



## NEW RECORD OF CONVICT SURGEONFISH *ACANTHURUS TRIOSTEGUS* (LINNAEUS, 1758) FROM CHILIKA LAKE

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### INTRODUCTION

Chilika lagoon, the largest coastal wetland, situated between 19° 28'-19° 54' N latitude and 85° 05'-85° 38' E longitude and an internationally famous Ramsar Site, is regarded as the store house of rich living aquatic resources. With unique ecological characteristics resulting from two antagonistic hydrological processes (Fresh water inflow and sea water influx), Chilika has no parallel in the tropical world. Fisheries is most important natural resource of Chilika which provides direct or indirect livelihood for nearly 0.2 million fisherfolk. Various works have been reported from Chilika on the fish fauna of Chilika lagoon (Chaudhuri, 1916a-1916c; Hora, 1923; Koumans, 1941; Jones and Sujansinghani, 1954; Menon, 1961; Misra, 1969, 1976a, 1976b; Jhingran and Natrajan, 1966, 1969; Rajan *et al.*, 1968; Mohanty, 1973; Talwar and Jhingran, 1991; Rama Rao, 1995; Bhatta *et al.*, 2001; Mohanty *et al.*, 2006; Mohapatra *et al.*, 2007; Wetlands International-South Asia, 2011). All these reports together have reported 314 numbers of fish species from the lagoon. During the recent survey on "Ornamental fauna of East coast of India" the authors collected a specimen from the central sector of Chilika Lake identified as *Acanthurus triostegus* (Linnaeus, 1758) which was collected for the first time from Chilika Lake and also from Odisha coast.

#### *Acanthurus triostegus* (Linnaeus, 1758)

1758. *Chetodon triostegus* Linnaeus, *Syst. Nat. ed.* 10, P. 274

1986. *Acanthurus triostegus*, Randall, in Smith & Heemstra, *Smith's Sea Fishes*, p. 816, Pl. 127.

*Description:* D: IX, 25; A: III, 21; P:16; V: I, 5; LL: 151. Body ovate, compressed and deep; depth 2.32 in length with caudal and 1.87 in standard length; head 3.72 in length with caudal and 3 in standard length. Profile of head convex before eyes and concave on snout; eye 2.5 in snout and 1.21 in concave interorbital space. Teeth with denticulation on sides and tops of both jaws; two closely associate nostrils present just before eyes. Scales minute; 22 gill rakers on first arch. Single continuous dorsal fin origin above gill opening. First dorsal spines small, about 1/3<sup>rd</sup> of second dorsal spines; following spine gradually increasing in length; posterior part of soft dorsal rounded. First anal spine very small and the third one is the longest; soft part of anal rounded behind. Pectoral fins triangular, as long as snout and eye; ventral fins as long as snout. Caudal fin emerginate; there are small, Sharp, forward-pointing, erectile spine on each side of caudal peduncle.

*Colour:* Body light greenish grey above and white ventrally with five vertical darker bands first one from the nape through eye to chin; second from origin of dorsal to lower down to pectorals; third band runs from between 6<sup>th</sup> to 7<sup>th</sup> dorsal spines to middle of ventral fins; fourth from the soft dorsal to soft anal and fifth from the middle of soft dorsal to soft anal. A sixth band on caudal peduncle but it interrupted and contained as black blotch on caudal peduncle. Dorsal and anal fin with narrow dark subterminal band and a narrow white terminal band; anal fin dark in



Fig. *Acanthurus triostigus* collected from Chilika Lake

distal end; caudal fin grayish brown; pectoral fins white and ventral fins terminally dusky.

*Distribution:* From Indian coastal waters this species was reported from Andaman and Nicobar Island (Rao, 2004); Lakshadweep (Murty, 2002); Gulf of Manner (Varghese *et. al.*, 2011); Tamil Nadu (Krishnan *et. al.*, 2007); West Bengal (Das *et. al.*, 2007); Andhra Pradesh (Barman *et. al.*, 2004).

The present report forms the first record of its occurrence from the Chilika Lake as well as Odisha coast.

#### ACKNOWLEDGEMENT

Authors are thankful to Dr. K. Venkataraman, Director, Zoological Survey of India, for guidance and necessary facilities for the work.

