



First report on occurrence of a rare fish, Keeltail Pomfret: *Taractes rubescens* (Jordan and Evermann, 1887) from Northern part of East coast of India

Dipanjan Ray¹, Anil Mohapatra^{2*} and Swarup Ranjan Mohanty²

¹Bajkul Milani Mahavidyalaya, Kismat Bajkul, Purba Medinipur - 721655, West Bengal, India

²Estuarine Biology Regional Centre, Zoological Survey of India, Gopalpur-on-Sea, Ganjam - 761002, Odisha, India; anil2k7@gmail.com

Abstract

Authors collected one specimen of *Taractes rubescens* (Jordan and Evermann, 1887) of 655 mm. from Digha Mohana, West Bengal and reported as first occurrence of this species from Northern part of east coast of India as well as from the West Bengal coast.

Keywords: Bramidae, East Coast of India, First Report, West Bengal Coast

Introduction

Oceanic and marine fish of the family Bramidae contains 20 species under 7 genera (Nelson, 2006; Thompson, 2003). Most bramids are migratory, oceanodromus, pelagic, bathypelagic (*Eumegistus*) and benthopelagic marine fishes of warm and temperate waters of the Atlantic, Indian and Pacific Oceans. Bramids are excellent food fishes and undergo remarkable changes in body shape and fin during development (Mead, 1972; Haedrich, 1986; Thompson and Russel, 1996).

From Indian waters three species of Bramidae were reported (Gopi and Mishra, 2015). There was no previous record of presence of Bramidae from east coast of India, though Balachandran and Nizar (1990) recorded occurrence of *Brama dussumieri* Cuvier from the Bay of Bengal (7°00' - 13°30'N, 83° - 90°E). This paper first reports the occurrence of the keeltail pomfret *Taractes rubescens* (Jordan and Evermann, 1887) from West Bengal, east coast of India for the first time.

Material and Methods

Single specimen of *Taractes rubescens* (Jordan and Evermann, 1887) was collected from fish landing centre

at Digha Mohona (21°37.843'N, 87°32.827'E). The specimen was identified following key from Thompson and Russel, 1996. The detail morphometric measurements were taken in the field and the specimens were preserved in 10% formalin after taking the fresh photographs. The specimen is deposited in the museum of Marine Aquarium and Regional Center of Zoological Survey of India, Digha (Regn. No. MARC/ZSI/F4628).

Result

Taractes rubescens (Jordan and Evermann, 1887)

1887. *Steinigeria rubescens* Jordan and Evermann, *Proc U. S. Nat. Mus.*, 9(586): 466-476.

Characters: Dorsal fin rays 30; Anal fin rays 21; Pectoral fin rays 20 and pelvic fin with I spine and 5 rays. Body ovate and compressed with pointed snout (Figure 1). Dorsal profile of head straight and covered with scales; snout short; interorbital space flat with ridges and equals to eye diameter. Forehead slightly concave; mouth oblique, lower jaw projecting; maxilla broad and scaly, reaches vertically to the posterior border of eyes. Jaws with small bands of cardiform teeth arranged in 3-4 rows,

* Author for correspondence



Figure 1. *Taractes rubescens* (Jordan and Evermann, 1887).

palatine teeth in villiform bands but no teeth on vomer. Cheeks, opercle covered with scales; preopercle finely serrated. Body covered with cycloid scales; single, long base dorsal and anal fin anteriorly fulcate; pectoral fin very large reach up to middle of the anal fin; caudal fin lunate; auxillary scales present on the base of pectoral fin. Caudal peduncle with well developed groove and strong lateral keel. Gill rakers stout and widely interspaced, lower part with 9 developed gill rakers and 7 rudimentary and upper part with 2 developed and 5 rudimentary gill rakers. Lateral line inconspicuous; lower jaws with pores. The details of morphometry are given in Table 1 with a comparative account with the same species reported from different parts of the globe.

Colour: Body blackish brown, belly comparatively pale; posterior margin of caudal fin whitish, other fins dark.

