

Colclough's Shark, *Brachaelurus colcloughi*

Report Card assessment	Undefined Stock		
IUCN Red List Australian Assessment	Vulnerable (Endemic to Australia)	IUCN Red List Global Assessment	Vulnerable
Assessors	Kyne, P., Compagno, L., Last, P. & Stevens, J.		
Australian Assessors	Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan)		
Report Card Remarks	Uncertainty over the size of the adult population means more information is needed to determine its stock status.		

Summary

Colclough's Shark is a rare species with a restricted distribution off southern Queensland and northern New South Wales. It is exposed to trawling and other fishing pressure in much of its range, and it is taken as bycatch in trawl, gillnet, and tunnel net fisheries. Habitat degradation and loss due to urban development in coastal parts of its distribution has likely negatively affected its inshore habitat. Red List assessments are based on the



population having a small adult population size, but recent catches in fisheries in deeper parts of its range (Rigby et al. 2016) suggest the species may be more abundant than previously thought. As such, although it is considered Vulnerable (IUCN) (Kyne et al. 2021), until better understanding of the population size is available it is assessed as Undefined Stock (SAFS).

Distribution

Colclough's Shark is endemic to the east coast of Australia and is found in several areas from Bryon Bay (New South Wales; NSW) to the Hardline Reefs (Queensland). Over half the known records are from Moreton Bay (southern Queensland) (Kyne et al. 2011). Reports of this species from the tip of Cape York Peninsula and south of Princess Charlotte Bay (north Queensland) (Last and Stevens 2009) are unsupported (Kyne et al. 2011).

Stock structure and status

The Colclough's Shark is a rare species. Given its restricted distribution, it is assumed that all individuals belong to one continuous population. Red List assessments suggest that the adult population size is less than 10,000 individuals, but recent records from the East Deepwater King

Prawn Fishery in Queensland (Rigby et al. 2016) suggest the species may be more common than previously thought.

Fisheries

The Queensland East Coast Trawl Fishery (ECOTF) operates over much of the species Queensland range (Kyne et al. 2011). It has also been reported from Swain Reefs in the deepwater eastern king prawn sector of the ECOTF (Rigby et al. 2016). This species is also caught in the Queensland East Coast Inshore Fin Fish Fishery as bycatch by gillnet and tunnel net fisheries (Kyne et al. 2011). Moreton Bay and other parts of the southern Queensland and northern NSW coast are popular recreational fishing areas, however its catch by recreational fisheries is likely limited. Large-scale developments in Moreton Bay have affected the Colclough's Shark's inshore shallow water habitats. These include reclamation projects for the Brisbane Airport and the Port of Brisbane. Fully protected marine reserves, such as Moreton Bay Marine Park (15% of Moreton Bay) and the Great Barrier Reef Marine Park likely provide refuge for this species.

Habitat and biology

The Colclough's Shark occurs from shallow inshore water less than 4 m depth to a maximum of 217 m depth. It is mostly known from less than 100 m depth. It is a nocturnal species which shelters on rocky reefs during the day, and forages around reefs and surrounding substrates (including seagrass beds) at night (Compagno 2001, Kyne et al. 2011). The species reaches a maximum size of at least 88 cm total length (TL) (Rigby et al. 2016) with males mature from 61 cm TL and females from 55 cm TL (Kyne et al. 2011).

Longevity and maximum size	Longevity: unknown Max size: at least 88 cm TL
Age and/or size at maturity (50%)	Males: >61 cm TL Females: >55 cm TL

CAAB Code: 37 013013

Link to IUCN Page: <https://www.iucnredlist.org/species/39335/68610594>

Link to page at Shark References: <http://shark-references.com/species/view/Brachaelurus-colcloughi>

References

- Compagno, L.J.V. 2001. *Sharks of the world. An annotated and illustrated catalogue of shark species known to date. Vol. 2. Bullhead, mackerel and carpet sharks (Heterodontiformes, Lamniformes and Orectolobiformes)*. FAO species catalogue for fisheries purposes. No. 1. Vol. 2. FAO, Rome.
- Kyne, P.M., Compagno, L.J.V., Stead, J., Jackson, M.V. and Bennett, M.B. 2011. Distribution, habitat and biology of a rare and threatened eastern Australian endemic shark: Colclough's shark, *Brachaelurus colcloughi* Ogilby, 1908. *Marine and Freshwater Research* 62: 540–547.
- Kyne, P.M., Heupel, M.R., White, W.T. and Simpfendorfer, C.A. 2021. *The Action Plan for Australian Sharks and Rays 2021*. National Environmental Science Program, Marine Biodiversity Hub, Hobart
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- Rigby C.L., White W.T., Simpfendorfer C.A. Deepwater Chondrichthyan Bycatch of the Eastern King Prawn Fishery in the Southern Great Barrier Reef, Australia. *PLoS ONE*. 2016:11(5), e0156036.