

fins yellow. After preservation, dorsa pale brown, flank pale yellow, and fins remain yellow.

Distribution: Irravadi river (Myanmar); Poonpun river, Patna, Ganga, Brahmaputra drainage, Mahanadi river (Menon 1999), Mondai stream in Maharashtra (Arunachalam *et al.* 1999), Manjal stream in Kerala; (Gaganachukki bluff) Sivasamudram (Gaganachukki bluff) in Karnataka, Bhavani (Pillur) and Moyar rivers in Tamil Nadu.

Remarks: *Salmostoma sardinella* prefers closed riparian cover except in Sivasamudram Falls; the habitat parameters are given in Table 2. Though the extension range covers Tamil Nadu, Kerala and Karnataka parts of the Western Ghats, the distribution of *Salmostoma sardinella* is still confined to the tributaries of Cauvery basin originating from these three states.

ACKNOWLEDGEMENTS

Senior author (M. Arunachalam) is grateful for financial assistance from NATP under the mission mode programme of Germplasm Inventory and Gene banking of Freshwater

Table 2: Habitat features of four streams

Parameters	Manjal	Sivasumdrum	Gugalthurai (Moyar)	Pillur (Bhavani)
Riparian cover (%)	60	Open	30	41.5
Mean width (m)	9.8	200	19.4	63.46
Depth (cm)	56.5	130	54.6	62
Flow (m/sec.)	0.22	0.64	0.06	0.44
Bedrock (%)	15	90	20	10
Boulders (%)	45	5	60	5
Cobbles (%)	12.5	5	10	10
Gravel (%)	22.5	-	6	-
Sand (%)	2.5	-	4	72.5
Leaf litter (%)	2.5	-	-	2.5

Fishes. We also thank the Mission Leader and Director Dr. D. Kapoor and Dr. S.P. Singh, Principal Investigator of the Lead Centre, National Bureau of Fish Genetic Resources, Lucknow for their leadership in this programme. We thank Sri. S.K. Chakrabarti, Principal Chief Conservator of Forests, Karnataka and the Chief Wildlife Warden (Wildlife) Kerala for official permission.

REFERENCES

- ARUNACHALAM, M., A. SANKARANARAYANAN, A. MANIMEKALAN, R. SORANAM & J.A. JOHNSON (1999): New record of *Salmostoma sardinella* (Pisces: Cyprinidae) from Mondai stream, Maharashtra. *J. Bombay Nat. Hist. Soc.* 96(1): 162-163.
- DAY, F. (1875-78): The Fishes of India: being a Natural History of the fishes known to inhabit the seas and fresh waters of India, Burma and Ceylon. London, Indian Reprint by Jagminder Book Agency, New Delhi. xx + 778 pp., 195 plates.
- JAYARAM, K.C. (1999): The Freshwater Fishes of the Indian region. Narendra Publishing House, Delhi, 551 pp.
- MENON, A.G.K. (1999): Checklist – Freshwater fish of India, Rec. 201. Zoological Survey of India, Occ. Pap No. 175. 366 pp.
- TALWAR, P.K. & A.G. JHINGRAN (1991): Inland Fishes of India and Adjacent Countries. Oxford and IBH publishers. Co. Pvt. Ltd., New Delhi, pp. 1058.
- VALENCIENNES, A. (1842): *Hist. Nat. Poiss.* 17: 334.

17. ON A RECORD OF A YOUNG TERATOID *CARCHARHINUS HEMIODON*¹

A. JESU AROCKIA RAJ², S. SEETHARAMAN^{3,4} AND M.A. HANIFFA^{3,5}

¹Accepted July 11, 2005

²The Bengis Centre for Desert Aquaculture, The Albert Katz Department of Dryland Biotechnologies, The Jacob Blaustein Institute for Desert Research, Ben-Gurion University of the Negev Sede Boker Campus 84990, Israel. Email: murrelvtl@gmail.com

³Centre for Aquaculture Research and Extension (CARE), St. Xavier's College (Autonomous), Palayamkottai 627 002, Tamil Nadu, India.

⁴Email: ramseetha2005@yahoo.com

⁵Email: rat_team@hotmail.com

The 'vulnerable' *Carcharhinus hemiodon* (Compagno *et al.* 2003) is one of the 30 species of Family Carcharhinidae (Class: Elasmobranchii, Order: Carcharhiniformes). Commonly called the Pondicherry Shark, and locally 'Palsura', it is distributed in the Indo-West Pacific: Gulf of Oman to Pakistan, India, Sri Lanka and scattered localities in the eastern Indian Ocean and western Pacific Ocean. It attains

a maximum size of up to 200 cm total length, and is viviparous and harmless. Carnivorous in nature it preferably feeds on small fishes, crustaceans and cephalopods (Compagno and Niem 1998). It fetches high commercial and market value due to its tasty flesh and oil content.