Distribution: Pacific, Atlantic and Indian Ocean. Hawaii, Costa Rica, Peru, West Africa, Azores and Madeira Islands, Gulf of Mexico, Trinidad, Brazil, Oman, Gulf of Aden and Arabian Sea (Froses and Pauly, 2017; Jawad et al., 2014; Ali and McNoon, 2010; Carvalho-Filho et al., 2009) and Canary Island in Northern Atlantic Ocean (

Gonzalez-Lorenzo et al., 2013) . From Indian waters this species was reported from Andaman and Nicobar Island (Luther, 1966) and very recently reported from Cochin fishing harbour, Kerala (Roul et al., 2017). Present paper first time reports this species from West Bengal, northern part of east coast of India.

Discussion

Taractes rubescens (Jordan and Evermann, 1887) is an offshore pelagic species ranging from the surface to about 600 m depth, apparently solitary and often captured at night (Thompson and Russell, 1996). This species can easily be identified and distinguished from other members of Bramidae by having caudal peduncular keel and distinct colour pattern. This species widely distributed in tropical waters of Pacific and Atlantic Oceans but fewer occurrences in Indian Ocean. Luther (1966) first reported this species from Andaman and Nicobar Islands. In the recent past, it is reported by Ali and McNoon (2010) and Jawad et al. (2014) from Gulf of Aden and Oman Sea respectively. Recently the species is reported from South-Eastern Arabian sea (Roul et al., 2017). This is the fifth time report of *Taractes rubescens* (Jordan and Evermann,

Table 1. Morphometric characteristics of *Taractes rubescens* (Jordan and Evermann, 1887) with a comparison with the same species from different regions

Morphometric characters (mm)	Luther, 1966 (n=1)	Merd, 1972 (n=1)	Merd, 1972 (n=1)	Thompson and Russel, 1996 (n=22)	Puentes et al., 2001 (n=1)	Ali and McNoon, 2010 (n=34)	Gonzalez-Lorenzo, et al., 2013 (n=3)	Jawad, et al., 2014 (n=1)	Present study, 2017 (n=1)
Location	Andaman and Nicobar Island	Gulf of Mexico	West Pacific	Gulf of Mexico	Columbian Pacific	Gulf of Aden	Canary Island	Oman Sea	West Bengal, India
Total Length (TL)						803-950		890	655
Standard Length (SL)	618	620	690	305-32.8	430	680-780	599-772	685	518
In % of SL									
Head Length	30.74	30.2	30.8	28-32.8	34.7		28.1-29.9	35	34.74
Eye Diameter	7.44	6.8	5.5	5.2-6.8	7.4		5.3-6.5		6.94
Inter Orbital Length	8.41								10.42
Snout Length	6.63								7.72
Pectoral Fin Length	38.03	38.2	39.7	32.1-41.7	43		33.9-34.9		34.74
Pelvic fin length		9.7	11.2	12.4-15.6	17.7		13.1-14.4		
Anal Fin Length								22	25.09
Ventral fin length	13.59								14.1
Predorsal Length	38.35	41.6	38.8	38.1-44.7	45.3		34.9-37		39.18
Pre-anal Length	61.65	61.3	63	30.8-67.2	67.4		49.7-50.1		63.70
Prepectoral Length		31.4	34.1	28.5-32.1	34.9		29.2-32.3		
Prepelvic Length		35.2	39.1	31.6-37.5	37.2		28.4-33.3		
Pre-anus Length									56.37
Body Depth	39.32	39.5	38.4	35.8-41.2	44.2		33.9-41.3		41.31
Upper Jaw Length									17.37
Caudal Peduncle length				15.3-19.8	7.4		10-10.9	13	12.6
Caudal Peduncle depth		6.1	7	5.9-7	7.9		6-6.8		6.9
In % of Head Length									
Eye Diameter						16.7-19.1		17	18.8
Inter-orbital Space									30
Snout									22.22
Pre-orbital length						23.5-30		29	30.55
Post-orbital Length						51-55.5		46	51.11
Upper Jaw Length								44	50

1887) from Indian Ocean and first report from Northern part of Bay of Bengal. Present study indicates lacking of adequate and comprehensive sampling program around the areas and demands more comprehensive study which is very essential for conservation aspects of such a rare species.

