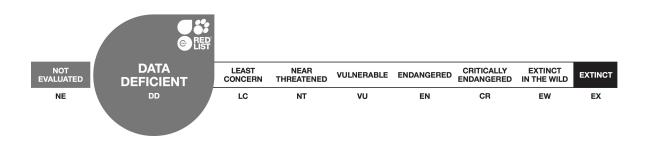


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Halaelurus quagga, Quagga Catshark

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Chondrichthyes	Carcharhiniformes	Scyliorhinidae

Taxon Name: Halaelurus quagga (Alcock, 1899)

Synonym(s):

• Scyllium quagga Alcock, 1899

Common Name(s):

• English: Quagga Catshark

Taxonomic Source(s):

Eschmeyer, W.N., Fricke, R. and Van der Laan, R. (eds). 2017. Catalog of Fishes: genera, species,
references. Updated 28 April 2017. Available at:
http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp. (Accessed: 03
May 2017).

Assessment Information

Red List Category & Criteria:	Data Deficient <u>ver 3.1</u>		
Year Published:	2017		
Date Assessed:	February 9, 2017		

Justification:

The Quagga Catshark (*Halaelurus quagga*) is a poorly-known catshark recorded from very few specimens. It has a fragmented known distribution occurring off southwestern India, and around the Socotra Archipelago (Yemen).

This small shark (reaching ~37 cm total length) occurs at depths of 54-300 m, but appears to be a mostly deep-water species. The development of intense deep-sea bottom trawl fishing off southwestern India where the species is most likely to be taken as bycatch is a concern. Its small size means that it would be discarded at sea, but survivorship would be low. There are currently no deep-sea fishing activities around the Socotra Archipelago. Declines off southwestern India are suspected, but the extent to which fishing is affecting the species there is not known. Despite some concern, the species is assessed as Data Deficient, with a urgent need to assess bycatch rates in the Indian deep-sea shrimp trawl fishery.

Previously Published Red List Assessments

2009 – Data Deficient (DD) http://dx.doi.org/10.2305/IUCN.UK.2009-2.RLTS.T161625A5467302.en

Geographic Range

Range Description:

The Quagga Catshark is endemic to the Arabian Seas region, with a fragmented known distribution, occurring off southwestern India, around the Socotra Archipelago, Yemen, and possibly from the Gulf of Aden, but these records need to be confirmed as they may be of a different species.

Country Occurrence:

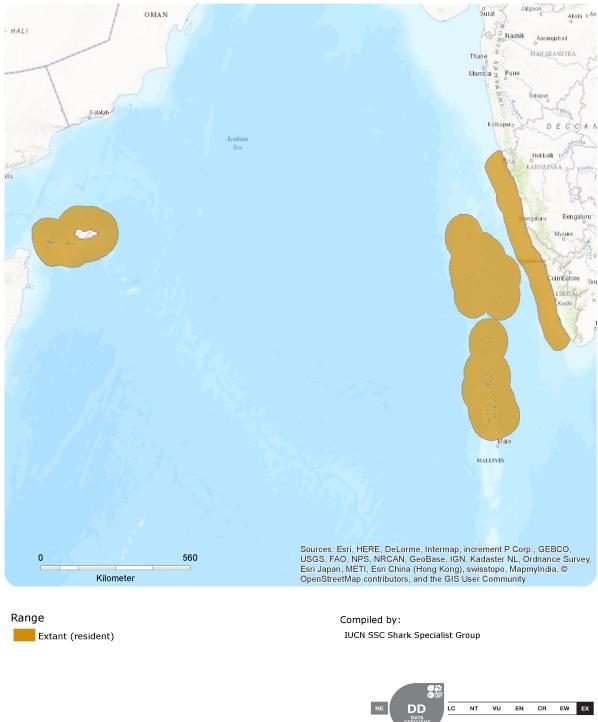
Native: India (Kerala)

FAO Marine Fishing Areas:

Native: Indian Ocean - western

Distribution Map

Halaelurus quagga







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Population

To date there have been no dedicated surveys or population estimates for this species. Further research is needed to determine population size and trends in abundance. The population is suspected to have declined off southwestern India due to the development of deep-sea fishing there (Akhilesh *et al.* 2011a), but no specific data are available.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

The Quagga Catshark has a known depth range of 54 to 300 m (Weigmann 2016), but it appears to be a mostly deep-sea species. The biology of this species is mostly unknown, but size at birth is ~8 cm total length (TL), males mature at 28-35 cm TL and it reaches a maximum size of about 37 cm TL (Akhilesh *et al.* 2011b). An adult female measured 36.8 cm TL and had eight egg cases, four in each uterus.

