ISSN (online): 3006-5542; ISSN (print): 3006-5534

Fisheries Studies

Journal homepage: www.journal.inrrd.com/fs

Threatened Species Series

Threatened Fishes of the World: *Aetobatus ocellatus* (Kuhl, 1823) – Recommendations for Conservation

Sakariye Ahmed Hashi[1], Md. Golam Sarwar[1], Tasnim Akter Akhi[1], Rakiba Khatun[1], Md. Abidul Hasan[1], Most. Nilufa Yasmin[1], Abhishek Roy[1], Basim Ahmed[2*]

[1]Department of Fisheries, University of Rajshahi, Rajshahi 6205, Bangladesh
[2]Department of Biology, College of Science, University of Zakho, Zakho-42002, Duhok, Kurdistan Region, Iraq

ARTICLE INFO

Article history
Received 12 February 2025
Revised 19 February 2025
Accepted 13 March 2025
Available online 11 April 2025

Keywords
Aetobatus ocellatus
Ocellated eagle ray
Vulnerable species
Somalia Coast
Conservation

ABSTRACT

The ocellated eagle ray *Aetobatus ocellatus* is a large elasmobranch that is widely spread in the tropical Indo-West Pacific, and Somalia is the westward limit of its distribution. It is a benthic mesopredator that inhabits shallow waters in coastal ecosystems (i.e., coral reefs, seagrass meadows, lagoons and mangrove-proximate bays) in which it controls invertebrate populations, as well as providing sediment turnover, nutrient cycling and ecosystem engineering. It has K-selected characteristics in life-history such as low fecundity (26 pups per litter), late sexual maturity (15-m disc width), and a short lifespan (15 20 years). A. ocellatus is sometimes taken in artisanal fisheries along the Somali coast, and populations are susceptible to overfishing, habitat degradation, and environmental changes caused by climate change. It is also Vulnerable in the IUCN Red List, which indicates that the management interventions are urgently required. It is suggested that habitat protection, seasonal closures, bycatch mitigation, community-based monitoring, and genetic research to determine population connectivity should be recommended. Preservation of A. ocellatus is consistent with Sustainable Development Goals, especially SDG 14 (Life Below Water), because it focuses on sustainable fisheries, protection of marine biodiversity, and coastal livelihoods. The ecological, genetic and socio-economic conservation measures should be long-term in conservation to ensure the ecological processes and survival of this endangered ray in Somali waters.

Introduction

One such large myliobatid species is *Aetobatus ocellatus* (Kuhl, 1823), or ocellated eagle ray, which is found in the tropical Indo-West Pacific region extensively (White et al. 2010). Traditionally, it has been regarded as a conspecific with the spotted eagle ray *A. narinari*, but taxonomic revisions by using detailed morphological features, including disc spotting patterns, dentition, and meristic counts, mitochondrial and nuclear DNA analyses proved it was an independent species (White et al., 2010; Naylor et al., 2012). A. ocellatus usually reside in coastal reefs and submerged plains, muddy lagoons, and seagrass habitats, and they dwell in the depths of 0-50 m where *A. ocellatus* is a significant ecological agent as a benthic mesopredator (Compagno, 1999; Last et al. 2016). Its main food includes molluscs, crustaceans, echinoderms and small demersal fishes, which it crushes by the hard shells using teeth resembling pavements (McEachran & Carvalho, 2002).

