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A new species of *Neolebouria* Gibson, 1976 (Opecoelidae: Plagioporinae) from the whitecheek monocle bream, *Scolopsis vosmeri* (Perciformes: Nemipteridae), from the Panjim coast at Goa, with a checklist of parasites previously reported from this fish

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Abstract

Neolebouria capoori **n. sp.** (Opecoelidae: Plagioporinae) is described from the whitecheek monocle bream, *Scolopsis vosmeri* (Bloch) (Perciformes: Nemipteridae) from the Panjim coast on the central west coast of India at Goa. The new species differs from both *Neolebouria cantherhini* (Li, Qiu & Zhang, 1988) as originally described from *Thamnaconus modestus* (Günther) (syn. *Cantherines modestus* Günther) and *Neolebouria confusum* (Overstreet, 1969) as originally described from *Ocyurus chrysurus* (Bloch) by having the cirrus sac surpassing the ventral sucker posteriorly in *N. cantherhini* and being entirely preacetabular in *N. confusum* compared to terminating near the midlevel of the ventral sucker in *N. capoori* **n. sp.** The new species is most similar to *N. confusum*, but it further differs from this species by having the vitelline fields terminating near the level of the esophageal bifurcation compared to terminating near the level of the posterior margin of the pharynx, a larger sucker ratio (1:1.7–1:2.0 compared to 1:1.4–1:1.7), a somewhat shorter cirrus sac relative to body length (160–448, representing 9–18% of the body length compared to about 367, representing 22%), and the egg of the new species has a boss at the anopercular end that is not present in *N. confusum*. This study represents the first report on an opecoelid from *S. vosmeri.* A review of the parasites reported from *S. vosmeri* is included.

Key words: Arabian Sea, Nemipteridae, *Neolebouria capoori* **n. sp.**, Opecoelidae, *Scolopsis vosmeri*, West coast of India

Introduction

Neolebouria Gibson, 1976 is a plagioporine opecoelid genus erected by Gibson (1976) for species possessing an irregularly lobed ovary and vitellaria which are confluent dorsally within the forebody. This genus was established to describe *Neolebouria georgiensis* Gibson, 1976 collected from the intestine, stomach and rectum of the Antarctic dragonfish, *Parachaenichthys georgianus* (Fischer), and the blackfin icefish, *Chaenocephalus aceratus* (Lönnberg), from off the southern coast of Argentina in the islands of South Georgia (Gibson 1976). At the time, the taxonomic position of *N. georgiensis* was ambiguous as it possessed an ovary with "three poorly defined, posteriorly directed lobes" (like species of *Podocotyle* Dujardin, 1845) but also vitellaria that were confluent in the forebody (like species of *Plagioporus* Stafford, 1904). To solve this dilemma, Gibson (1976) defined the three genera in the following manner: *Podocotyle* species have a lobed (usually tri-lobed) ovary and possess vitellaria which are not confluent dorsally anterior to the gonads (and rarely present anterior to the ventral sucker); *Plagioporus* species have a distinctly round or oval ovary and possess vitellaria which are confluent in the forebody; and *Neolebouria* species have an irregularly lobed ovary with vitellaria confluent dorsally within the

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References

Ahmad, J. (1984) Digenetic trematodes from marine fishes from the Arabian Sea, off the Bombay coast, India. On four new species of the genus *Retractomonorchis* Madhavi, 1977 (Digenea: Monorchiidae). *Rivista di Parassitologia*, 45, 19–28.

Aken'Ova, T.O.L. & Cribb, T.H. (2001) Two new species of *Neolebouria* Gibson, 1976 (Digenea: Opecoelidae) from temperate marine fishes of Australia. *Systematic Parasitology*, 49, 65–71.
http://dx.doi.org/10.1023/a:1010660402482

Allison, F.R. (1966) A new species of adult Allocreadiidae (Trematoda) from *Octopus maorum* Hutton. *Records of the Canterbury Museum*, 8, 81–85.

Bray, R.A. (2002) Three species of plagioporine opecoelids (Digenea), including a new genus and two new species, from marine fishes from off the coast of Chile. *Systematic Parasitology*, 51, 227–236.
http://dx.doi.org/10.1023/a:1014561813103

Bray, R.A. & Gibson, D.I. (1995) The Lepocreadiidae (Digenea) of fishes from the north-east Atlantic: a review of the genus *Lepidapedon* Stafford, 1904. *Systematic Parasitology*, 31, 81–132.
http://dx.doi.org/10.1007/bf02185544

Bray, R.A. & Justine, J.-L. (2009a) Opecoelids (Platyhelminthes: Digenea) from the fork-tailed threadfin bream *Nemipterus furcosus* (Valenciennes, 1830) (Perciformes, Nemipteridae), with preliminary keys to the problematic genera *Macvicaria* Gibson et Bray, 1982 and *Neolebouria* Gibson, 1976. *Acta Parasitologica*, 54, 218–229.
http://dx.doi.org/10.2478/s11686-009-0041-3

Bray, R.A. & Justine, J.-L. (2009b) *Neolebouria blatta* n. sp. (Digenea: Opecoelidae) from *Pristipomoides argyrogrammicus* (Valenciennes) and *Etelis carbunculus* Cuvier (Perciformes: Lutjanidae) off New Caledonia. *Systematic Parasitology*, 74, 161–167.
http://dx.doi.org/10.1007/s11230-009-9215-5

Cao, H., Tang, C.-T. & Tang, Z.-Z. (1990) Some digenetic trematodes of marine fishes from Fujian, China. *Bulletin de la Societe Francaise de Parasitologie, ICOPA VII*, Supplement, 8, 290. [Abstract]

Chao, D. (1985) Survey of *Anisakis* larvae in marine fish in Taiwan. *International Journal of Zoonoses*, 12, 233–237.