C. hemiodon (length 1.45 m and weight 3.5 kg) was caught during September 2004 using trawl net from the coastal

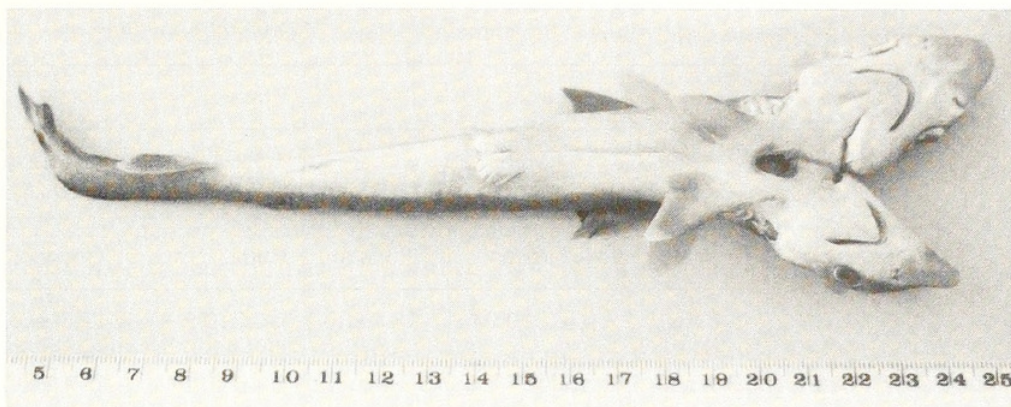


Fig.1: *C. hemiodon* ventral side

region of Kanyakumari region (Tamil Nadu, India). When the fish was dissected for research purpose we found four young ones inside the uterus, along with placenta. Among the four young ones, three were normal (length 25-27 cm and weight 150-200 gm), and one was abnormal, with two heads (bifurcated head) and a single body. The total length of the teratoid individual was 20.6 cm on the right side and 20.0 cm on the left side of the head regions and weight was 104.3 gm. Morphologically when the neural fold deviated during the early development it formed two heads with a single body (Fig. 1). The deformed individual had a separate placenta connected to the uterus. There was no morphometric and meristic difference between the normal and abnormal individual except the teratoid trait. The right and left head measurements were 5.5 cm and 4.8 cm respectively. It was observed that it possessed only one pair of pectoral fins (one

behind each head), on the ventral side, and two dorsal fins (one behind each head) instead of a single dorsal fin. This abnormal individual showed an underdeveloped snout and mouthparts on one head (left head) while the other head, had its mouthparts normally developed. Since the specimen was rare it was not dissected for further study and was preserved in 4% formalin, and kept in our department museum.

ACKNOWLEDGEMENTS

Our special thanks are due to Mr. and Mrs. L. Antony Rayappan, Srivaikundam, for providing the samples for research. We gratefully acknowledge Rev. Fr. A. Antonysamy, S.J., Principal and M. Thomas Punithan, HoD, Department of Zoology, St. Xavier's College, for providing the necessary facilities.

REFERENCES

- COMPAGNO, L.J.V. & V.H. NIEM (1998): Carcharhinidae. Requiem Sharks. Pp. 1312-1360. In: Carpenter, K.E. and V.H. Niem (Eds.): FAO Identification Guide for Fishery purposes. The Living Marine Resources of the Western Central Pacific. FAO, Rome.
- COMPAGNO, L.J.V., W. WHITE & S. FOWLER (2003): *Carcharhinus hemiodon*. IUCN 2004. 2004 IUCN Red List of Threatened Species.

18. NOTES ON THE BEHAVIOUR OF SOME DUNG BEETLES IN AND AROUND BANGALORE¹

K. VEENAKUMARI² AND G.K. VEERESH³

¹ Accepted May 04, 2005

²Project Directorate of Biological Control, P.B. No. 2491, H.A. Farm Hebbal, Bellary Road, Bengaluru 560 024, Karnataka, India.
Email: veenapmraj@rediffmail.com

³University of Agricultural Sciences, G.K.V.K. Bengaluru 560 065, Karnataka, India.

On the basis of dung utilization behaviour Heinrich and Bartholomew (1979) classify Coprophagous beetles into three groups: (i) those that feed and breed in dung pats (endocoprids) (ii) those that tunnel into soil, pack dung to subsequently feed and breed in it (paracoprids) and (iii) those that roll dung away from the dung pat which is further used

for both feeding as well as breeding (telecoprids). Hitherto unknown details of dung utilization in two dung buriers, namely *Helicopris bucephalus* (Fabricius) and *Onthophagus duporti* Boucomont, as well as two dung rollers, namely *Scarabaeus (Khepher) sanctus* (Fabricius) and *Sisyphus hirtus* Weidemann, are detailed below.



Raj, A Jesu Arockia, Seetharaman, S, and Haniffa, M A. 2007. "On a Record of a Young Teratoid Carcharhinus Hemiodon." *The journal of the Bombay Natural History Society* 104, 360–361.

View This Item Online: <https://www.biodiversitylibrary.org/item/188336>

Permalink: <https://www.biodiversitylibrary.org/partpdf/154677>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.