*Corresponding author
E-mail address: basim.ahmed@uoz.edu.krd (Basim Ahmed)

This kind of feeding behavior adds to the restructuring of the benthic community affecting the sediment turnover and the dynamics of the invertebrate population (Kiszka et al. 2014). Reports show that the species is sometimes taken by artisanal gillnet and longline fisheries along the coastline of the Gulf of Aden and along the coastline of the Indian Ocean, but regular population evaluation studies are still lacking because of the lack of monitoring initiatives in Somalia (IUCN Somalia 2022; Moore 2017). ocellatus has gained ecological and socioeconomic importance to the Somali waters as coastal populations depend on elasmobranchs as food and sources of income (Dulvy et al. 2014). But it has a poor rate of population increase, late sexual development and low fertility, which predisposes the species to excessive exploitation and loss of habitats (Dulvy et al. 2014; Stevens et al. 2000). The species is a Vulnerable species on the IUCN Red List, thus the urgency of conservation strategies, including habitat protection and bycatch prevention and community-based management programs, is necessary to guarantee its conservation in the area (Last et al., 2010; Sherman et al., 2019).

Taxonomy

The taxonomy of *A. ocellatus* is in line with modern Myliobatiformes as a classification of morphological characteristics and molecular phylogenetics (White et al. 2010). Previous mix-ups with the spotted eagle ray (*Aetobatus narinari*) over decades long had been sorted out over several decades by tertiary genetic analysis of species barriers throughout the Indo-West Pacific region (White et al. 2010; Naylor et al. 2012).

Kingdom: Animalia
Phylum: Chordata
Class: Chondrichthyes
Order: Myliobatiformes
Family: Myliobatidae
Genus: Aetobatus
Species: *A. ocellatus*

Common names

A. ocellatus is highly ubiquitous in the Indo west Pacific region and therefore, it has a myriad of common names in various countries and languages (Table 1). Such names generally indicate the spotted pattern or eagle-shaped wings or long whip-shaped tail of the species. Recording of common names is also necessary in fisheries management, local awareness and species recognition in the coastal communities (White et al. 2010; Last et al. 2016).

Identification

It is easy to recognize that *A. ocellatus* is a species that is easily identified through morphological and colour patterns (Fig. 1). Its dorsal pattern and its visual appearance are striking in terms of visuals as it is a diamond-shaped disc with spots unlike other species of rays in the area. Diamond shaped with sharp pointed ends; the width of the disc up to 3 m in adults, which is among the largest species of the eagle ray (Last et al. 2016). Dark brown to black surface with clear white or yellowish ocellate spots, and these help to identify species at the level of species (Last et al. 2016). The length of the tail is very long and whip-shaped, and it has 1-3 spines which are venous in nature, and located towards the base (Compagno 1999). Pale white, which helps in countershading (McEachran and Carvalho 2002). Hard-shelled prey (*e.g.*, mollusks and crustaceans) is crushed effectively by flattened pavement-like dentition (McEachran and Carvalho 2002).

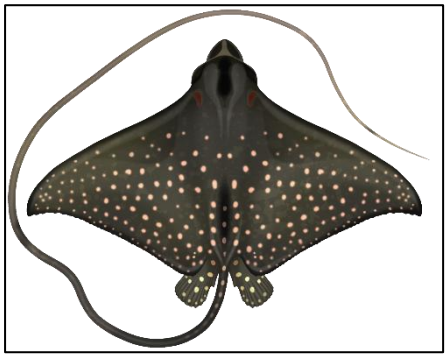

Fig. 1. Whites potted Eagle Ray *Aetobatus ocellatus* (Source: https://marinewise.com.au/shark-and-ray-species/whitespotted-eagle-ray/)

Distribution

The species A. ocellatus is distributed across the tropical Indo-West Pacific and Somalia is located close to the western boundary of its habitat (Last et al. 2016; White et al. 2010) (Fig. 2). Its allocation along the Somali coast is linked to the presence of shallow waters of the continental shelf subject to the Somali Current system that promotes productivity and benthic prey availability (IUCN Somalia 2022; Wanyonyi et al. 2019). This species is very important in the coastal ecosystems including coral reefs, mangrove-proximate bays, lagoons, and seagrass meadows, which are the habitats where juveniles are highly reliant on sheltered, productive environments (Kiszka et al. 2007; Samoilys

