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# First record of *Gymnocranius griseus* (Temminck & Schlegel, 1843) (Family Lethrinidae) from southern Oman, Western Indian Ocean

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## Abstract

*First record of Gymnocranius griseus (Temminck & Schlegel, 1843) (Family Lethrinidae) from southern Oman, Western Indian Ocean.*— A single specimen (285 mm SL) of *Gymnocranius griseus* (Temminck & Schlegel, 1843) was collected from Salalah, Arabian Sea coast of Oman. It is the first record of this species from the Omani waters. It shows specific characters: deep body (2.17 times SL); evenly convex dorsal and ventral profile of head; ventral part of body profile straight; lower edge of eye slightly above a line from tip of snout to middle of caudal fin fork; eye relatively large, its diameter about equal to or slightly larger than preorbital and interorbital widths; mouth relatively small, posterior part of jaws reaching to about level of anterior nostrils; three pair and one pair of slender canines at front of upper and lower jaw, respectively, other teeth villiform, becoming conical on lateral sections. The specimen was identified as *G. griseus* as these characters fit the diagnostic description of Carpenter and Allen (1989).

Key words: *Gymnocranius griseus*, Salalah, Arabian Sea, First record.

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## Resumen

*Primer registro de Gymnocranius griseus (Temminck & Schlegel, 1843) (Familia Lethrinidae) del sur de Omán, oeste del océano Índico.*— Se recolectó un único espécimen (285 mm longitud estándar) de *Gymnocranius griseus* (Temminck & Schlegel, 1843) en la ciudad de Salalah (Omán), en la costa del mar de Arabia. Es el primer registro de esta especie en las aguas de Omán. Presenta características específicas: cuerpo alto (2,17 veces la longitud estándar); los perfiles dorsal y ventral de la cabeza son uniformemente convexos; el perfil de la parte ventral del cuerpo es recto; el borde inferior del ojo se sitúa ligeramente por

debajo de la línea que une la parte anterior de la boca con el centro de la aleta caudal lobulada; el ojo es relativamente ancho, de diámetro prácticamente igual o ligeramente superior a las distancias preorbitaria e interorbitaria; la boca es relativamente pequeña y la parte posterior de los maxilares alcanza prácticamente el nivel de los orificios nasales anteriores; presenta tres pares de finos caninos en la parte anterior del maxilar superior y un par en la parte anterior del inferior, así como otros dientes villiformes que adquieren forma cónica en las partes laterales. El espécimen fue identificado como *G. griseus* puesto que sus características corresponden a la descripción diagnóstica de Carpenter y Allen (1989).

Palabras clave: *Gymnocranius griseus*, Salalah, Mar de Arabia, Primer registro.

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## Introduction

The suborder Percoidei includes the families Lethrinidae, Nemipteridae, Sparidae, and Centracanthidae (Johnson, 1981). Using morphological characters and phyletic sequences, Akazaki (1962) and Johnson (1981) reviewed the evolutionary relationships of these families, and their taxonomic position and relationship are presently supported (Galbo et al., 2002).

The family Lethrinidae is divided into two subfamilies Lethrininae and Monotaxinae. They can be separated on the basis of the head scalation patterns and dorsal- and anal-fin ray counts (Carpenter & Allen, 1989). There are 39 species included in five genera of emperors and large-eye breams (Froese & Pauly, 2008). The distribution of these species is restricted to the Indo-Pacific except for one species that is found in the eastern Atlantic (Carpenter & Allen, 1989). The genus *Lethrinus* comprises 29 species while Monotaxinae includes *Gnathodentex*, *Gymnocranius*, *Monotaxis*, and *Wattsia*. The monotaxine genera are monotypic with the exception of *Gymnocranius*, which contains eight species.

*G. griseus* (Temminck & Schlegel, 1843) has been reported from the East African coast from Natal northward to at least Somalia, Madagascar, Seychelles, Mauritius, Réunion, the Laccadives, south coast of India and Sri Lanka, in the Eastern Indian Ocean and Western Central Pacific (Carpenter & Allen, 1989).

Carpenter & Allen (1989) gave the distribution of the species of the genus *Gymnocranius* as follows: *G. audleyi* Ogilby, 1916 confined to the Australian waters in the east coast of southern Queensland and the southern half of the Great Barrier Reef; *G. elongates* Senata, 1973 east African and Seychelles species also found around the Solomon Islands, north to southern Japan and south to northern Australia; *G. euanus* (Günther, 1879) distributed in south Japan and China Sea, Australia, Coral Sea, New Caledonia, and Tonga; *G. frenatus* Bleeker, 1873 found mainly in the Indo-Malaysian Archipelago and South China Sea; *G. grandoculis* (Valenciennes, 1830) mainly distributed in the Indo-Pacific region from East Africa to southeastern Oceania and from Australia northward to Japan; *G. microdon* (Bleeker, 1851) confined to the areas southern Japan, the South China Sea, the Marshall Islands, and off Phuket and Thailand in the Andaman Sea. Borsa et al. (2010) defined the distribution of *G. oblongus* as known only from New Caledonia.

