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Note

Report of silverstripe blassop, *Lagocephalus sceleratus* (Gmelin, 1789) (Tetraodontidae) from south-west coast of India

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ABSTRACT

The silverstripe blassop, *Lagocephalus sceleratus* (Gmelin, 1789), is reported from the south-west coast of India (Kerala coast), which is characterised by a grey-brownish dorsal surface with black, regularly distributed spots of equal size and a wide silver band laterally on each side. The specimen collected is described and figured.

Keywords: Arabian Sea, Distribution extension, *Lagocephalus sceleratus*, South-west coast of India

Tetraodontidae (puffers), a speciose marine fish family, has about 19 genera and 130 valid species, mostly shallow water inhabitants of tropical/subtropical marine environments, with several species entering and occurring in brackish and freshwater environments (Nelson, 2006; Froese and Pauly, 2013). The silverstripe blassop *Lagocephalus sceleratus* (Gmelin, 1789) is a large beautiful fish species of the Tetraodontidae, preferring depth ranges of 18 to 100 m, and also a reef inhabitant species. *Lagocephalus sceleratus* is widely distributed in the Indo-West Pacific Ocean (Smith and Heemstra, 1986) and in the western Indian Ocean, it has been reported from South Africa, Oman and Maldives (Froese and Pauly, 2013). It is recently reported from north-eastern Mediterranean Sea, Cretan Sea and Iskenderum Bay as a migrant species (Akyol *et al*., 2005; Kasapidis *et al*., 2007; Torcu *et al*., 2010). Although from India, Randall (in tank photos) photographed a specimen of *L. scelelaratus* from Vizhinjam, Kerala and Rajan *et al.* (2011) listed it from Andaman waters, there is no published information available on the detailed descriptions of this species. The specimen of *Lagocephalus sceleratus* described in the present report was collected off Munambam, south-west coast of India at depths from 50 m. The specimen is deposited in the National Biodiversity Referral Museum, CMFRI, India (Accession Number GB.43.6.15.8) (Fig. 1).

On 18th September 2010, single specimen of *Lagocephalus sceleratus* was collected from a demersal fish trawl landing at Munambam Fisheries Harbour, south-west coast of India. The main catch was *Nemipterus* spp. and bycatch recorded were *Pseudanthias* spp., *Parascolopsis* spp., *Uranoscopus* spp., and *Epinephelus aereolatus*

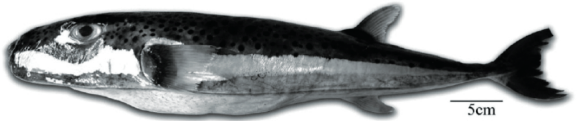

Fig. 1. *Lagocephalus sceleratus*, from Arabian Sea, collected off Munambam (south-west coast of India)

Diagnosis

Dorsal fin rays 12, anal fin rays 11; pectoral fin rays 18. Body elongated and cylindrical, slightly compressed laterally and ventrally. No scales on body, except small spinules on the belly and on the dorsal surface extending to origin of dorsal fin. Dorsal and anal fins located far posteriorly. Pelvic fins absent. Two distinct lateral lines; the upper forming an interconnecting pattern on sides of head and body. Top of pectoral fin base below lower margin of eye. A raised skin fold along lower side of caudal peduncle. Single gill slit opening in front of pectoral fins. Pectoral fin base black. The dorsal area grey-brownish with black, regularly distributed spots of equal size and covered pre-dorsally with small spinules. Wide silver bands present laterally. A silver blotch present in front of the eye. Ventral pale. Morphometric measurements of the specimen collected during the present

study are given in Table 1. Comparative morphometric measurements from other studies are presented in Table 2 and 3. These measurementsare in agreement with the previous descriptions of the species (Smith and Heemstra, 1986; Randall, 1995; Akyol *et al*., 2005). Though slight variations in morphometry were observed, asymmetry in morphological characters in *L. sceleratus* has been reported (Jawad *et al.,* 2013)

The silverstripe blassop contains tetradotoxin (TTX), which can cause food poisoning. Properly cleaned and processed puffer fish flesh is edible and considered a delicacy by Japanese people (Torda *et al*., 1973). *Lagocephalus sceleratus* is commercially exploited along the Red Sea and Suez Canal (Zaki and Mossa, 2005) and believed that some beneficial potential as analgesic for backbone pain (Sabrah *et al*., 2006).