et al. 2018). The most commonly reported ones include Kismayo, Eyl, Warsheikh, Berbera, and Bosaso (IUCN Somalia 2022; Moore 2017). Sporadic seizures by artisanal fisheries with gillnets, handlines or seine nets are evidence of patchy though consistent occurrence. Local richness is closely linked to benthic habitats that have high levels of prey, particularly seagrass beds and coral reef margins (IUCN Somalia 2022). Even though it is believed that its prevalence is low to moderately high, the absence of systematic survey restricts the accuracy of population estimates. This trend is indicative of comparable rates of abundance that have been detected in Kenya, Tanzania, Oman and Sri Lanka (Last et al., 2010; Henderson and Reeve 2011).

Table 1: Common Names in different languages of *Aetobatus ocellatus*

Language / Region	Common Name	Meaning / Notes	Citation / Source
English	Ocellated eagle ray	Refers to eye-like (ocellated) spots	Last et al. (2016); White et al. (2010)
English	Spotted eagle ray (historical use)	Former name before split with *A. narinari*	Naylor et al. (2012); Compagno (1999)
Somali	Ba'aal-biyood dhibco leh	"Spotted sea-wing" (fisherfolk term)	IUCN Somalia (2022); Wanyonyi et al. (2019)
Swahili (East Africa)	Pweza tai / Taa madoadoa	"Eagle ray / spotted ray"	Kiszka et al. (2007); Samoilys et al. (2018)
Arabic	الراي النسر المرقط	"Spotted eagle ray"	FAO Regional Fisheries Report (2020)
Hindi	Chitkabra shapat machli	"Spotted winged fish"	Indian Ocean Fisheries Survey (Romanov 2001)
Tamil	Pattai siragu meen	"Spotted winged fish"	Pillai & Manjusha (2015)
Indonesian	Ikan pari tutul	"Spotted ray"	Indonesia Elasmobranch Field Guide (Moore 2017)
Malay	Pari bintik	"Spotted ray"	Malaysian Fisheries Dept. (2018)

Fig. 2. map showing the geographical distribution of *Aetobatus ocellatus*

Habitat and Ecology

A. ocellatus is an important member of the coastal ecosystem of the Western Indian Ocean because of its habitat preference and ecological role (Last et al. 2016; White et al. 2010). Depth range is 0-50 m, but seldom deeper, agreeing with its suitability to shallow coastal ecosystems (IUCN Somalia 2022). Substrates are uses sandy plains, muddy lagoons, coral reef slope, and seagrass meadows, which provide a good quantity of benthic prey (Kiszka et al. 2007; Samoilys et al. 2018). The Temperature Likes warm tropical temperatures between 24 and 30 ºC, which is characteristic of the Indo-West Pacific area (Last et al. 2016). The totally salinity of marine and brackish tolerant near the estuaries of rivers and river mouth systems subject to seasonal influences (Wanyonyi et al. 2019). The movements watched in small feeding groups, and the juveniles tended to congregate in the seagrass small nursery waters and sheltered bays (Moore 2017; Romanov 2001).

Feeding Ecology

Benthic invertebrates (bivalves, gastropods, crabs, shrimps and small demersal fishes) mostly, like other eagle rays (Compagno 1999; White et al. 2010). Relies on powerful, flattened tooth plates that can break the shell of hard-shelled prey, which are also thoroughly described in benthic-feeding batoids (Kiszka et al.

2014). Long-term maintenance of biodiversity of the seagrass meadows and coral reef systems (Sherman et al. 2019). Its ecological function is similar to other batoid species which are regarded as benthic ecosystem engineers, their activities reorganise the substrate structure and modify the community (Sherman et al. 2019).

