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# Halaelurus boesemani, Speckled Catshark

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### **Taxonomy**

Kingdom	Phylum	Class	Order	Family	
Animalia	Chordata	Chondrichthyes	Carcharhiniformes	Scyliorhinidae	

Taxon Name: Halaelurus boesemani Springer & D'Aubrey, 1972

### Common Name(s):

• English: Speckled 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).

#### **Taxonomic Notes:**

This species was confused with *H. buergeri* until Springer and D'Aubrey (1972) found it to be a different species (Compagno 1984). Previously considered to occur in the Philippines, Viet Nam and northwestern Australia but two new species recently described from Indonesia/Philippines and northwestern Australia have resulted in a more restricted range for this species (White *et al.* 2007). The Viet Nam populations need to be examined further as it is unsure which *Halaelurus* species they are (W. White pers. obs).

### **Assessment Information**

Red List Category & Criteria: Vulnerable A2d ver 3.1

Year Published: 2017

**Date Assessed:** February 9, 2017

#### Justification:

The Speckled Catshark (*Halaelurus boesemani*) is a relatively small (to 48 cm total length), data-poor catshark. It is known from a limited number of specimens collected from four locations along an ~900 km stretch of Somali coastline. It occurs on continental and insular shelves at depths of 29-91 m. Its entire distribution has been subject to at least four decades of unregulated commercial benthic trawling; shelf-occurring catsharks are very susceptible to capture in this fishing gear. The new Somali Fisheries Law bans benthic trawling, but it is suspected that past declines have already occurred given the long history of unregulated fishing across its entire range. Furthermore, enforcement of this new regulation will be a challenge. While specific data are lacking, a population size reduction of 30-50% is suspected over the past three generations (~45 years) based on actual levels of exploitation (bycatch) and the species is assessed as Vulnerable A2d. It is of concern that there have been no records since 1991, although it is acknowledged that research and monitoring have been limited in Somalia. Further investigation of this species is required to accurately define its range, biology, extent of catches in local fisheries and levels of declines. This assessment should be revisited as soon as this is available.

## **Geographic Range**

### **Range Description:**

The Speckled Catshark is endemic to the Arabian Seas region where it is known only from four locations along a stretch of ~900 km of Somali coast. Although often reported from the Gulf of Aden, examination of records shows only a single specimen collected in 1933 which was specified as H. guagga by Norman (1939) from northeast Somalia, only marginally inside the Gulf of Aden (Norman 1939, Springer and D'Aubrey 1972). While records from outside of the Arabian Seas region represent different species (for example recently described species in White  $et\ al.$  (2007)), there is an unconfirmed report from Kenya (Compagno 1988). If confirmed, this would increase the known range, although it would still be known from  $\leq 5$  locations.

### **Country Occurrence:**

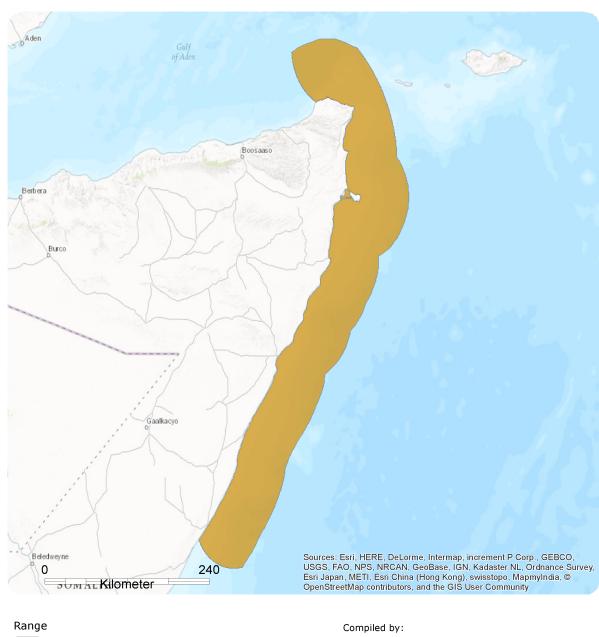
Native: Somalia

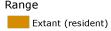
### **FAO Marine Fishing Areas:**

Native: Indian Ocean - western

# **Distribution Map**

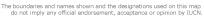
Halaelurus boesemani





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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. Significant declines in commercially important demersal fish species have been reported from where it occurs and areas surrounding it (Gulf of Aden and Red Sea), with many now considered overexploited (De Young 2006). Similarly, reports indicate that shark resources in the Red Sea, particularly off Sudan, Djibouti, Yemen (including the Socotra Archipelago) and Somalia were already showing signs of depletion over 15 years ago (PERSGA 2002, Glaser *et al.* 2015). It is therefore suspected that the Speckled Catshark has declined by at least 30-50% over the past three generation lengths (~45 years) in the Arabian Seas region.

**Current Population Trend:** Decreasing

### Habitat and Ecology (see Appendix for additional information)

The Speckled Catshark occurs on continental and insular shelves at depths of 29-91 m, and reaches 48 cm total length. Nothing is known about its biology. Generation length is inferred from the similar-sized Blacktip Sawtail Catshark (*Galeus sauteri*) as 15 years based on ageing data from Liu *et al.* (2011).

Systems: Marine

### **Use and Trade**

No utilization or commercial trade of this species is currently known to exist.

## Threats (see Appendix for additional information)

While no specific information is available on catches of the Speckled Catshark, the high level of exploitation across its small range is of concern. Somali waters have been subjected to intense unregulated commercial benthic trawling for at least four decades, with a long history of foreign trawl fisheries operating across the entire range of the Speckled Catshark (Glaser *et al.* 2015). While the new Somali Fisheries Law now bans benthic trawling, decades of unregulated trawling may have already caused population-level impacts on this species, and implementation of regulations and enforcement remain a challenge (Glaser *et al.* 2015). Given the small size of the species, it is unlikely to be taken in longline fisheries, but may interact with small-meshed gillnet fisheries which are used by artisanal fisheries in the region and demersal trawls from illegal fishing by foreign vessels.

## **Conservation Actions** (see Appendix for additional information)

Currently there are no species-specific conservation measures in place. The new Somali Fisheries Law bans benthic trawling (Glaser *et al.* 2015). Research is required on life history, and its current occurrence across previous trawl grounds. Surveys are needed to further define this species' distribution and abundance to further assess status and conservation needs.

### **Credits**

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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?
9. Marine Neritic -> 9.5. Marine Neritic - Subtidal Sandy-Mud		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 -> 5.4.1. Intentional use: (subsistence/small scale) [harvest]	Ongoing	Unknown	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
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:	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	Minority (50%)	Causing/could cause fluctuations	Low impact: 5
	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: 1. Ecosystem stresses -> 1.		esses -> 1.2. Ecosyster	n degradation
		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	

### **Conservation Actions in Place**

Invasive species control or prevention: Not Applicable

In-Place Species Management

Harvest management plan: No

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
- 1. Research -> 1.5. Threats
- 3. Monitoring -> 3.1. Population trends
- 3. Monitoring -> 3.2. Harvest level trends
- 3. Monitoring -> 3.4. Habitat 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

Number of Locations: 4

Continuing decline in number of locations: Unknown

Extreme fluctuations in the number of locations: Unknown

Lower depth limit (m): 91

Upper depth limit (m): 29

**Population** 

Population severely fragmented: No

**Habitats and Ecology** 

Movement patterns: Unknown

## The IUCN Red List Partnership



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<u>Programme</u>, the <u>IUCN Species Survival Commission</u> (SSC) and <u>The IUCN Red List Partnership</u>.

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