Carpenter & Allen (1989) commented that the true distributional limit of *Gymnocranius griseus* (Temminck & Schlegel) was somewhat obscure and the previous records of *G. griseus* (Smith, 1986 from South Africa; Winterbottom et al., 1989 from the Chagos Archipelago, Indian Ocean; Goren & Dor, 1994 from Red Sea; Fricke, 1999 from the Mascarene Islands) from the Western Indian Ocean probably pertain to the blue-lined large-eye bream, *Gymnocranius grandoculis*. Nevertheless, and even though Al-Jufaili et al. (2010) listed *G. grandoculis* among Oman fishes, our specimen was carefully examined and then identified as *G. griseus*. The specimen showed several diagnostic characters in counts, measurements and coloration on the body (Carpenter & Allen, 1989). Of particular note, compared to the blue-lined large-eye bream, it has a deeper body and no blue longitudinal lines on cheek and side of snout. This is the first record of the species from the Omani waters of the Middle East. The specimen is deposited in the fish collection of the Marine Science and Fisheries Centre, Muscat, Sultanate of Oman.

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## Studied material

On 2 V 2010 two specimens of *Gymnocranius griseus* (Temminck & Schlegel) (fig. 1) were caught by hand line and later purchased by the third author from Salalah Fish Market, Salalah, Southern Oman. The specimens were measured to the nearest millimeter following Carpenter & Allen (1989), and deposited in the fish collection of the Marine Science and



Fig. 1. *Gymnocranius griseus*, OMMSFC 1072, 285 mm SL, purchased in Salalah Fish Market, Salalah, southern Oman, Arabian Sea, 2 V 2010, collected by a hand-line.

*Fig. 1. Gymnocranius griseus*, OMMSFC 1072, de 285 mm de longitud, adquirido en el mercado de pescado de Salalah, Salalah, sur de Omán, mar de Arabia, 2 V 2010, pescado con caña.

Fisheries Centre, Ministry of Agriculture and Fisheries Wealth, Muscat, Sultanate of Oman, catalogue numbers OMMSFC 1072 and 1080. The specimens were compared to two previously identified specimens of *G. griseus* that measured 197 mm and 134 mm in length, with catalogue nos. MUFS 26859 Meitsu, Nango, Miyazaki, Japan and 32243, Shima, Mie, Japan that became available to the second author.

Body depth 2.17 times SL; dorsal and ventral profile of head evenly convex or ventral profile slightly straighter; lower edge of eye slightly above a line from tip of snout to middle of caudal fin fork; eye relatively large, its diameter about equal to or slightly larger than preorbital and interorbital widths; mouth relatively small, posterior part of jaws reaching to about level of anterior nostrils; three pairs and one pair of slender canines at front of upper and lower jaw, respectively; other teeth villiform, becoming conical on lateral sections; dorsal fin with 10 slender spines and 10 soft rays; anal fin with 3 slender spines and 10 soft rays; pectoral rays 14; lateral-line scales 50 on left side and 49 on right side plus 4 additional tubed scales extending on to base of caudal fin; caudal fin moderately forked with pointed tips, the median rays slightly longer than eye diameter; 5 ½ scale rows between lateral line and base of middle dorsal fin spines; gill rakers 4 + 5 = 9 on left side and 3 + 5 = 8 on right side of head; inner surface of pectoral fin axil naked.

In general, the body is silvery with sides ornamented with eight irregular narrow shiny dark bars; fins clear to yellowish white, dorsal, caudal, and anal fins distinguished with blurred patches; base of pectoral fin lacks dark coloration; a few scattered blue spots or scribbling on the snout and cheek not clearly visible in this thawed specimen.

## Remarks

According to Carpenter & Allen (1989), *Gymnocranius griseus* has 46–48 tubed lateral-line scales. However, our specimen (OMMSFC 1072, 285 mm SL) from the Arabian Sea showed 50 and 49 tubed lateral-line scales on left and right sides, respectively. Three specimens

of true Japanese *G. griseus* from the type locality (Nagasaki, Japan) showed 48–51 tubed lateral-line scales. Other diagnostic characters of the specimen fit the description of *G. griseus* given by Carpenter & Allen (1989). *Gymnocranius grandoculis* differs from *G. griseus* in having a series of narrow undulating, blue longitudinal lines on cheek and side of snout (Carpenter & Allen, 1989). Our specimen (OMMSFC 1072) did not have such blue lines.

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