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SHORT COMUNICATION

Social-media records of guitarfish sales in El-Arish, Egypt: Implications for conservation

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Abstract

Guitarfishes are coastal rays vulnerable to fishing pressure in Mediterranean waters. Seven seafood-retailer videos posted on social media platforms from El-Arish, North Sinai, Egypt, between 7 and 23 June 2026 were examined as opportunistic records of guitarfish retail availability. Six showed whole guitarfish-like rays and one showed processed product. The visible morphology did not permit reliable distinction between *Rhinobatos* and *Glaucostegus*. Minimum visually distinguishable counts summed to 74 across the six whole-animal videos; the sum of record-level counts and conditional estimates was approximately 101-177. These observations document repeated market availability but do not establish catch location, maturity or seasonal aggregation. Species verification, landing-to-market traceability and targeted compliance checks are recommended.

Keywords: Guitarfish, Rhinopristiformes, seafood retail, social media, North Sinai, fisheries conservation

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The common guitarfish *Rhinobatos rhinobatos* (Rhinobatidae) and blackchin guitarfish *Glaucostegus cemiculus* (Glaucostegidae) have been documented in Egyptian Mediterranean waters, including off Alexandria (Abdel-Aziz *et al*. 1993; Ragheb and Hasan 2021). Both species are globally classified as Critically Endangered (CR) on the IUCN Red List (Jabado *et al*. 2021; Kyne and Jabado 2019), whereas *R. rhinobatos* is classified as Endangered (EN) in the Mediterranean regional assessment (Bradai and Soldo 2016). Guitarfishes are exposed to coastal and demersal fishing (Dulvy *et al.* 2014; Newell 2017). Although these species belong to different families, their general body form can be difficult to distinguish in incomplete market photographs (Mendez *et al*. 2022).

Online seafood advertisements can document market occurrence where conventional monitoring is incomplete, but cannot substitute for verified catch or landing records (Giovos *et al*. 2018; Taklis *et al*. 2020). Here, we describe seven El-Arish retailer videos, assess the strength of the identification and numerical evidence, and consider how such records can support preliminary conservation monitoring.

El-Arish is situated on the Mediterranean coast of North Sinai, Egypt (Figure 1). Seven videos posted on Facebook by local seafood retailers between 7 and 23 June 2026 were examined. For each record, the posting date, retailer source and video link were documented, and the original footage was retained for verification of identification and individual counts. Seller statements and local enquiries attributed the animals to catches reportedly landed at El-Arish Port, but neither the capture areas nor the landings were independently verified. Posting dates were treated as market-record dates, not necessarily capture dates. Each video was analysed as a separate market record from a different source, although individual fish could not be matched across records.

The whole animal showed flattened anterior discs, pointed snouts and elongated tails consistent with guitarfish-like rays (Rhinopristiformes). However, views of the rostral ridges, nasal flaps and spiracular folds were insufficient to distinguish *Rhinobatos* from *Glaucostegus* (UNEP/MAP–SPA/RAC 2021; Mendez *et al*. 2022). Consequently, none of the records was assigned to genus or species, and the identity of the processed material could not be verified from its appearance.

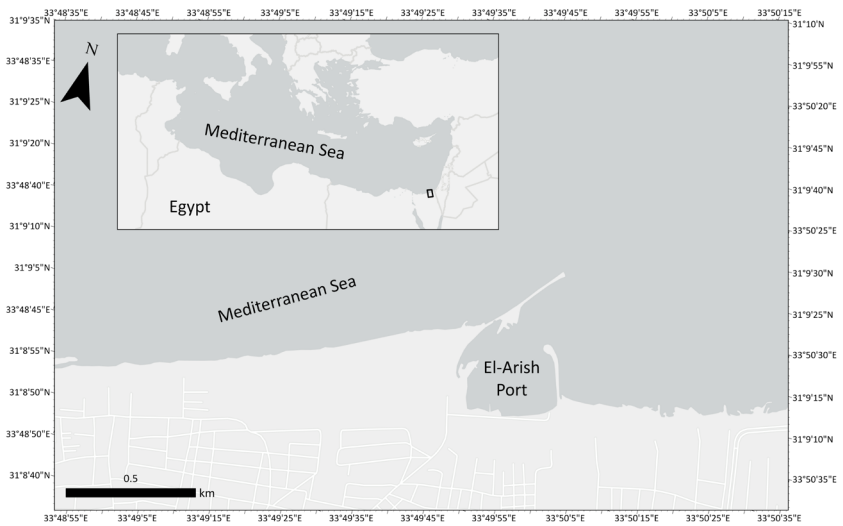


Figure 1. El-Arish Port on the Mediterranean coast of North Sinai, Egypt

The minimum number of distinguishable whole individuals was recorded in each video. For Records 1 and 3, approximate ranges included partly concealed individuals, whereas Records 4, 6 and 7 permitted direct counts (Table 1). For Record 2, the retailer reported approximately 350 kg of guitarfishes, with individual body masses of 4-11 kg. Dividing the reported total mass by these mass limits yielded approximately 32-88 individuals, assuming the reported biomass consisted of guitarfishes. Record 5 was excluded from numerical estimates because the quantity of processed meat could not be reliably converted into individual counts. Counts and estimated ranges were summed across the six whole-animal records.

