

<http://dx.doi.org/10.11646/zootaxa.3947.3.10>
<http://zoobank.org/urn:lsid:zoobank.org:pub:D070D713-3A15-4D97-B686-8DF67631ED7C>

A new species of *Saurida* (Pisces: Synodontidae) from the Mascarene Plateau, Western Indian Ocean

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Abstract

A new species of lizardfish, *Saurida tweddlei* n.sp., from the Mascarene Plateau, Western Indian Ocean, is described and figured. The new species is characterised by the following combination of characters: dorsal fin with 12–13 rays; pectorals with 14–15 rays; lateral-line scales 53–55; transverse scale rows above lateral line 4½, below lateral line 5½; pectoral fins moderately long (extending to or just beyond a line from origin of pelvic fins to origin of dorsal fin); 2 rows of teeth on outer palatines; 0–3 teeth on vomer; tongue with about 4–5 rows of teeth posteriorly; caudal peduncle compressed (depth greater than width); stomach and intestine pale whitish. A key to the species of *Saurida* of the Western Indian Ocean is provided.

Key words: Synodontidae, *Saurida tweddlei*, new species, key to species, Western Indian Ocean

Introduction

The Mascarene Plateau, Western Indian Ocean, extends approximately 2,000 km between the Seychelles and Mauritius. It covers an area of over 115,000 km² of shallow water with depths typically ranging from 20–150 m on the plateau. The fish fauna of the Mascarene Plateau and associated islands has been studied during a number of surveys in the last 150 years, and 1,123 species have been recorded, mostly from shallow reef habitats surrounding the islands (Fricke 1999; Jennings *et al.* 1999; Payet 2005).

Sampling of trawl catches during a survey of the demersal fish fauna of the northern part of the Mascarene Plateau (Seychelles Bank and Saya da Malha Bank) under the UNDP/GEF/UNOPS Agulhas and Somali Current Large Marine Ecosystem (ASCLME) Project by the Norwegian marine research vessel RV *Dr Fridtjof Nansen* in October and November 2008 yielded specimens of a large species of lizardfish belonging to the genus *Saurida* that could not be assigned to any known species of the family Synodontidae. Examination of these specimens at the South African Institute for Aquatic Biodiversity, Grahamstown, showed it to be an undescribed species which had been previously misidentified from the Seychelles as *Saurida undosquamis* (Richardson 1848) (Amaoka *et al.* 1976). Additional specimens collected from the Mascarene Plateau by the Japanese fisheries research vessel FV *Ryuyo-Maru No. 2* in 1978 were found during a recent visit to the National Museum of Nature and Science, Japan.

The genus *Saurida* is very diverse, with 21 species currently recognised world-wide, at least five of which have been reported from the Western Indian Ocean, including the Red Sea (Eschmeyer 2015). The specimens collected from the Mascarene Plateau belong to the *Saurida undosquamis* species group, characterised by Inoue & Nakabo (2006) as having dark dots on the upper margin of the caudal fin, pectoral fin exceeding origin to pelvic fin, anterior rays of dorsal fin neither elongate nor filamentous, predorsal length greater than distance between dorsal-fin and adipose-fin origins, 46–55 pored lateral-line scales, and vomer with 0–8 teeth. The specimens from the Seychelles Bank and Saya da Malha Bank differ from other species in the *undosquamis* group and are described herein as a new species that is apparently endemic to the Mascarene Plateau. A key to the species of *Saurida* of the Western Indian Ocean also is provided.

IA.7712, 193.1 mm SL; Cape Cuvier, WAM P22096-001, 398.3 mm SL, WAM P22097-001, 327.3 mm SL, WAM P22307-001, 346.6 mm SL; Carnarvon, WAM P7596, 265.2 mm SL; Shark Bay, WAM P5429, 189.7 mm SL, WAM P11758-11759, 2:199.5–215.6 mm SL.

Saurida sp.: Mediterranean: Lebanon, St. George Bay, AMS I.29395-001, 6:129.9–166.6 mm SL; Israel, Ashdod, HUJ 8436, 3:186–247.4 mm SL, NTM S.17060-001, 5:154.6–282.2 mm SL, Jaffa, SAIAB 42653, 193.7 mm SL, Haifa Bay, HUJ 12231, 184.6 mm SL. Red Sea: Gulf of Aqaba, Israel, Eilat, HUJ 6416, 159.9 mm SL; Gulf of Suez, Egypt, MNHN 1966-558, 5:138.3–214.4 mm SL, MNHN 1966-560, 149.0 mm SL, MNHN 1966-561, 161.2 mm SL; MNHN 1989-822, 3:108.0–214.8 mm SL, MNHN 1989-825, 135 mm SL, MNHN 1989-828, 152.7 mm SL, MNHN 1989-829, 155.6 mm SL; Eritrea, HUJ 19717, 6:135.1–185.0 mm SL.