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Table 1. Morphometric measurements of *Lagocephalus sceleratus* from south-west coast of India (in % SL)

Morphometric measurements	mm	% SL
Total length (TL)	540	118.7
Standard length (SL)	455	100
Head length	139.79	30.7
Head width	92.61	20.4
Eye diameter (horizontal)	29.37	6.5
Eye diameter (vertical)	16.12	3.5
Interorbital space	57.75	12.7
Snout length	76.74	16.9
Postorbital length	35.64	7.8
Width of gill opening	40.1	8.8
Predorsal length	313	68.8
Preanal length	277	60.9
Dorsal fin length	72.24	15.9
Dorsal fin base length	37.87	8.3
Anal fin length	66.24	14.6
Anal fin base length	30.71	6.7
Pectoral fin length	57.49	12.6
Caudal peduncle length	125	27.5
Caudal fin length	82.15	18.1

Table 2. Comparative morphometric measurements (mm) of *Lagocephalus sceleratus* from south-west coast of India (% SL) with other reports

Morphometric parameters	CMFRI GB.43.6.15.8	Akyol *et al.* (2005)	Bilecenoglu *et al.* (2002)	Bilecenoglu *et al.* (2002)
Total length	540	459	108	126
Standard length	455	391	98	111
Head length	30.7	30.2	28.6	28.8
Eye diameter	6.5	6.6	10.2	9.9
Inter-orbital space	12.7	11.5	12.2	11.7
Snout length	16.9	14.3	12.2	12.6
Predorsal length	68.8	67.3	60.2	54.1
Preanal length	60.9	67.3	60.2	62.2

Table 3. Comparative morphometric measurements (mm) of *Lagocephalus sceleratus* from south-west coast of India (as %TL) with other reports

Morphometric parameters	CMFRIGB.43.6.15.8	Torcu *et al.* (2010)	Akyol *et al.* (2005)	Bilecenoglu *et al.* (2002)	Kasapidis *et al.* (2007)
Total length	540	388-611	459	108-126	348
Head length (h)	25.9	25.0-37.3	25.7	25.4-25.9	-
Eye diameter	5.4	5.4-6.4	5.7	8.7-9.3	6.3
Interorbital space	10.7	10.0-10.5	9.8	10.3-11.1	-
Snout length	14.2	13.0-14.6	12.2	11.1	11.4
Predorsal length	58.0	54.0-55.5	57.3	47.6-54.6	56.9
Preanal length	51.3	48.6-52.1	57.3	54.6-54.8	-

References

Akyol, O., Unal, V., Ceyhan, T. and Bilecenoglu, M. 2005. First confirmed record of *Lagocephalus sceleratus* (Gmelin, 1789) in the Mediterranean. *J. Fish Biol.,* 66: 1183-1186.

Bilecenoglu, M., Taskavak, E., Mater, S. and Kaya, M. 2002. Checklist of the marine fishes of Turkey. *Zootaxa,* 113: 1-194.

Froese, R. and Pauly, D.. 2013. *Fishbase*. World Wide Web electronic publication. www.fishbase.org (version 07/2013).

Jawad, L. 2013. Asymmetry of some morphological characters of the silver-cheeked toadfish *Lagocephalus sceleratus* (Gmelin, 1789) collected from the sea of Oman *Water Res. Manag.*, 3(1): 25-30

Kasapidis, P., Peristeraki, P., Tserpes, G. and Mgoulas, A. 2007. First record of the Lessepsian migrant *Lagocephalus sceleratus* (Gmelin, 1789) (Osteichthyes: Tetraodontidae) in the Cretan Sea (Aegean, Greece). *Aqua. Inv.,* 2: 71-73.

Nelson, J. S. 2006. *Fishes of the world*. New Jersey: John Wiley & Sons, Inc., 624 pp.

Randall, J. E. 1995. Coastal fishes of Oman, University of Hawaii Press, Honolulu, Hawaii, 439 pp.

Rajan, P. T., Sreeraj, C. R. and Immanuel, T. 2011. Fish fauna of coral reef, mangrove, freshwater, offshore and seagrass beds of Andaman and Nicobar Islands. Zoological Survey of India, Andaman and Nicobar Regional Centre, Haddo, Port Blair.

Sabrah, M. M., El-Ganainy, A. A., and Zaky, M. A. 2006. Biology and toxicity of the puffer fish *Lagocephalus sceleratus* (Gmelin, 1789) from the Gulf of Suez. *Egypt. J. Aquat. Res.,* 32: 283-297.

Smith, M. M. and Heemstra, P. C. 1986. Tetraodontidae. In: Smith M. M. and Heemstra P. C. (Eds.). *Smith's sea fishes*. Springer-Verlag, Berlin, Germany, p. 894-903.

Torcu Koc, H., Erdogan, Z. and Ustun, F. 2010 Occurrence of the Lessepsian migrant, *Lagocephalus sceleratus* (Gmelin, 1789) (Osteichtyes: Tetraodontidae), in Iskenderun Bay (north-eastern Mediterranean, Turkey). *J. Appl. Ichthyol.,* 27: 148-149.

Torda, T. A., Sinclair, E. and Ulyatt, D. B. 1973. Puffer fish (Tetrodotoxin) poisoning: Clinical record and suggested management. *Med. J. Aust.,*1: 599-602.

Zaki, M. A, and Mossa, A. A. 2005. Red sea puffer fish poisoning: emergency diagnosis and management of human intoxication. *Egypt. J. Aquat. Res.,* 31: 370–378.

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