

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

**DALIA BEACH ISRA**

**Mediterranean and Black Seas Region**

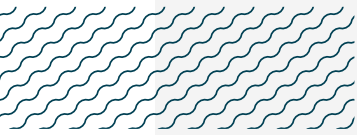
**SUMMARY**

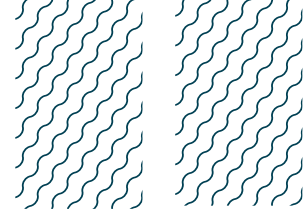
Dalia Beach is located on the Mediterranean coast of Israel. The area includes the Dor and Ma’agan Micha’el Islands nature reserve, and its coast is a part of the Carmel Coast Key Biodiversity Area. Sandy beaches bordered by Kurkar ridges characterise the site, and within it are submerged rocky sandstone areas (Kurkar reef patches), two estuaries, and other river mouths. Within this area there are: **threatened species, reproductive areas,** and areas with **distinctive attributes** (Blackchin Guitarfish *Glaucostegus cemiculus*).

**CRITERIA**

**Criterion A - Vulnerability; Sub-criterion C1 - Reproductive Areas; Sub-criterion D1 - Distinctiveness**

—	—
<b>ISRAEL</b>	—
—	—
<b>-1-20 metres</b>	—
—	—
<b>13.85 km<sup>2</sup></b>	—
—	—





## DESCRIPTION OF HABITAT

Dalia Beach is located on the Mediterranean coast of Israel. The coastline stretches ~10 km from Tel Dor to Tel Tananim and the area is characterised by sandy beaches. The Tananim Stream estuary borders the southern point of the area. This stream carries large quantities of organic matter, which flow directly into the sea basin. On the southern border of the estuary, other habitat features include a Kurkar ridge and submerged rocky Kurkar reef patches that are common to this region. Kurkar is an aeolian quartz sandstone with carbonate cement. These submerged rocky reef patches also occur at the northern border of this site (Tel Dor) and shelter the otherwise exposed coastline. In front of Ma'agan Michael beach, in the southern section of the area, there is a rocky reef with a few small islands ~200 m from the shoreline.

The area includes the Dor and Ma'agan Micha'el Islands nature reserve, and its coast is a part of the Carmel Coast Key Biodiversity Area (KBA 2023).

This Important Shark and Ray Area is benthic and is delineated from inshore and above surface waters (-1 m) to 20 m based on the bathymetry of 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 Blackchin Guitarfish is assessed as Critically Endangered (Kyne & Jabado 2019).

### SUB-CRITERION C1 - REPRODUCTIVE AREAS

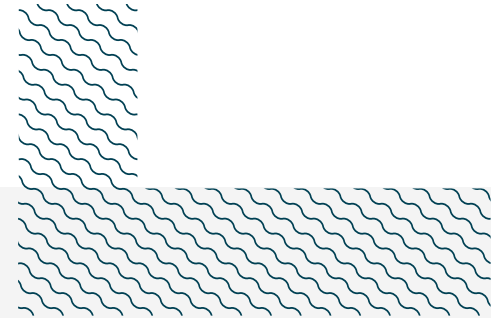
Dalia Beach is an important reproductive area for one ray species.

Seasonal visual surveys along the beach since 2016, a mark-recapture tagging program (2017-2019), and hundreds of citizen science reports year-round show the regular and predictable presence of neonate and young-of-the-year Blackchin Guitarfish at this site, with up to 700 individuals observed in a single survey (Barash et al. 2018; the MECO project unpubl. data 2023). Neonates (30-40 cm total length [TL]; size-at-birth 34 cm TL, Ebert & Dando 2021) with an open or recently closed umbilical scar or intact yolk sac are reported in late August, September, and October, indicating that parturition occurs in the area or close to it. Large females reportedly regularly captured during the boreal summer months (July-August), together with anecdotal observations of large females in August, support the notion that the area is most likely a pupping ground (Barash et al. 2018; Azrieli 2020; the MECO project unpubl. data 2023).

### SUB-CRITERION D1 - DISTINCTIVENESS

Neonate and young-of-the-year Blackchin Guitarfish display a unique behaviour in this area, leaving the water to rest on the wet sand throughout the day. They stay out of the water for up to 40 seconds before going back into the water by actively turning back or sliding back with the waves (Barash et al. 2018; A. Nashiv pers. comm. 2023). This behaviour of exiting the water has not been documented anywhere else in the world for any guitarfish species and is highly uncommon for sharks and rays in general. Seasonal surveys conducted over the last eight years counted dozens of individuals, and up

to ~700 individuals, in extremely shallow waters or out of the water during a single survey (Barash et al. 2018; A. Nashiv pers. comm. 2023). This phenomenon occurs during summer and continues to the beginning of autumn (end of August to November), when the sea water temperature is at its highest (~31°C), and the air temperature can reach 40°C. More research is required into the ecological advantages of this behaviour and its physiological mechanism.



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Adi Barash (Sharks in Israel), Ya'ara Grosmark (Sharks in Israel; Technion), Barak Azrieli (Sharks in Israel), and Christoph Rohner (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2023 ISRA Region 3 - Mediterranean and Black Seas workshop for their contributions to this process.

This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

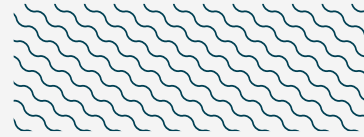
This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world's sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

### **Suggested citation**

IUCN SSC Shark Specialist Group. 2023. Dalia Beach ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

## 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
RAYs											
<i>Glaucostegus cemiculus</i>	Blackchin Guitarfish	CR	0-100	X		X					X



## REFERENCES

**Azrieli B. 2020.** Documenting a nearshore nursery ground for the blackchin guitarfish *Glaucostegus cemiculus*. Unpublished Master Thesis, University of Haifa, Haifa.

**Barash A, Salingre S, Grosmark Y, Rothman S, Stoilas VS, Maximiadi M, Tuncer S, Lapinski M, Nuez I, Bakiu R. 2018.** The MECO project (Mediterranean Elasmobranch Citizen Observations): Creating a large-scale database of elasmobranch observations using social media. In: Proceedings of the 22nd Annual European Elasmobranch Association Meeting, Peniche, Portugal, 12-14.

**Ebert DA, Dando M. 2021.** *Field guide to sharks, rays & chimaeras of Europe and the Mediterranean*. Princeton: Princeton University Press.

**Key Biodiversity Areas (KBA). 2023.** Key Biodiversity Areas. Available at: <http://www.keybiodiversityareas.org/> Accessed May 2023.

**Kyne PM, Jabado RW. 2019.** *Glaucostegus cemiculus*. *The IUCN Red List of Threatened Species 2019*: e.T104050689A104057239. <https://dx.doi.org/10.2305/IUCN.UK.2019-2.RLTS.T104050689A104057239.en>