#### REFERENCES

- Barman, R.P., Kar, S. and Mukherjee, P. 2004. Marine and estuaries fishes, *Fauna of Andhra Pradesh, State Fauna Series, 8* (Part - 2) (Mammals and Marine and Estuaries fishes). (Published by the Director, zoological Survey of India, Kolkata).
- Bhatta, K.S., Pattnaik, A.K. and Behera, B.P. 2001. Further contribution to the fish fauna of Chilika lagoon-A coastal wetland of Orissa. *Giobios*, **28**(2-3): 97-100.
- Chaudhuri, B.L. 1916a. Description of two new fishes from Chilika Lake. *Rec. Indian Mus.*, **12**(3): 97-100.
- Chaudhuri, B.L. 1916b. Fauna of Chilika Lake: Part I., *Mem. Indian Mus.*, **5** (4): 403-440.
- Chaudhuri, B.L. 1916c. Fauna of Chilika Lake: Part II., *Mem. Indian Mus.*, **5** (5): 441-458.
- Das, P., De, S.P., Bhowmik, R.M., Pandit, P.K., Sengupta, R., Nandi, A.C., Thakurta, S.C. and Saha, S. 2007. Piscine diversity of West Bengal. *Fishing Chimes*, **27** (5), 15-28.
- Jhingran, V.G. and Natarajan, A.V., 1966. Final Report on the Fisheries of the Chilika Lake (1957-1965), *Cent. Int. Fish Res. Inst. Bull No 8*: 1-12.
- Jhingran, V.G. and Natarajan, A.V., 1969. Study of the fishery and fish populations of the Chilika lake during the period 1957-65. *J. Inland Fish. Soc. India*, **1**: 47-126.
- Jones, S. and Sujansinghani, K. H., 1954. Fish and fisheries of Chilika lake with statistics of fish catches for the years 1948-1950. *Indian J. of Fish.*, **(1-2)** : 256-344.
- Hora, S. L., 1923. Fauna of Chilika Lake: Fish Part V., *Mem. Indian Mus.*, **5** (11):737-770.

- Kaumans, F. P., 1941. Goboid fishes of India, *Mem. Indian Mus.*, **13** (3): 205-313.
- Krishnan, S., Mishra, S.S. and Prabhakar, D., 2007. Fishes. In *Fauna of Chennai coasts, Marine Ecosystem series*, **1**:119-287.
- Menon, M.A.S., 1961. On a collection of fish from lake Chilika, Orissa. *Rec. Indian Mus*, **59** (1&2): 41-69.
- Misra, K.S., 1969. Pisces: *Fauna of India and adjacent countries*. Vol. I (2<sup>nd</sup> ed.), Manager publication, New Delhi, 276p.
- Misra, K.S., 1976a. Pisces: *Fauna of India and adjacent countries*. Vol. II (2<sup>nd</sup> ed.), Manager publication, New Delhi, 438p.
- Misra, K.S., 1976b. Pisces: *Fauna of India and adjacent countries*. Vol. III (2<sup>nd</sup> ed.), Manager publication, New Delhi, 367p.
- Mohanty, S.K., 1973. Further additions to the fish fauna of the Chilika lake, *J. Bombay nat. Hist. Soc.*, **72**(3): 863-866.
- Mohanty, R. K., Mohanty, S.K., Mohapatra, A., Bhatta, K.S. and Pattanaik, A.K., 2006. Post-ecorecovery impact on fish and shellfish biodiversity in Chilika lake, *Indian J. Fish.*, **53**(4): 397-407.
- Mohapatra, A., Mohanty, R. K., Mohanty, S. K., Bhatta, K. S. and Das, N.R., 2007. Fisheries enhancement and biodiversity assessment of fish prawn and mud crab in Chilika lagoon through hydrological intervention, *Wetlands Ecology and Management*, **15**: 229-252.
- Murty, V.S., 2002. Marine ornamental fish resources of Lakshadweep. *CMFRI Special Publication*, **72**: 1-134.
- Rajan, S., Pattanaik, S. and Bose, N. C., 1968. New records of fishes from Chilika lake, *J. zool. Soc. India*, **20**(1): 80-83.
- Rama Rao, K.V., 1995. Pisces. In: Ghosh AK (ed) *Fauna of Chilika Lake, Wetland Ecosystem Series*, **1**: 483-506.
- Rao, D.V., 2004. *Guide to reef Fishes of Andaman and Nicobar Islands*: 395-396 (Published Director, *zool. Surv. India.*, Kolkata).
- Talwar, P.K. and Jhingran, A. G., 1991. *Inland fishes of India and adjacent countries*. Oxford & IBH Publ Cp. New Delhi, vol. I & II, 1077pp.
- Wetland International-South Asia, 2011. *Integrated management planning for conservation and wise use of lake Chilika, India*. Technical report submitted to Ramsar Convention Secretariat. Wetland International-South Asia, New Delhi, India, pp. 129, XXXIV.
- Varghese, M., Manisseri, M. K., Ramamurthy, N., Geetha, P. M., Thomas, V. J. and Gandhi, A., 2011. A Coral reef fishes of Gulf of Mannar, S.E of India. *Fishing Chimes*, **31**(1): 38-40.