Systems: Marine

Use and Trade

No utilization or commercial trade of this species is currently known to exist. It is likely discarded at sea given its small size and low economic value.

Threats (see Appendix for additional information)

The development of intense deep-sea bottom trawl fishing off southwestern India where the species is most likely to be taken as bycatch is a concern (Akhilesh *et al.* 2011a). This deep-sea shrimp fishery started in 1999 and developed rapidly, with trawler numbers peaking in 2000-2001 before dropping significantly, although there are still some 300-400 boats operating in the fishery (Fernandez *et al.* 2015). The discard rate is high for non-commercial species in this fishery. This shark's small size means that it would be discarded at sea, and survivorship would be low. There are currently no deep-sea fishing activities around the Socotra islands.

Conservation Actions (see Appendix for additional information)

Currently there are no species-specific conservation measures in place. Research is required on lifehistory, the impact of threats, and potential and actual levels of bycatch. Surveys are needed to further define this species' distribution and abundance to further assess status and any future conservation needs.

Credits

Assessor(s):	Ebert, D.A., Tesfamichael, D., Valinassab, T. & Akhilesh, K.V.
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Akhilesh, K.V., Bineesh, K.K., Shanis, C.P.R., Human, B.A. and Ganga, U. 2011b. Rediscovery and description of the quagga shark, *Halaelurus quagga* (Alcock, 1899) (Chondrichthyes: Scyliorhinidae) from the southwest coast of India. *Zootaxa* 2781: 40-48.

Akhilesh, K.V., Ganga, U., Pillai, N.G.K., Vivekanandan, E., Bineesh, K.K., Shanis, C.P.R. and Hashim, M. 2011. Deep-sea fishing for chondrichthyan resources and sustainability concerns— a case study from southwest coast of India. *Indian Journal of Geo-Marine Sciences* 40(3): 347-355.

Fernandez, T.J., Vipin, P.M., Pradeep, K., Ravi, R., Remesan, M.P. and Boopendranath, M.R. 2015. Myctophid discards from deep sea shrimp trawlers operating off south-west coast of Kerala. *Indian Journal of Geo-Marine Science* 44(7): 1053-1058.

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Citation

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External Resources

For Images and External Links to Additional Information, please see the Red List website.

Appendix

Habitats

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

Habitat	Season	Suitability	Major Importance?
11. Marine Deep Benthic -> 11.1. Marine Deep Benthic - Continental Slope/Bathyl Zone (200-4,000m) -> 11.1.1. Hard Substrate	Resident	Suitable	Yes
11. Marine Deep Benthic -> 11.1. Marine Deep Benthic - Continental Slope/Bathyl Zone (200-4,000m) -> 11.1.2. Soft Substrate	Resident	Suitable	Yes

Threats

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

Threat	Timing	Scope	Severity	Impact Score
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.3. Unintentional effects: (subsistence/small scale) [harvest]	Ongoing	Unknown	Causing/could cause fluctuations	Unknown
	Stresses:	2. Species Stress	es -> 2.1. Species mor	tality
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.4. Unintentional effects: (large scale) [harvest]	Ongoing	Unknown	Causing/could cause fluctuations	Unknown
	Stresses:	2. Species Stress	es -> 2.1. Species mor	tality

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: Unknown
Area based regional management plan: No
Invasive species control or prevention: Not Applicable
In-Place Species Management
Harvest management plan: No

Conservation Actions in Place
Successfully reintroduced or introduced beningly: 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
3. Species management -> 3.1. Species management -> 3.1.1. Harvest management
4. Education & awareness -> 4.2. Training
4. Education & awareness -> 4.3. Awareness & communications
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 -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
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

Distribution

Extreme fluctuations in the number of locations: Unknown

Lower depth limit (m): 300

Upper depth limit (m): 54

Population

Continuing decline of mature individuals: Unknown

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

Movement patterns: Unknown

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