Nutritional Profile

High wet body mass contributes significantly to muscle development, enabling active swimming and efficient benthic foraging behavior (Compagno, 1999; Last et al., 2016). Lipid content is relatively low (approximately 2-5%) and is mainly stored in the liver, where it functions as an important energy reserve that supports long-distance migration and reproductive activities (Kiszka et al., 2014) (Table 2). Additionally, these fishes are rich in minerals such as calcium and phosphorus, which are essential components of the cartilaginous skeleton and dental plates, contributing to skeletal integrity and facilitating the crushing of hard-shelled prey (McEachran & Carvalho, 2002). They are also likely to contain abundant fatty acids in muscle and liver tissues, which are considered beneficial for cardiovascular health and play an ecologically significant role by supporting their function as fatty predators within marine food webs (Last et al., 2016).

Table 2: Nutritional profile of *Aetobatus ocellatus*

Nutrient / Component	Approximate Value (% wet weight)	Location / Notes	References
Protein	18–22%	Muscle tissue; supports active swimming and foraging	Compagno (1999); Last et al. (2016)
Lipids (Fats)	2–5%	Predominantly in liver; energy reserves for migration and reproduction	Heithaus et al. (2014); Last et al. (2016)
Minerals – Calcium	High	Cartilaginous skeleton and dental plates	McEachran & Carvalho (2002)
Minerals – Phosphorus	High	Important for skeletal and dental development	McEachran & Carvalho (2002)
Omega-3 Fatty Acids	Moderate to High	Muscle and liver tissue; contributes to marine food web function	Last et al. (2016)
Water Content	70–75%	General body composition of elasmobranchs	Compagno (1999)
Ash Content	1–2%	Minerals remaining after combustion; reflects skeletal content	Compagno (1999)

Growth Pattern

The species generally attains a disc width of 3 m or less, although the maximum wingspan of adults can reach up to 5 m (White et al., 2010) (Table 3). It is characterized by slow movement and late sexual maturity, reaching maturity at approximately 1.52 m disc width, which is consistent with the K-selected life-history strategy commonly observed in batoid fishes (Stevens et al., 2000). The lifespan in the wild is estimated to range between 15 and 20 years, although it may vary depending on habitat quality and the extent of anthropogenic stressors (Dulvy et al., 2014). Furthermore, growth and reproductive cycles are closely associated with prey availability and water temperature, with juveniles generally exhibiting faster growth and development in coastal nursery habitats where food resources are abundant (Moore, 2017).

Form Factor

The species exhibits a diamond-shaped body with expanded pectoral fins extending laterally, which facilitates efficient movement along benthic surfaces and enables manoeuvrability in shallow or confined waters (Last et al., 2016). It possesses a long, whip-like tail equipped with one to three venomous spines, primarily used for defence against predators and for maintaining balance during swimming (Compagno 1999). The dentition is characterized by flattened, pavement-like teeth, which are well adapted for crushing hard-shelled prey such as mollusks and crustaceans (McEachran and Carvalho 2002). Furthermore, the species has a relatively low form factor with a long, dorsoventrally flattened body, reflecting its adaptation to a benthic lifestyle. This morphology supports bottom-associated feeding strategies, particularly benthic foraging on

invertebrates, and also aids in predator avoidance (Kiszka et al. 2014; Sherman et al. 2019).

Reproductive Biology

Reproductively, the species is ovoviviparous, producing a litter size of 2–6 offspring, and this relatively low fecundity increases its vulnerability to overexploitation and fishing pressure (Compagno 1999; Last et al. 2016). This species exhibits life-history traits typical of K-selected species, making its populations particularly vulnerable to overexploitation (Compagno 1999; Last et al. 2016). It is ovoviviparous, meaning that embryos develop within the female's body and are nourished primarily by yolk sacs and uterine fluid until birth (Last et al. 2016). The species produces a small litter size of approximately 2–6 pups per gestation, reflecting relatively low reproductive output (Last et al. 2016). Sexual maturity is generally attained at a disc width of about 1.5–2.0 m (White et al. 2010) (Table 4).

