

Journal of the Ocean Science Foundation

2018, Volume 30



NOTE

Range extension of Blubberlip Snapper *Lutjanus rivulatus* (Teleostei: Lutjanidae) to the Arabian Gulf

LAITH A. JAWAD

*Flat Bush, Manukau, Auckland 2016, New Zealand
Email: laith_jawad@hotmail.com*

ABDUL AZIZ AL-MARZOUQI

*Marine Science and Fisheries Centre, Ministry of Agriculture and Fisheries Wealth,
P. O. Box 427, Muscat, Oman*

IBRAHIM AL-ANBORY

*Marine Science and Fisheries Centre, Ministry of Agriculture and Fisheries Wealth,
P. O. Box 427, Muscat, Oman*

RASHID AL-SENAIDI

*Marine Science and Fisheries Centre, Ministry of Agriculture and Fisheries Wealth,
P. O. Box 427, Muscat, Oman*

Abstract

A particularly large specimen of Blubberlip Snapper *Lutjanus rivulatus* was collected from off the city of Khasab, Oman (860 mm TL). The fish represents the first confirmed record of the species from the Omani coast of the Arabian Gulf and extends the range reported in Randall (1995) into the Arabian Gulf. Color patterns as well as meristic and morphometric characters match to those described for the species. *Lutjanus rivulatus* is now documented from the Red Sea south to KwaZulu-Natal, and eastward to the Society Islands in the southeast Pacific Ocean.

Key words: fishes, fisheries, biogeography, species range, Indian Ocean, Arabian Sea, Oman.

Citation: Jawad, L.A. Al-Marzouqi, A.A., Al-Anbory, I. & Al-Senaidi, R. (2018) Range extension of Blubberlip Snapper *Lutjanus rivulatus* (Teleostei: Lutjanidae) to the Arabian Gulf. *Journal of the Ocean Science Foundation*, 30, 78–81.

doi: <http://dx.doi.org/10.5281/zenodo.1345335>

Recently a number of new records of fish species in the Arabian Gulf have been documented (Randall 1986, 1994, Hare 1990, Debelius 1993, Al-Abdessalaam 1995), and several new fish records have been documented from Omani waters in the past decade (Jawad & Al-Mamry 2009, Jawad *et al.* 2011a, Jawad *et al.* 2011b).

Randall (1995) reviewed the fishes of Oman and noted that *Lutjanus rivulatus* was found in the Gulf of Oman but did not extend into the Arabian Gulf. The only report of the presence of this snapper in the Arabian Gulf was from the Iranian coastline by Sadighzadeh *et al.* (2012), but without details on the collection.

The large adult specimen of *Lutjanus rivulatus* (Fig. 1) was caught from the coastline of the city of Khasab, Musandam region, Arabian Gulf coast of Oman (26.2192°, 56.2492°) (Fig. 2). The fish measured 765 mm SL and 860 mm TL, well larger than the maximum reported 650 mm TL for the species by Allen (1985) and 637 mm TL by Myers (1999); Randall (1995) reported that the species reached at least 800 mm TL. The specimen was caught using a long line at a depth of 20–30 m on 24 December 2016. The fish was 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 (OMMSFC1310).

Standard length (SL), from the tip of the snout to the base of the caudal fin, was used for proportional measurements, and total length (TL) for the maximum length of the specimen. Measurements were made with dial calipers to the nearest 1 mm. Morphometric and meristic details were recorded following Allen (1985) and are presented in Table 1.

The morphological characters of the specimen of *Lutjanus rivulatus* are in general agreement with those given for the species by Allen (1985). It is characterized by a deep body, with depth usually 2.0–2.4 in SL, the profile of the head steeply sloped (note in this very large specimen the body depth is extreme, 1.21 in SL, and the head is proportionally small, beyond the usual range, with head length 3.1 in SL); the lips of large adults characteristically thickened; the preorbital bone broad; the preopercular notch and knob moderately developed; the vomerine tooth patch crescentic without a medial posterior extension; the tongue smooth; gill rakers on lower limb of first arch (including rudiments) 11 or 12, total rakers on first arch 17 or 18; D X,15 or 16, A III,8 (listed as 9 in Randall [1995]); the posterior profile of dorsal fin rounded; the posterior profile of anal fin distinctly pointed; pectoral fins with 17 rays; the caudal fin truncate or slightly emarginate; and scale rows on back rising obliquely above lateral line. The body is generally brownish with a reddish shade becoming white to silvery ventrally; each body scale with one to several small bluish-white spots; the head with numerous undulating bluish fine lines and spots; and the fins from yellowish to dusky gray-brown.



Figure 1. *Lutjanus rivulatus*, OMMSFC1310, 860 mm TL, off Khasab, Oman, Arabian Gulf (A.A. Al-Marzouqi).

