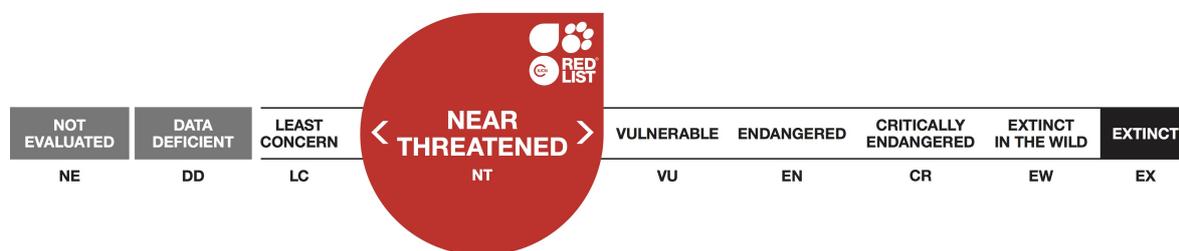


Brevitrygon walga, Scaly Whipray

Assessment by: Simpfendorfer, C., Moore, A., Elhassan, I., Owfi, F. & Akhilesh, K.V.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Chondrichthyes	Myliobatiformes	Dasyatidae

Taxon Name: *Brevitrygon walga* (Müller & Henle, 1841)

Synonym(s):

- *Himantura walga* (Müller & Henle, 1841)
- *Trygon walga* Müller & Henle, 1841

Common Name(s):

- English: Scaly Whipray, Dwarf Whipray

Taxonomic Source(s):

Last, P., White, W., de Carvalho, M., Séret, B., Stehmann, M. and Naylor, G. 2016. *Rays of the World*. CSIRO Publishing, Clayton.

Taxonomic Notes:

Last *et al.* (2016a) placed *Himantura heterurus*, *H. imbricata*, *H. javaensis*, and *H. walga* within the new genus *Brevitrygon*. Previously confused with other dwarf whiprays (*Brevitrygon* species) (Last *et al.* 2016b). There remains considerable taxonomic confusion over '*B. walga*' with different forms across its range. These may turn out to be represent a series of different species.

Assessment Information

Red List Category & Criteria: Near Threatened [ver 3.1](#)

Year Published: 2017

Date Assessed: February 9, 2017

Justification:

The Scaly Whipray (*Brevitrygon walga*) is a very small (to 32 cm disc width) whipray species whose true range is poorly-known due to taxonomic issues. There are various forms across its range (Red Sea to India), but until taxonomy is resolved, the forms in the Arabian Seas region are treated as a single species for the current assessment. This species appears to be very common in waters less than 40 m deep, including in intertidal areas. Given its size it is likely to have a productive life history, but this needs to be confirmed with species-specific research. It is regularly caught in shallow water trawls and is normally discarded at sea in the western part of its range, but landed in considerable numbers in the eastern part (i.e., India). Overall, fishing pressure is increasing across its habitat, and declines in batoids have been documented in India. At one landing site, catches have been stable over a 15 year period after an initial increase. However, over that same time period, trawl effort doubled. Overall, declines of < 30% are suspected over the last three generations (~33 years), and with ongoing fishing pressure, further population declines are suspected over the next three generations (2017-2050); the species is therefore assessed as Near Threatened (nearly meeting VU A2d+3d). Uncertainty arising from unresolved taxonomy, the unknown fate of discards, and uncertainty about its life history, all support a

precautionary approach. Indeed, it is possible that in the near future the intense trawling pressure in parts of its range could lead to further declines and make it eligible for listing as Vulnerable if not higher.

Geographic Range

Range Description:

The Scaly Whipray is endemic to the Arabian Sea region, although its true distribution is unclear due to significant taxonomic issues, and research is urgently required to resolve this. Forms apparently consistent with the illustration in Last *et al.* (2016) appear to be present in eastern Iran waters of the Sea of Oman (F. Owfi unpub. data). However, specimens from the northern Arabian Gulf/Persian Gulf (hereafter referred to as the 'Gulf') (Kuwait and Iran; previously reported as *Himantura imbricata*) appear notably different (A.B.M. Moore unpub. data) and more consistent with the Bengal Whipray (*Brevitrygon imbricata*), a species that Last *et al.* (2016) report only from the Bay of Bengal region. Additional variation is evident in India. Until taxonomy is resolved the forms in the Arabian Seas region are treated as a single species for the current assessment.

