERION C5 - UNDEFINED AGGREGATIONS

Gaza is an important aggregation area for one ray species.

Spinetail Devil Rays undergo a seasonal migration from the broader Mediterranean Sea region to the southeast corner of this body of water (Notarbartolo di Sciara et al. 2015). Results from a satellite tagging study confirm these west-to-east movements during the boreal winter and the beginning of spring (Notarbartolo di Sciara pers. comm. 2023). Spinetail Devil Rays have been observed frequenting this area since at least the 1970s for a narrow time window from February to April (Abudaya et al. 2018). Most of the catch data for the species in this region originates from Gaza, with up to 370 rays caught in one year (Abudaya et al. 2018; Neri et al. 2022). Over 90% of landed male specimens had sperm oozing from their claspers (Abudaya et al. 2018), suggesting potential importance of the area for reproduction. Spinetail Devil Ray landings between 2014–2016 had a female to male ratio of 8.8/100, and it is unclear why females are so low in the catch. The temporal coincidence of the presence of the Spinetail Devil Ray in this area in late winter and early spring, and with evidence of breeding physiology, support the hypothesis that the Spinetail Devil Ray seasonally migrates to the area for breeding purposes, however more data are needed to confirm the nature of this aggregation.





Acknowledgments

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Suggested citation

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QUALIFYING SPECIES

Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met									
				A	B	C1	C2	C3	C4	C5	D1	D2	
RAYS													
<i>Mobula mobular</i>	Spinetail Devil Ray	EN	0-1,112	X							X		

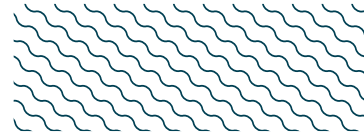
SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Alopias vulpinus</i>	Common Thresher	VU
<i>Carcharhinus altimus</i>	Bignose Shark	NT
<i>Carcharhinus limbatus</i>	Blacktip Shark	VU
<i>Carcharhinus plumbeus</i>	Sandbar Shark	EN
<i>Cetorhinus maximus</i>	Basking Shark	EN
<i>Isurus oxyrinchus</i>	Shortfin Mako	EN
<i>Odontaspis ferox</i>	Smalltooth Sand Tiger	VU
<i>Prionace glauca</i>	Blue Shark	CR*
<i>Sphyrna zygaena</i>	Smooth Hammerhead	VU
RAYS		
<i>Aetomylaeus bovinus</i>	Duckbill Eagle Ray	CR
<i>Myliobatis aquila</i>	Common Eagle Ray	CR
<i>Pteroplatytrygon violacea</i>	Pelagic Stingray	LC

*Assessed as CR in a Mediterranean regional assessment but considered NT globally.

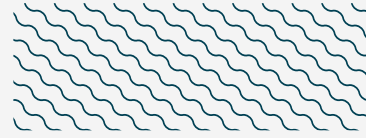
IUCN Red List of Threatened Species Categories are available by searching species names at www.iucnredlist.org. Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.





SUPPORTING INFORMATION

There are additional indications that Gaza is an important area for the movement of one ray species. The region off the coast of the Asian mainland, from the Gaza Strip, Palestine to northern Syria, has been identified as a potentially important movement area for the Spinetail Devil Ray. The species undergoes a seasonal migration from the broader region to the southeast corner of the Mediterranean Sea (Notarbartolo di Sciara et al. 2015) and has been observed frequenting this area since at least the 1970s for a narrow time window from February to April (Abudaya et al. 2018). Sporadic observations along this coast suggest the appearance of the species in March in groups up to 30 individuals (2018, 2020, 2023). Reports of large captures of at least 10 individuals off Lebanon in late winter (Michel Bariche pers. comm. 2023 including video documentation) further corroborate the geographic extent of the species' aggregations in this part of the Mediterranean during this period. To the north, there were ~300 specimens of the Spinetail Devil Ray caught by purse seiners off Samandag near the Syrian border in February 2016 (Sakalli 2017), with most animals reportedly released alive. Twelve days later, nine more rays were caught very close to the same location (Sakalli et al. 2016). There is anecdotal evidence that assemblages of the Spinetail Devil Ray also occur further to the west (Antalya) along the south coast of Türkiye in that season (e.g., Başusta & Özbek 2017). Further information is required to determine the importance of this broader region to the life history of the Spinetail Devil Ray.



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