Acknowledgement

Authors are thankful to Dr. Kailash Chandra, Director, Zoological Survey of India, Kolkata for providing necessary facilities for the work.

References

- Ali, A.M. and McNoon, A.H. 2010. Additions to benthopelagic fish fauna of the Aden Gulf-Arabian Sea (Actinopterygii: Bramidae and Sternoptychidae). *J. Fish. Aquat. Sci.*, **5**(1): 23-32.
- Balachandran, K. and Nizar, M.A. 1990. A checklist of fishes of the Exclusive Economic Zone of India collected during the research cruises of FORV Sagar Sampada, *Proc. First Workshop Scient. Result. FORV Sagar Sampada*, 5-7 June, 1989: 305-324.
- Carvalho-Filho, A., Marcovaldi, G., Sampaio, C.L.A., Paiva, M.I-G. and Duarte, L.A.G. 2009. First report of rare pomfrets (Teleostei: Bramidae) from Brazilian waters, with a key to Western Atlantic species. *Zootaxa*, **2290**: 1-26.
- Froese R. and Pauly D. (eds) (2017) FishBase. World Wide Web electronic publication. Available from: www.fishbase.org
- Gonzalez-Lorenzo, G., González-Jiménez, J.F., Brito, A. and González, J.A. 2013. The family Bramidae (Perciformes) from the Canary Islands (Northeastern Atlantic Ocean), with three new records. *Cybium*, **37**(4): 295-303.
- Gopi, K.C. and Mishra, S.S. 2015. Diversity of Marine Fish of India, pp. 171-193. In: Venkataraman K. & C. Sivaperuman (eds.). *Marine Faunal Diversity in India. Taxonomy, Ecology and Conservation*. Elsevier Publ., Amsterdam.
- Haedrich, R.L. 1986. Bramidae. In: Whitehead, P.J.P., Bauchot, M.-L., Hureau, J.-C., Nielsen, J. and Tortonese, E. (Eds.), *Fishes of the North-eastern Atlantic and the Mediterranean*, UNESCO, Paris, **1473** p. Volume 2, pp. 847-853.
- Jawad, L.A., Al-Mamry, J. and Al-Busaldi, H.K. 2014. New record of the keeltail pomfret, *Taractes rubescens* (Jordan & Evermann, 1887) (Perciformes: Bramidae) from the Sea of Oman, *International Journal of Marine Science*, **25**(4) 227-230 (DOI: 10.5376/ijms.2014.04.0025).
- Luther, G. 1966. On the occurrence of *Steinegeria rubescens* Jordan and Evermann (Bramidae: Pisces) in the Indian Ocean.
- Mead, G.W. 1972. Bramidae Copenhagen. Denmark, Dana-Report, 81, Calsberg Foundation. 166+9 plates, pp. 437.
- Nelson, J.S. 2006. *Fishes of the World* (4th Ed.): 1-601, Published by John Wiley & Sons, Inc., Hoboken, New Jersey. *Publicaciones Especiales. Instituto Español de Oceanografía*, **21**: 185-198.
- Roul, S.K., Rethesh T.B., Akhil, A.R., Prakasan, D., Ganga, U., Abdussamad, E.M., Rohit, P. 2017. First Record of the Keeltail Pomfret *Taractes rubescens* (Jordan and Evermann, 1887) (Teleostei: Perciformes: Bramidae) from the South-Eastern Arabian Sea, *Thalassas*. <https://doi.org/10.1007/s41208-017-0041-2>
- Thompson B.A., 2003. Bramidae (pp. 1469-1427), Percophidae (pp. 1744-1745). In: Carpenter, K. E. (ed.) 2003. , The living marine resources of the Western Central Atlantic. Volume 3: Bony fishes part 2 (Opistognathidae to Molidae). FAO species identification guide for fishery purposes and American Society of Ichthyologist and Herpetologists Special Publication No. 5. FAO, Rome. v. 3: i-vi + 1375-2127.
- Thompson, B.A. and Russell, S.J. 1996. Pomfrets (family Bramidae) of the Gulf of Mexico and nearby waters.