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New record of *Argyropelecus gigas* Norman, 1930 and *Conocara fiolenti* Sazonov & Ivanov, 1979 from the Arabian Sea Coasts of Oman

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Short Communication

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Abstract

Two specimens of *Argyropelecus gigas* and *Conocara fiolenti* were collected from off the city of Salalah on the Arabian Sea coasts of Oman. The specimens represent the first confirmed record of the species from the northwestern quadrat of the Indian Ocean. Meristic and morphometric characters match those described for these species.

Keywords: range extension, Salalah, New record, collection, Indian Ocean

Umman'ın Arap Denizi Kıyılarından *Argyropelecus gigas* Norman, 1930 ve *Conocara fiolenti* Sazonov & Ivanov, 1979'un için yeni kayıtlar

Özet

Umman'ın Arap Denizi kıyılarındaki Salalah kentinden *Argyropelecus gigas* ve *Conocara fiolenti* örnekleri toplandı. Örnekler, Hint Okyanusu'nun kuzeybatı kuadratından bu türler için doğrulanmış ilk kayıtları temsil etmektedir. Meristik ve morfometrik karakterler bu türler için tanımlananlarla eşleşmektedir.

Anahtar Kelimeler: Menzil genişletme, Salalah, Yeni kayıt, koleksiyon, Hint Okyanusu

INTRODUCTION

With the continuous records of fish species, it became obvious that human knowledge about marine fish diversity is far from been comprehensive and many species are waiting for records and descriptions. Research reports authenticating range extensions are often disregarded several records of fish species that are considered unimportant, but knowledge of those species coming from certain localities deliver the basic information for investigations on biogeography, speciation, ecology, fisheries, and conservation (Smith et al., 2017).

Scientific investigations on the Omani ichthyofauna started in the late 1800s with the appearance of the publication of Boulenger (1887, 1889). Since then, numerous reports were published on the fish fauna of Oman, including the Arabian Gulf and Sea of Oman (White and Barwani, 1971; Heemstra, 1973; Fischer and Bianchi, 1984; Kuronuma and Abe, 1972; Al-Abdessalaam, 1995; Jawad and Al-Mamry, 2009; Jawad et al., 2010a, b; Al-Jufaili et al., 2010; Jawad, 2011a, b).

Individuals of *Argyropelecus gigas* Norman, 1930 were recorded from the Eastern Pacific from Portugal to South Africa (Badcock, 1984) and in the Western Atlantic including the Gulf of Mexico (Rass, 1971). In the Indian Ocean, *A. gigas* was reported in the food of the longnose lancetfish (*Alepisaurus ferox*) in the Seychelles waters (Potier et al., 2007) an din the food of yellowfin tuna *Thunnus albacares* (Bonnaterre, 1788) in the eastern Arabian Sea (Varghese and Somvanshi, 2016).

Conocara fiolenti Sazonov and Ivanov, 1979 distributed in the eastern Atlantic from Azores Island and in the South Atlantic at (31°S, 3°E) and Pacific (19°49'N, 151°48'E) (Froese and Pauly, 2020). It has been reported from the eastern part of the Indian Ocean (Sazonov et al., 2009).

In the present paper, we report on two fish new records belonging to the families Sternoptychidae and Alepocephalidae**.** From the distribution point of view of the two species, the specimens of *A. gigas* and *C. fiolenti* represent new records for the North West region of the Arabian Sea and the coasts of Oman Arabian Sea coasts of Oman.

MATERIALS and METHODS

One adult specimen of each of *A. gigas* and *C. fiolenti* (Figure 1A, B) were caught off the coast of Salalah City in the Arabian Sea coast of Oman Gulf (15°30′02″N 54°37′26″E). The fishes measured 80- and 250-mm TL respectively. The sizes of the two specimens were within the reported sizes for these two species by Markle and Sazanov (1990) and Quéro et al. (1990) respectively. The fish was caught by deep fishing trawler (300 -1000 m) operating in the vicinity of Salalah City on 6 July 2011. The specimens were fixed in 10% formalin and later preserved in 70% ethanol for deposit in the fish collection of the Omani Marine Science and Fisheries Centre, Ministry of Agriculture and Fisheries, Muscat, Sultanate of Oman.