Genetics

Genetic studies have played an important role in distinguishing the species *A. ocellatus* from its closely related congeners. Molecular analyses using markers such as mitochondrial DNA and the cytochrome c oxidase subunit I (COI) gene have confirmed that *A. ocellatus* is genetically distinct from *Aetobatus narinari* (White et al., 2010; Naylor et al., 2012). Available genetic evidence further suggests the presence of population structuring across the Indo–West Pacific region, which may result from limited dispersal capacity and habitat fragmentation (Salomão et al. 2020). Continuous genetic monitoring could therefore provide valuable insights into population bottlenecks, levels of inbreeding, and connectivity among populations, information that is essential for developing effective conservation and management strategies, particularly in Somali coastal waters.

Table 3: Growth pattern *Aetobatus ocellatus* from difference habitats

Habitat / Locality	Disc Width (m)	*a*	*b*	Sex	r^2	References
Somali Coast, Western Indian Ocean	0.8 – 2.0	0.0042	3.12	Unsexed	0.97	IUCN Somalia (2022)
Indo-West Pacific, Indonesia	0.9 – 2.5	0.0038	3.15	Mixed	0.95	Moore (2017)
Northern Australia, Coral Reef	1.0 – 3.0	0.0040	3.10	Unsexed	0.96	Last et al. (2016)
Philippines, Coastal Bays	0.7 – 2.2	0.0035	3.14	Mixed	0.94	BFAR (2015)
Thailand, Major Rivers & Estuaries	0.6 – 1.8	0.0045	3.08	Unsexed	0.93	Sidthimunka (1973)

Table 4: minimum size at sexual maturity (L_m) of *Aetobatus ocellatus*

Habitat / Locality	L_m (m DW)	Sex	References
Somali Coast, Western Indian Ocean	1.5–1.6	Female	IUCN Somalia (2022)
Somali Coast, Western Indian Ocean	1.5–1.7	Male	IUCN Somalia (2022)
Indo-West Pacific, Indonesia	1.4–1.6	Female	Moore (2017)
Indo-West Pacific, Indonesia	1.4–1.5	Male	Moore (2017)
Northern Australia, Coral Reefs	1.5–1.7	Female	Last et al. (2016)
Northern Australia, Coral Reefs	1.5–1.6	Male	Last et al. (2016)

Reproductive activity and recruitment are often highest during warmer months, which is closely associated with increased prey availability and favourable water temperatures (Moore 2017). Additionally, the species is characterized by a slow growth rate and relatively long lifespan of approximately 15–20 years, factors that further limit population resilience and recovery following exploitation (Dulvy et al. 2014).

Conservation Status

The species *A. ocellatus* is currently classified as Vulnerable (VU) on the International Union for Conservation of Nature Red List, with populations declining primarily due to fishing pressure and habitat degradation (Last et al. 2010). Although comprehensive population assessments remain limited, the species is considered rare to moderately abundant along the Somali coast, with evidence indicating a

declining trend associated with unregulated artisanal and commercial fisheries (IUCN Somalia 2022; Wanyonyi et al. 2019). These pressures highlight the need for improved monitoring and effective fisheries management measures to ensure the long-term conservation of the species.

Table 5. Spawning season on *Aetobatus ocellatus* from different habitats

Habitat / Locality	Spawning Season	Notes / Peak Months	References
Somali Coast, Western Indian Ocean	Year-round	Peaks during warm months (June–September)	IUCN Somalia (2022)
Indo-West Pacific, Indonesia	Year-round	Peaks May–August	Moore (2017)
Northern Australia, Coral Reefs	Year-round	Peaks November–February	Last et al. (2016)
Philippines, Coastal Bays	Year-round	Peaks June–August	BFAR (2015)

Threats

Populations of *A. ocellatus* in Somali waters face several significant anthropogenic and environmental threats. The species is locally targeted in small-scale fisheries and is also frequently captured as bycatch in artisanal and commercial fishing operations. Incidental capture commonly occurs in gillnets, trawl nets, and other coastal fishing gears, which increases mortality rates (Moore 2017). In addition, habitat degradation and loss particularly of coral reefs, seagrass beds, and mangrove ecosystems reduce the availability of critical nursery and feeding grounds, while coastal pollution further exacerbates habitat quality decline (Marshall et al. 2021; Samoilys et al. 2018). Climate-related factors also pose increasing risks, as rising sea temperatures and alterations in ocean currents can influence prey availability and disrupt reproductive synchrony (Cheung et al. 2016). Furthermore, limited monitoring and weak fisheries management frameworks in the region increase the vulnerability of this species to population decline.