Table 1. Seven Facebook videos posted by different seafood retailers in El-Arish, Egypt, June 2026. Counts and estimated ranges were recorded separately for each video; the processed-product record was excluded from numerical estimates.

Record No.	Date	Material	Minimum visible	Count / estimated range	Basis
1	7 June	Whole	12	20-30	Visual estimate; partly concealed
2	8 June	Whole	18	≈32-88	Reported biomass calculation
3	11 June	Whole	13	18-28	Visual estimate; partly concealed
4	14 June	Whole	12	12	Direct count
5	14 June	Processed	-	Not estimated	Processed material; not countable
6	16 June	Whole	18	18	Direct count
7	23 June	Whole	1	1	Direct count

Across the six whole-animal records, minimum visible counts summed to 74, while the combined record-level counts and estimated ranges totaled approximately 101-177 (Table 1). Record 2 (8 June) contributed the largest estimated quantity (approximately 32-88 animals). The retail displays included a guitarfish-like ray shown alongside other fish (Figure 2) and overlapping guitarfish-like rays that obscured some individuals (Figure 3).

The records provide contemporary evidence of repeated catch of guitarfish-like ray in El-Arish retail outlets, but do not establish whether the animals were caught locally or on fishing trips away from the area. Neither measured body size nor reproductive information was available, precluding conclusions about maturity, seasonal aggregation or reproductive habitats. These records identify El-Arish seafood markets as practical locations for targeted guitarfish monitoring, including species verification and investigation of fishery sources.



Figure 2. A guitarfish-like ray displayed at an El-Arish seafood retailer



Figure 3. Piled guitarfish-like rays displayed at an El-Arish retail outlet

Egyptian fisheries oversight is governed by Law No. 146 of 2021 and its executive regulations (Decree No. 706 of 2023), alongside relevant provisions of Environmental Law No. 4 of 1994 (Arab Republic of Egypt 1994, 2021, 2023). Both *Rhinobatos rhinobatos* and *Glaucostegus cemiculus* are included in Annex II of the SPA/BD Protocol, as amended by Decision IG.27/7, which entered into force on 4 May 2026 (UNEP/MAP 2025). Egypt is a contracting party to the General Fisheries Commission for the Mediterranean (GFCM) (GFCM 2025).

Under Recommendation GFCM/42/2018/2, elasmobranch species listed in Annex II of the SPA/BD Protocol must not be retained on board, transshipped, landed, transferred, stored, sold, displayed or offered for sale, and must be released alive and unharmed where possible (GFCM 2018). CITES Appendix II regulates international trade in *Rhinobatidae* spp. and *Glaucostegus* spp., with the latter subject to a zero annual export quota for wild-taken specimens traded commercially (CITES 2026). The CITES provisions regulate international trade and do not themselves establish a general prohibition on domestic retail sales. As species identity, catch provenance and applicable national authorizations remain unverified, the available evidence does not establish a legal infringement.

Social-media videos and photographs can provide preliminary evidence of guitarfish availability in seafood markets and help identify priorities for conservation monitoring. However, direct investigations are necessary to verify species identity, catch origin and the number of individual animals involved. We therefore recommend coordinated monitoring at El-Arish landing sites and seafood markets by the Agency for the Protection and Development of Lakes and Fish Resources, the Egyptian Environmental Affairs Agency and relevant port and market inspectors. Monitoring should include direct examination of specimens, review of available landing and trade records, and documentation of vessel or supplier, capture area, landing date and retail outlet. Clear dorsal and ventral photographs, supplemented by molecular identification where necessary, would improve species verification (Naylor *et al*. 2012). Training fishers and inspectors in species identification and safe release procedures, where applicable, should complement these efforts. Any enforcement action should be based on independently verified evidence of legal violations rather than social-media observations alone.

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Ethics committee approval: Ethical approval was not required because the study did not handle live animals or collect specimens and was based on publicly shared retail-video material and contextual information.
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