Country Occurrence:

Native: Bahrain; Djibouti; Egypt; Eritrea; India (Gujarat); Iran, Islamic Republic of; Kuwait; Oman; Pakistan; Qatar; Saudi Arabia; Somalia; Sudan; United Arab Emirates; Yemen (South Yemen)

FAO Marine Fishing Areas:

Native: Indian Ocean - western

Distribution Map

Brevitrygon walga

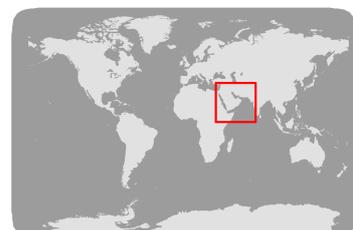


Range

Extant (resident)

Compiled by:

IUCN SSC Shark Specialist Group



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

Gillnet and trawl surveys in northern Kuwait (near the Iraq border) in 2004-05 recorded the species (as *Himantura imbricata*) as the second most abundant elasmobranch (Bishop *et al.* 2016). It has been recorded (as *H. imbricata*) in small numbers in fish markets in Kuwait and Qatar (Moore *et al.* 2012). This species is very common bycatch in shallow trawls in Iran (7-8% of rays caught [by weight]), but it is normally discarded (T. Valinassab pers. comm. 05/02/2016). It appears to be more common in the northern Gulf than in the southern, although this could be due to its susceptibility to trawls. During recent research surveys using trawls in UAE waters, it constituted a significant proportion of ray catches (R.W. Jabado pers. comm. 31/03/2017). It is rarely recorded in Oman (Henderson *et al.* 2007). The small size of this species means that it is often discarded at sea, thus making the collection of data from landing sites difficult. In the Red Sea, it appears uncommon due to the limited amounts of suitable habitats (Bonfil 2003, I. Elhassan unpub. data).

The population has declined off India and Pakistan due to overall declines in batoids from intense and increasing fishing. For example, the annual average catch of rays landed by trawlers at New Ferry Wharf, Mumbai, between 1990-2004 was 502 t. During this period trawler hours doubled, and consequently, the catch rate declined by 60% from 0.65 kg/hr in 1990 to 0.24 kg/hr in 2004 (Raje and Zacharia 2009). The same paper showed that landings of this species (as *Amphotistius imbricatus*) were stable, indicating that it is an abundant species in trawl catches, but still declining due to trawl effort doubling during this period. In Pakistan, it is regularly captured, and there is evidence that the abundance has declined since 1999 (M. Khan pers. comm. 06/02/2017). Overall, declines of <30% are suspected over the last three generations (~33 years), and with ongoing fishing pressure, further population declines are suspected over the next three generations (2017-2050)

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This species is very common in shallow and intertidal waters mostly to 30 m, but occasionally 40 m (Akhilesh K.V. pers. comm. 05/02/2017), over soft substrates. It is a very small species, only growing to 32 cm disc width (DW). Data from the *H. imbricata* form show that males mature about 18 cm DW and females by at least 23 cm DW (Moore *et al.* 2012). Born at 7-10 cm DW (Last *et al.* 2016). No data on litter size is available, but given the small size it is likely to be low. Similarly, no data on frequency of breeding is available. No ageing data are available. Generation length is estimated from the similar-sized Speckled Maskray (*Neotrygon picta*) from Australia that matures at 3-4 years and reaches a maximum age of 18 years, yielding a generation length of ~11 years (Jacobsen and Bennett 2010).

Systems: Marine

Use and Trade

This species is generally considered as being of low value and unmarketable at local markets and is therefore usually discarded at sea in the western part of its range. In India it is landed and sold locally. If landed, the meat is sold either fresh or dried for human consumption. In India, the skin is often processed and used for leather. Ray meat is increasing in demand and therefore prices in India are also increasing.