Methods for taking measurements and counts follow Schultz (1938) for *A. gigas* and Sazonov et al. (2009) for *C. fiolenti*. Taxonomy and spelling follow Eschmeyer et al. (2020).

The morphological and meristic characters of the two specimens are in general agreement with those given for the species in the literature and the proportions and meristic values are presented in Table 1.

Figure 1. A- *Argyropelecus gigas,* 80 mm TL*;* **B-** *Conocara fiolenti*, 125 mm TL collected from the Arabian Sea coasts of Oman (Photograph by Saud M. AL JUFAILI).

Table 1. Morphometric and meristic characters of *Argyropelecus gigas* and *Conocara fiolenti* from the Arabian Sea coasts of Oman (measurements in mm)

Morphometric characters	***A. gigas***	**C. *fiolenti***
Total length (TL)	80	250
Standard length (SL) (% in TL)	71.4 (89.4)	232.5 (93)
Head length (HL) (% in SL)	23.8 (33.3)	46.5 (20)
Snout length (% in HL)	5.7 (23.4)	12 (25.8)
Eye diameter (% in HL)	8.6 (36.1)	7.5 (16.1)
Predorsal fin length (% in SL)	38.1 (53.4)	153 (65.8)
Postdorsal fin length (% in SL)	51.4 (71.9)	180 (77.4)
Prepectoral fin length (% in SL)	19.1 (26.8)	72 (30.9)
Preanal fin length (% in SL)	45.2 (63.3)	142.5 (61.3)
Body depth (% in SL)	35.7 (50)	48 (20.7)
Caudal peduncle depth (% in SL)	8.1 (11.3)	18 (7.74)
Meristic characters		
Number of dorsal fin rays	9	19
Number of anal fin rays	13	27
Number of pectoral fin rays	11	9
Number of pelvic fin rays	6	-

RESULTS and DISCUSSION

The specimen of *A. gigas* has the following set of characters: body deep and laterally compressed; dorsal profile elevated; angular shape snout, tubular eye directed dorsally; mouth vertical; prominent post-orbital spine; absence of spine at the posterior end of the abdomen beneath the origin of pelvic fins; photophores making an almost uninterrupted series from behind pectoral to the base of caudal fin; preopercle at a lower angle with one spine, which is slightly curved outward and directed ventrally and above which is a very small one directed outward; no scales found on body. Colour in preserved specimen light brown on the upper part of body getting blackish on sides and abdomen.

The specimen of *C. fiolenti* is characterised in having an elongated torpedo-shaped body, with the deepest part located at the pelvic fins region and decreased gradually towards the tail; head conical in shape and medium size, with depth, increases posteriorly; snout long and eye small; caudal peduncle not marked; anal opening located mid-way between the origins of pelvic and anal fins; leathery keel structure present at the anterior origin of the dorsal fin, which is a vertical line with the anterior 3rd of the base of anal fin; rays in anal fin short increased posteriorly; pelvic fins located near the mid-part of the body closer to anal-fin than to the pectoral fins; pectoral fins are long situated below the imaginary horizontal line passing through the mid-part of body, they closer to the middle of the body than the ventral body profile; scales are small, head, the area around the anus, the area extending from preoperculum to base of pectoral fins are with no scales; lateral line canal well-developed.

Quite a few other fish species have lately been recognized for the first time in the waters of Oman, probable due to the increased fishing effort and monitoring (Jawad and Al Mamry, 2009; Jawad et al., 2011a, 2011b, 2015; Jawad and Pitassy, 2015; Al-Marzouqi et al., 2018). This range extension extends of both *A. gigas* and *C. fiolenti* to the Indian Ocean region is important from the zoogeography of these species and will be a significant addition to the geographical range distribution of both *A. gigas* and *C. fiolenti*. These species typically occur in relatively deep waters, and it is possible, if not probable, that it is found in the entire Northwest Indian Ocean region.

CONCLUSIONS

New records of fish species from the Omani waters regularly appear in scientific publication. The presence of *Argyropelecus gigas* and *Conocara fiolenti* in the coasts of Salalah on the Arabian Sea coasts of Oman was not unexpected, but it considered a confirmation of their presence in this part of the world. The meristic and morphometric characters showed to be matching those described for these species.

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