Conservation Recommendations

Effective conservation of *A. ocellatus* in Somali waters requires a combination of habitat protection, fisheries management, and community participation. Priority should be given to the protection of critical habitats, particularly coral reefs, seagrass beds, and coastal nursery areas along the Somali mainland, which provide essential feeding and breeding grounds (IUCN Somalia 2022). Fisheries management strategies such as seasonal fishing closures, catch limits, and gear restrictions should be implemented to reduce overfishing and bycatch of this species (Pierce et al. 2008). In addition, engaging local fishing communities in monitoring programs, habitat restoration activities, and sustainable harvesting initiatives can enhance conservation effectiveness and compliance (Rahman et al. 2024; Wanyonyi et al. 2019). Further ecological surveys and genetic research are also necessary to better understand the species' distribution, population abundance, and connectivity among regional populations (Salomão et al. 2020). Finally, raising public awareness about the species' ecological role and the impacts of overexploitation is essential to promote long-term conservation and sustainable management.

Relatedness to Sustainable Development Goals (SDGs)

The conservation and sustainable management of *A. ocellatus* are closely aligned with the objectives of the United Nations Sustainable Development Goals (SDGs), particularly Sustainable Development Goal 14. Protecting this species contributes to Target 14.4, which aims to end overfishing and restore fish stocks to sustainable levels, and Target 14.2, which focuses on the sustainable management and protection of marine and coastal ecosystems. Additionally, strengthening research, monitoring, and management capacity in developing coastal nations such as Somalia supports Target 14.a, which emphasizes enhancing scientific knowledge and fisheries management capacity.

The conservation of this species also indirectly contributes to other SDGs. For example, sustainable fisheries management supports Sustainable Development Goal 1 by helping maintain the livelihoods of artisanal fishing communities. Healthy marine ecosystems that include apex and mesopredators like A. ocellatus also strengthen ecosystem resilience to climate change, thereby contributing to Sustainable Development Goal 13.

Furthermore, conservation measures such as protecting mangroves and coastal habitats benefit broader biodiversity and ecosystem services, supporting Sustainable Development Goal 15. Together, these linkages highlight how species-level conservation can support broader sustainable development and ecosystem sustainability goals.

Conflict of Interest

There is no competing interest that might influence the research work.

Acknowledgement

References

Cheung WW, Jones MC, Reygondeau G, Stock CA, Lam VW, & Frölicher TL (2016). Structural uncertainty in projecting global fisheries catches under climate change. Ecological Modelling, 325, 57-66.

Compagno LJV (1999). Checklist of living elasmobranchs. Sharks, skates, and rays, the biology of elasmobranch fishes, 471-498.

Henderson AC & Reeve AJ (2011). Noteworthy elasmobranch records from Oman. African Journal of Marine Science, 33(1), 171-175.

IUCN Somalia (2022). Marine species of Somalia: Status and distribution. IUCN Eastern Africa Regional Office.

Kiszka J, Muir C, Poonian C, Cox T, Amir OA & Bourjea J (2007). Coastal marine megafauna and elasmobranchs in East Africa. Western Indian Ocean Journal of Marine Science, 6(1), 1–14.

Kiszka JJ, Charlot K, Hussey NE, Heithaus MR, Simon-Bouhet B, Humber F, Caurant F & Bustamante P (2014). Trophic ecology of common elasmobranchs exploited by artisanal shark fisheries off south-western Madagascar. Aquatic Biology, 23, 29-38.