Acknowledgements

The trawl survey of the Mascarene Plateau by the *RV Dr Fridtjof Nansen* was undertaken as part of the UNDP/GEF/UNOPS Agulhas and Somali Current Large Marine Ecosystem (ASCLME) Project. Thanks are due to the cruise leader, Tommy Bornman, for the preparation of the distribution map and Oddgeir Alvheim for his photo of the holotype; the staff of SAIAB, especially Roger Bills, Elaine Heemstra and Bafo Konqobe, for the provision of research facilities and assistance during a visit to Grahamstown, South Africa; Gento Shinohara (NSMT) for providing support to visit Japan; Akane Yoshikawa, Eri Katayama, and Masanori Nakae for their help at the NSMT; and Shinpei Ohashi for making radiographs of the NSMT specimens. I am grateful also to Hans Ho and Sergey Bogorodsky for their constructive comments on the manuscript.

References

- Amaoka, K., Hatanaka, H., Ida, H., Ikeda, I., Inada, T., Iwai, T., Kawahara, S., Kono, H., Kuronuma, K., Matsuura, K., Miyake, S., Nakamura, I., Ochiai, A., Okamura, O., Okutani, T., Sasaki, T., Sato, T. (Tetsuya), Sato, T. (Torao), Shimizu, T., Takeda, M., Taniuchi, T., Tominaga, Y. & Uyeno, T. (Eds.) (1976) *Colored Illustrations of Bottomfishes Collected by Japanese Trawlers. Vol. II.* Japan Deep Sea Trawlers Association, Tokyo, 188 pp.
- Eschmeyer, W.N. (2015) *Catalog of fishes: genera, species, references.* Electronic version. Available from: <http://research.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (accessed 12 February 2015)
- Fishelson, L., Golani, D., Russell, B., Galil, B. & Goren, M. (2012) Melanization of the alimentary tract in lizardfishes (Teleostei, Aulopiformes, Synodontidae). *Environmental Biology of Fish*, 95, 195–200.
<http://dx.doi.org/10.1007/s10641-012-9982-8>
- Fricke, R. (1999) *Fishes of the Mascarene Islands (Réunion, Mauritius, Rodriguez). An annotated checklist, with descriptions of new species. Theses Zoologicae 31.* Koeltz Scientific Books, Koenigstein, VIII + 759 pp.
- Inoue, T. & Nakabo, T. (2006) The *Saurida undosquamis* group (Aulopiformes: Synodontidae), with description of a new species from southern Japan. *Ichthyological research*, 53 (4), 379–397.
<http://dx.doi.org/10.1007/s10228-006-0358-y>
- Jennings, S., Marshall, S., Cuet, P. & Naim, O. (1999) The Seychelles. In: McClanahan, T.R., Sheppard, C.S. & Obura, D.O. (Eds.), *Coral Reefs of the Western Indian Ocean: Their Ecology and Conservation.* Oxford University Press, New York, pp. 399–432.
- Norman, J.R. (1935) A revision of the Lizard-fishes of the genera *Synodus*, *Trachinocephalus*, and *Saurida*. *Proceedings of the Zoological Society of London*, 1935 (1), 99–135.
<http://dx.doi.org/10.1111/j.1469-7998.1935.tb06233.x>
- Norman, J.R. (1939) Fishes. The John Murray Expedition 1933–34. *Scientific Reports, John Murray Expedition*, 7 (1), 1–116.
- Payet, R. (2005) Research, assessment and management on the Mascarene Plateau: a large marine ecosystem perspective. *Philosophical Transactions of the Royal Society*, 363, 295–307.
<http://dx.doi.org/10.1098/rsta.2004.1494>
- Richardson, J. (1848) Ichthyology of the voyage of H. M. S. Erebus & Terror. In: Richardson, J. & Gray, J.E. (Eds.), *The zoology of the voyage of H. H. S. "Erebus & Terror," under the command of Captain Sir J. C. Ross ... during ... 1839-43*, 2 (2), i–viii + 1–139, pls. 1–60. [London]
- Russell, B.C., Golani, D. & Tikochinski, Y. (2015) *Saurida lessepsianus* a new species of lizardfish (Pisces: Synodontidae) from the Red Sea and Mediterranean Sea, with a key to species of *Saurida* in the Red Sea. *Zootaxa* (in press).
- Shindo, S. & Yamada, U. (1972) Descriptions of three new species of the lizardfish genus *Saurida*, with a key to its Indo-Pacific species. *Uo*, 11, 1–13.
- Tanaka, S. (1917) Six new species of Japanese fishes. *Dobutsugaku Zasshi*, 29 (340), 37–40. [in Japanese].