TABLE 1

Morphometric and meristic characters of
Lutjanus rivulatus from the Arabian Gulf
(measurements in mm)

Morphometric characters

Total length (TL)	860
Standard length (SL) (% in TL)	765 (88.9)
Head length (HL) (% in SL)	247 (32.3)
Preorbital length (Pre. O.) (% in HL)	92 (37.2)
Postorbital length (Post. O.) (% in HL)	128 (51.8)
Eye diameter (ED) (% in HL)	37 (15.1)
Upper-jaw length (UJL) (% in HL)	63 (25.5)
Predorsal-fin length (Pre.D.F.L.) (% in SL)	292 (38.2)
Postdorsal-fin length (Post D.F.L.) (% in SL)	649 (84.9)
Prepectoral-fin length (Pre.P.F.L.) (% in SL)	282 (36.9)
Pectoral-fin length (P.F.L.) (% in SL)	255 (33.3)
Prepelvic-fin length (Pre.Pel.F.L.) (% in SL)	289 (37.8)
Preanal-fin length (Pre.A.F.L.) (% in SL)	570 (74.5)
Postanal-fin length (Post A.F.L.) (% in SL)	656 (85.8)
Caudal-peduncle depth (C.P.D.) (% in SL)	83 (10.9)
Caudal-peduncle length (C.P.L.) (% in SL)	80 (10.5)
Body depth (B.D.) (% in SL, B.D. in SL)	630 (82.4, 1.21)
Caudal-fin length (C.F.L.) (% in SL)	96 (12.6)

Meristic characters

Number of dorsal-fin spines	X
Number of dorsal-fin rays	15
Number of anal-fin spines	III
Number of anal-fin rays	8
Number of pectoral-fin rays	17
Number of gill rakers on first arch	17

This range extension completes the western Indian Ocean distribution documented for the species, since the Arabian Gulf was the only region without records. Local fishermen report that they do occasionally catch this species in the waters around Khasab; it is likely these reports are reliable since the species is distinctive.

The species is very wide-ranging (Allen 1985), from the Red Sea south to KwaZulu-Natal, eastward to the Pacific Ocean (sparing southwestern Australia), north to Japan, south to the GBR, and extending into the South Pacific to the Society Islands. Myers (1999) extended the range to Palau and the Marianas in the central Pacific Ocean, but not farther east into the Marshall Islands or Hawai'i.

Acknowledgments

We thank the Ministry of Agriculture and Fisheries, Oman; the Ministry of Agriculture and Fisheries Wealth (MOAFW), the Omani Marine Science and Fisheries Centre, and the Directorate of Agriculture and Fisheries Developmental Fund for giving us the opportunity to work on the fishes of the Omani coast.



Figure 2. Map of Arabian Gulf region with collection location of Musandam indicated.

References

- Al-Abdessalaam, T.J.S. (1995) *Marine species of the Sultanate of Oman*. Marine Science and Fisheries Centre, Ministry of Agriculture and Fisheries, Muscat, Sultanate of Oman, 412 pp.
- Allen, G. R. (1985) *FAO Species Catalogue. Vol. 6. Snappers of the world. An annotated and illustrated catalogue of lutjanid species known to date*. FAO, Rome, Italy, 208 pp.
- Debelius, H. (1993) *Indian Ocean tropical fish guide*. Aquaprint, Neu Isenburg, Germany, 321 pp.
- Jawad, L.A. & Al-Mamry, J. (2009) First record of *Antennarius coccineus* (Lesson, 1831) from Gulf of Oman and second record of *Antennarius indicus* Schultz, 1964 from the Arabian Sea coast of Oman. *Marine Biodiversity Records*, 2, e163.
- Jawad, L.A., Al-Mamry, J. & Al-Mamary, D. (2011a) First record of toli shad, *Tenualosa toli* (Valenciennes, 1847), from the Oman Sea (Gulf of Oman). *Journal of Applied Ichthyology*, 27, 1379–1380.
- Jawad, L.A., Iwatsuki, Y., Al-Shogebai, S. R. A., Al-Mamry, J.M., Al-Busaidi, H., Al-Kharusi, L. H. & Tanaka, F. (2011b) First record of *Gymnocranius griseus* (Temminck & Schlegel, 1843) (family Lethrinidae) from southern Oman, Western Indian Ocean. *Arxius de Miscel-lània Zoològica*, 9, 1–5.
- Myers, R. F. (1999) *Micronesian reef fishes: a comprehensive guide to the coral reef fishes of Micronesia, 3rd revised and expanded edition*. Coral Graphics, Barrigada, Guam, USA. 330 pp.
- Randall, J. E. (1994) Twenty-two new records of fishes from the Red Sea. *Fauna Saudi Arabia*, 14, 259–275.
- Randall, J.E. (1995) *Coastal fishes of Oman*. Crawford House Publishing Pty Ltd, Bathurst, Australia, 439 pp.
- Sadighzadeh, Z., Tuset, V.M., Valinassab, T., Dadpour, M.R. & Lombarte, A. (2012) Comparison of different otolith shape descriptors and morphometrics for the identification of closely related species of *Lutjanus* spp. from the Persian Gulf. *Marine Biology Research*, 8, 802–814.