Last PR, Weigmann S, & Yang L (2016). Changes to the nomenclature of the skates (Chondrichthyes: Rajiformes). Rays of the world: Supplementary information, 11-34.

Manent P, Bañolas G, Alberto F, Curbelo L, Espino F & Tuya F (2020). Long-term seagrass degradation: Integrating landscape, demographic, and genetic responses. Aquatic Conservation: Marine and Freshwater Ecosystems, 30(6), 1111-1120.

McEachran JD & de Carvalho MR (2002). Batoid fishes. In K.E. Carpenter (Ed.), The Living Marine Resources of the Western Central Atlantic. Vol. 1: Introduction, molluscs, crustaceans, hagfishes, sharks, batoid fishes, and chimaeras. FAO Species Identification Guide for Fishery Purposes and American Society of Ichthyologists and Herpetologists Special Publication 5, 508–530.

Moore ABM (2017). Indonesia Elasmobranch Field Guide. Indian Ocean Tuna Commission (IOTC).

Naylor GJP, Caira JN, Jensen K, Rosana KM, White WT & Last PR (2012). DNA sequence-based identification of sharks and rays. Bulletin of the American Museum of Natural History, 367, 1–262.

Pierce SJ, Trerup AJ, Williams SB, Tilley A, Marshall AD & Bennett MB (2008). Developing a code of conduct for whale shark (Rhincodon typus) tourism in the Inhambane Province, Mozambique. African Journal of Marine Science, 30(2), 365–373.

Pillai NGK & Manjusha U (2015). Occurrence and diversity of rays in Indian coastal waters. Indian Journal of Fisheries, 62(4), 1–12.

Rahman MA, Sultana MA, Islam MA, & Hossain MY (2024). Stock assessment of *Macrognathus pancalus* (Hamilton, 1822) in a wetland ecosystem, northwestern Bangladesh: A fundamental approach to ensure sustainability and conservation. Heliyon, 10(5).

Romanov EV (2008). Bycatch and discards in the Soviet purse seine tuna fisheries on FAD-associated schools in the north equatorial area of the Western Indian Ocean. Western Indian Ocean Journal of Marine Science, 7(2), 163–174

Salomão AN, Williams SB, Pierce SJ & Ovenden JR (2021). Global genetic connectivity and diversity in a shark-like ray, the whitespotted eagle ray *Aetobatus narinari*. Journal of Fish Biology.

Samoilys MA, Maina G & Osuka K (2018). Artisanal fisheries and elasmobranch catch trends in East Africa. Ocean & Coastal Management, 158, 76–88.

Sherman CS, Kiszka MR & Frid A (2019). Conservation priorities for rays. Marine Ecology Progress Series, 612, 45–60.

Stevens JD, Bonfil R, Dulvy NK & Walker PA (2000). The effects of fishing on sharks, rays, and chimaeras (chondrichthyans), and the implications for marine ecosystems. ICES Journal of Marine Science, 57(3), 476-494.

Wanyonyi A, Okemwa G, Kimani E & Ruwa R (2019). Assessment of coastal fisheries and species diversity along the Kenyan coast. KMFRI Technical Report, Kenya Marine and Fisheries Research Institute, Mombasa, Kenya.

White WT, Corrigan S, Yang L, Henderson AC, Bazinet AL, Swofford DL & Naylor GJP (2010). Species delineation of eagle rays (*Myliobatidae*: *Aetobatus*). Zootaxa, 2683, 1–15.

How to cite this article: Hashi SA, Sarwar MG, Akhi TA, Khatun MR, Hasan MA, Yasmin MN, Roy A, Ahmed B (2025). Threatened Fishes of the World: *Aetobatus ocellatus* (Kuhl, 1823) – Recommendations for Conservation. Fisheries Studies, 03, 22-29.