Threats (see Appendix for additional information)

The Scaly Whipray is a small species of whipray that is regularly caught as bycatch in trawls within its range and the main threat to this species is shallow water trawl fisheries that can catch large numbers. The high level of increasing exploitation on its habitat is of concern. For example, there were about 6,600 trawlers operating in the Indian state of Gujarat in the early 2000s (Zynudheen *et al.* 2004). This number increased to 11,582 trawlers in 2010 (CMFRI 2010). In Pakistan waters, about 2,000 trawlers operate in shelf waters, targeting shrimp in shallow waters and fish in outer shelf waters (M. Khan pers. comm. 06/02/2017). In Iran, there is increasing fishing effort with the number of fishermen going from 70,729 in 1993 to 109,601 in 2002 (Valinassab *et al.* 2006). The Scaly Whipray is normally discarded at sea in the western part of the range, but retained and marketed in the eastern part. Post release survival is unknown and needs to be investigated.

Its occurrence in very shallow water also makes it susceptible to coastal development and habitat degradation. Marine habitats in the Gulf are experiencing high levels of disturbance and quickly deteriorating due to major impacts from development activities (including dredging and reclamation), desalination plants, industrial activities, habitat destruction through the removal of shallow productive areas and major shipping lanes (Sheppard *et al.* 2010) which is likely to impact this species.

Conservation Actions (see Appendix for additional information)

There are no species-specific conservation measures in place. Kuwait is the only country across the range of this species with regulations specifically banning catches of rays. The UAE, Qatar and Oman have banned trawling in their waters (since 1980, 1993 and 2011, respectively) while Iran, Kuwait, Saudi Arabia and India have seasonal trawl bans that might benefit the species. However, incidental catches occur in other fisheries (e.g., gillnetting). Research is required on this species' biology, abundance and distribution to further assess status and any future conservation needs.

Credits

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Reviewer(s): Jabado, R., Pollom, R. & Kyne, P.M.

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Citation

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External Resources

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Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
9. Marine Neritic -> 9.4. Marine Neritic - Subtidal Sandy	Resident	Suitable	Yes
9. Marine Neritic -> 9.5. Marine Neritic - Subtidal Sandy-Mud	Resident	Suitable	Yes
9. Marine Neritic -> 9.6. Marine Neritic - Subtidal Muddy	Resident	Suitable	Yes

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	Unknown	Causing/could cause fluctuations	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
3. Energy production & mining -> 3.1. Oil & gas drilling	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.2. Intentional use: (large scale) [harvest]	Ongoing	Minority (50%)	Causing/could cause fluctuations	Low impact: 5
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.3. Unintentional effects: (subsistence/small scale) [harvest]	Ongoing	Majority (50-90%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.4. Unintentional effects: (large scale) [harvest]	Ongoing	Majority (50-90%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
9. Pollution -> 9.2. Industrial & military effluents -> 9.2.1. Oil spills	Ongoing	Unknown	Causing/could cause fluctuations	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality 2. Species Stresses -> 2.2. Species disturbance		

Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions in Place
In-Place Research, Monitoring and Planning
Action Recovery plan: No
Systematic monitoring scheme: No
In-Place Land/Water Protection and Management
Conservation sites identified: No
Occur in at least one PA: Yes
Area based regional management plan: No
Invasive species control or prevention: Not Applicable
In-Place Species Management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-Place Education
Subject to recent education and awareness programmes: No
Included in international legislation: No
Subject to any international management/trade controls: No

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Actions Needed
1. Land/water protection -> 1.2. Resource & habitat protection
3. Species management -> 3.1. Species management -> 3.1.1. Harvest management
3. Species management -> 3.1. Species management -> 3.1.2. Trade management
4. Education & awareness -> 4.2. Training
4. Education & awareness -> 4.3. Awareness & communications
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level
5. Law & policy -> 5.2. Policies and regulations
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.2. National level

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
2. Conservation Planning -> 2.3. Harvest & Trade Management Plan
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.2. Harvest level trends

Additional Data Fields

Distribution
Continuing decline in area of occupancy (AOO): Unknown
Extreme fluctuations in area of occupancy (AOO): Unknown
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): Unknown
Continuing decline in number of locations: Unknown
Extreme fluctuations in the number of locations: Unknown
Lower depth limit (m): 40
Upper depth limit (m): 0
Population
Continuing decline of mature individuals: Yes
Extreme fluctuations: Unknown
Population severely fragmented: Unknown
Continuing decline in subpopulations: Unknown
Extreme fluctuations in subpopulations: Unknown
All individuals in one subpopulation: Unknown
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Unknown
Generation Length (years): 11
Movement patterns: Unknown

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