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Confirmed record of *Monodactylus argenteus* (Linnaeus, 1758 (Family Monodactylidae) from Jubail, Saudi Arabia, Arabian Gulf

L. A. Jawad

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Abstract

Confirmed record of Monodactylus argenteus (Family Monodactylidae) *from Jubail, Saudi Arabia, Arabian Gulf.*— The first record of *M. argenteus* from the Arabian Gulf coasts of Saudi Arabia is confirmed, based on a sample measuring 158 mm in SL. Morphometric and meristic data are provided for this specimen.

Key words: Arabian Gulf, Saudi Arabia, New record, *Monodactylus argenteus*, Range distribution.

Resumen

Confirmación del registro de Monodactylus argenteus *(familia Monodactylidae) en Jubail, Arabia Saudita, golfo Pérsico.*— Se confirma el primer registro de *M. argenteus* en las costas de Arabia Saudita en el golfo Pérsico con un ejemplar de 158 mm SL. Se indican los datos morfométricos y merísticos del espécimen.

Palabras clave: Golfo Pérsico, Arabia Saudita, Nuevo registro, *Monodactylus argenteus*, Área de distribución.

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Laith A. Jawad, Manukau, Auckland, New Zealand.

E–mail: laith_jawad@hotmail.com

Introduction

Publication of fish taxonomy in the Arabian Gulf started when Blegvad published his book (Blegvad & Løppenthin, 1944) on fishes in the Arabian Gulf in 1944. Since then, several works have appeared on the ichthyofauna of the gulf (White & Barwani, 1971; Kuronoma & Abe, 1972, 1986; Relyea, 1981; Fischer & Bianchi, 1984; Hussain et al., 1988; Randall, 1995).

The fish fauna of the Arabian Gulf coast of Saudi Arabian have been poorly studied and complete, extensive works are lacking. However, a few significant publications have been published from parts of the Saudi coasts of the Arabian Gulf (McCain et al., 1984; Coles & Tarr, 1990; Krupp & Anegay, 1993; Krupp & Müller, 1995; Krupp & Al–Marri, 1996).

The silver moony *M. argenteus* is reported from the Red Sea and East Africa (Heemstra, 1984) to Samoa, north to the Yaeyamas, and south to New Caledonia and Australia (Blaber, 1980). In the Arabian Gulf area, the only record of this species is that of Krupp et al. (2000).

The present paper confirms the presence of *Monodactylus argenteus* in the Saudi Arabian coast of the Arabian Gulf waters following the capture of the present specimen, described in a recent taxonomic work.

Studied material

On 28 May 2013, a single specimen of the silver moony *M. argenteus* (fig. 1) was collected at Jubail City on the Arabian Gulf coast of Saudi Arabia. The specimen was caught by fishermen using 30 x 10 m drifting gill nets of 25 mm mesh size. Its total length was measured with dial calipers to the nearest 0.1 mm and it was weighed to the nearest kilo. It was made available by M. Ibrahim of the Fish Welfare Branch, Al–Jubail, Ministry of Agriculture, Saudi Arabia. The fishermen usually make three to five hauls per hour. The morphometric and meristic details of the species were recorded according to Heemstra (1984) (table 1). The specimen was fixed in 10% formalin and later preserved in 70% ethanol for deposit in the fish collection of the Fish Welfare Branch, Ministry of Agriculture, Al–Jubail, Saudi Arabia.

Fig. 1. *Monodactylus argenteus*, 200 mm TL.
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Table 1. Morphometric and meristic characters of *Monodactylus argenteus* collected from Jubail, Saudi Arabia, Arabian Gulf: TL. Total length; HL. Head length; SL. Standard length.
Tabla 1. Carácteres morfométricos y merísticos de Monodactylus argenteus *recolectado en Jubail (costas de Arabia Saudita, golfo Pérsico): TL. Longitud total; HL. Longitud de la cabeza; SL. Longitud estándar.*

Morphometric characters	**in mm**
Total length (TL)	200
Standard length (% in TL)	158
Head length (% in SL)	50
Eye diameter (% in HL)	18
Preorbital length (% in HL)	12
Posorbital length (% in HL)	30
Predorsal fin length (% in SL)	63
Postdorsal fin length (% in SL)	136
Prepectoral fin length (% in SL)	47
Preanus length (% in SL)	82
Preanal fin length (% in SL)	90
Postanal fin length (% in SL)	144
Maximum body depth (% in SL)	111
Caudal peduncle depth (% in SL)	16
Pectoral fin length (% in SL)	30
Meristic characters	
Dorsal fin spines	7
Dorsal fin rays	28
Anal fin spines	3
Anal fin rays	29
Pectoral fin rays	17

Remarks

The total length was 200 mm and it weighed 33 g. *M. argenteus* can attain lengths of 270 mm (Allen et al., 2002) and it is found in the pelagic–neritic zone of a marine, freshwater and brackish environemnts (Riel & Baensch, 1991). As far as the author is aware, the only specimen of *M. argenteus* given with SL are in Fish Base (Froese & Pauly, 2013) reported from the Japanese Archipelago, and given as 93 mm SL. *M. argenteus* has five synonyms, *Chaetodon argenteus* Linnaeus, 1758, *Psettus argenteus* (Linnaeus, 1758), *M. argenteus*, *Scomber rhombeus* Forsskål, 1775 and *Psettus rhombeus* (Forsskål, 1775). This species has not been recorded in the Arabian Gulf area under any of its synonyms. The importance of the present record of *M. argenteus* comes as a result of ichthyological collections in the area and the rarity of the members of the family Monodactylidae in Saudi waters. The species reported in this study has not been reported previously in the fish fauna literature from the

Arabian Gulf in general or from the Saudi coasts of the Arabian Gulf (Fischer & Bianchi, 1984; McCain et al., 1984; Coles & Tarr, 1990; Krupp & Anegay, 1993; Krupp & Müller, 1995; Krupp & Al–Marri, 1996; Carpenter et al., 1997). Krupp et al. (2000) obtained their specimen in Dubai, at a Deraa fish landing site at the entrance of Khor Dubai. The Dubai landing site is very large, receiving fish stock mainly from the Sea of Oman and southern coasts of Oman. Such practice sheds doubts on the origin of the specimen obtained by Krupp et al. (2000). It is highly likely the specimen originated somewhere in the Omani waters. Therefore, the record of Krupp et al. (2000) can not confirm the presence of this species in the Arabian Gulf waters and the present record is considered the first confirmation for the presence of this species in the gulf area, indicating a significant range extension of its previously known distribution. The reason why *M. argenteus* was not recorded before in the Saudi Arabian coasts of the Arabian Gulf might be because it is rare in the area or due to lack of adequate sampling. The use of diverse fish sampling techniques in the area, including scuba diving and underwater photography, has already ended the reputed rarity of several species (Jawad & Al–Mamry, 2009). It is premature to assess whether the present population is represented by only a few visitors of *M. argenteus*, exploring the new area or whether it is a well–established population, probably due to a lack of ichthyological expeditions and fishery surveys.

Thus, there is a need to investigate further the frequency of occurrence and to study the biological characteristics of this species to determine whether it has established a sustainable population in its new surroundings.

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