

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

COSTA CHICA OF OAXACA ISRA

Central and South American Pacific Region

SUMMARY

Costa Chica of Oaxaca is located between Bahía de Huatulco and Puerto Escondido in Mexico. It includes the mouths of three main rivers that input freshwater and is characterised by mangroves and multiple bays along the coast with sand and muddy benthos. The area is highly productive due to the influence of distinctive strong-winds ('tehuano') that produce upwelling events and the input of freshwater during the rainy season. Within this area there are: **threatened species** (e.g., Scalloped Hammerhead *Sphyrna lewini*); and **reproductive areas** (e.g., Silky Shark *Carcharhinus falciformis*).

CRITERIA

Criterion A - Vulnerability; Sub-criterion C1 - Reproductive Areas

MEXICO

0-100 metres

4,605 km²





DESCRIPTION OF HABITAT

Costa Chica of Oaxaca extends from Bahía de Huatulco, Oaxaca to the border with the state of Guerrero in Mexico. Situated within the Pacific Central-American Coastal Large Marine Ecosystem, the area is located between Bahías de Huatulco and Puerto Escondido. This area includes the mouths of the Copalita, Tonameca, and Rio Grande rivers, and the bays of Puerto Ángel and Talogunda. It also includes coastal lagoons such as Chacahua-Pastoría and Corralero. The presence of hurricanes (boreal summer) and the influence of strong-winds ('tehuanos') from the Gulf of Tehuantepec during the boreal winter produce high productivity (Pennington et al. 2006). The rainy season (June-October) is linked to the highest temperatures in the area (Alejo-Plata et al. 2008).

This Important Shark and Ray Area is delineated from inshore and surface waters (0 m) to a depth of 100 m based on the local occurrence of Qualifying Species.

ISRA CRITERIA

CRITERION A - VULNERABILITY

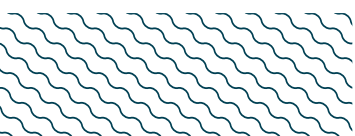
Two Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species™ regularly occur in the area. These are the Critically Endangered Scalloped Hammerhead (Rigby et al. 2019) and the Vulnerable Silky Shark (Rigby et al. 2021).

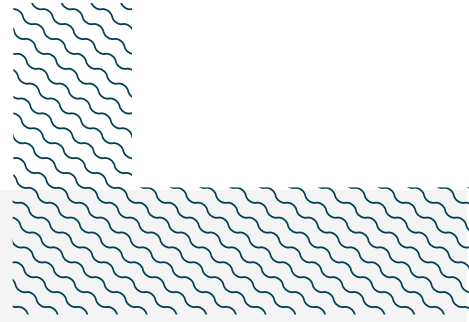
SUB-CRITERION C₁ - REPRODUCTIVE AREAS

Costa Chica of Oaxaca is an important reproductive area for two shark species: Silky Shark and Scalloped Hammerhead.

Based on fisheries landing monitoring from 2001-2006 (n= ~3,000), Silky Sharks use the area as a nursery. Neonates with umbilical scars represented 5.2% of landings for the species, while juveniles (including young-of-the year) represented 72%. Neonates were caught between May-June, and young-of-the-year occur from July-August (Alejo-Plata et al. 2006, 2007; Cruz-Jiménez 2010). Silky Sharks also use the area for parturition, as there is a regular presence of neonates and near-term embryos found in pregnant females (Alejo-Plata et al. 2016). Neonates and young-of-the-year represented 20% of all total landings for the species in Oaxaca (2013-2019; Alatorre-Alba et al. 2021).

Scalloped Hammerhead neonates and young-of-the-year comprised 64% of landings for the species in the area from 2001-2006. These life stages are commonly found between July-September. Their occurrence along with the presence of juveniles (between September-October) is associated with shallow waters (<20 m) and increases in temperature. This occurrence was reported over several years, supporting the presence of a nursery area (Alejo-Plata et al. 2006, 2007). Furthermore, these life stages are still caught by artisanal fisheries (2013-2015; Morales-Pacheco et al. 2016).





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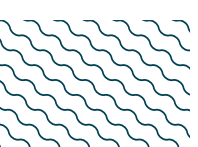
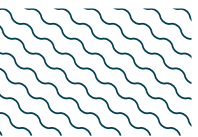
QUALIFYING SPECIES

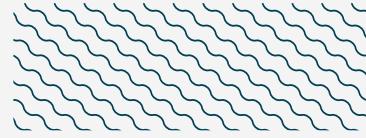
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
SHARKS												
<i>Carcharhinus falciformis</i>	Silky Shark	VU	0-1,043	X		X						
<i>Sphyrna lewini</i>	Scalloped Hammerhead	CR	0-500	X		X						

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Alopias vulpinus</i>	Common Thresher	VU
<i>Carcharhinus leucas</i>	Bull Shark	VU
<i>Carcharhinus limbatus</i>	Blacktip Shark	VU
<i>Galeocerdo cuvier</i>	Tiger Shark	NT
<i>Ginglymostoma unami</i>	Pacific Nurse Shark	EN
<i>Mustelus lunulatus</i>	Sicklefin Smoothhound	LC
<i>Nasolamia velox</i>	Whitenose Shark	EN
<i>Negaprion brevirostris</i>	Lemon Shark	VU
<i>Rhizoprionodon longurio</i>	Pacific Sharpnose Shark	VU
RAYS		
<i>Hypanus longus</i>	Longtail Stingray	VU

IUCN Red List categories: *CR*, Critically Endangered; *EN*, Endangered; *VU*, Vulnerable; *NT*, Near Threatened; *LC*, Least Concern; *DD*, Data Deficient.





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