Cribb, T.H. (2005) Family Opecoelidae Ozaki, 1925. *In:* Jones, A., Bray, R.A. & Gibson, D.I. (Eds.), *Keys to the Trematoda. Vol 2*. CABI Publishing and the Natural History Museum, Wallingford, pp. 443–531.

Froese, R. & Pauly, D. (2013) *FishBase*. World Wide Web electronic publication. Available from: http://www.fishbase.org (accessed 13 February 2014)

Gibson, D.I. (1976) Monogenea and Digenea from fishes. *Discovery Reports*, 36, 179–266.

Gibson, D.I. & Bray, R.A. (1982) A study and reorganization of *Plagioporus* Stafford, 1904 (Digenea: Opecoelidae) and related genera, with special reference to forms from European Atlantic waters. *Journal of Natural History*, 16, 529–559.

Gupta, N.K. (1956) Studies on the digenetic trematodes of marine fishes from the Gulf of Manaar (India). *Research Bulletin of the Panjab University of Science (Zoology)*, 89, 61–83.

Hafeezullah, M. & Siddiqi, A.H. (1970) Digenetic trematodes of marine fishes of India. Part II. Fellodistomatidae. *Journal of Parasitology*, 56, 932–940.
http://dx.doi.org/10.2307/3277509

Ho, J.-S. & Lin, C.-L. (2003) Solution to the taxonomic confusion surrounding *Caligus epinepheli* Yamaguti, a caligid copepod (Siphonostomatoida) parasitic on marine fishes. *Zoological Studies*, 42, 268–283.

Ho, J.-S., Lin, C.-L. & Chen, S.-N. (2000) Species of *Caligus* Muller, 1785 (Copepoda: Caligidae) parasitic on marine fishes of Taiwan. *Systematic Parasitology*, 46, 159–179.

Li, Q.-K., Qiu, Z.-Z. & Zhang, R.-S. (1988) Digenetic trematodes of fishes from the Bo-Hai Sea, China. V. (Trematoda: Opecoelidae). *Acta Zootaxonomica Sinica*, 13, 329–336. [in Chinese]

Linton, E. (1940) Trematodes from fishes mainly from the Woods Hole region, Massachusetts. *Proceedings of the United States National Museum*, 88, 1–172.
http://dx.doi.org/10.5479/si.00963801.88-3078.1

Machida, M. (2004) Four new species of digenean trematodes from wrasses of southern Japan and neighboring waters. *Bulletin of the National Science Museum*, Series A, 30, 105–111.

Machida, M. & Araki, J. (2002) Three new species of digenean trematodes found in deep-sea fishes of Japan and adjacent waters. *Bulletin of the National Science Museum*, Series A, 24, 195–200.

Madhavi, R. (2008) Family Monorchchiidae Odhner, 1911. *In:* Bray, R.A, Gibson, D.I. & Jones, A. (Eds.), *Keys to the Trematoda. Vol 3*. CABI Publishing and the Natural History Museum, London, UK, pp. 145–175.

Nagaty, H.F. & Abdel Aal, T.M. (1962) Trematodes of fishes from the Red Sea. Part 15. Four new species of *Hamacreadium* family Allocreadiidae. *Journal of Parasitology*, 48, 384–386.
http://dx.doi.org/10.2307/3275200

Overstreet, R.M. (1969) Digenetic trematodes of marine teleost fishes from Biscayne Bay, Florida. *Tulane Studies in Zoology and Botany*, 15, 119–176.

Price, E.W. (1934) New digenetic trematodes from marine fishes. *Smithsonian Miscellaneous Collections*, 91, 1–8.

Szidat, L. & Graefe, G. (1967) Estudios sôbre la fauna de parásitos de peces Antarticos. II. Los parásitos de *Parachaenichthys charcoti*. *Servicio de Hidrografía Naval de la Secretaría de la Rep. Argentina*, Público H 911, 4–27.

Thompson, A.B. & Margolis, L. (1987) Descriptions of *Neolebouria tinkerbellae* n. sp. (Trematoda: Digenea: Opecoelidae) from experimental fish hosts, and of metacercariae of *N. tinkerbellae* and an unidentified digenean from *Pandalus jordani* (Decapoda: Penaeidae) from the Pacific coast of Canada. *Canadian Journal of Zoology*, 65, 188–193. http://dx.doi.org/10.1139/z87-027

Wang, Y.-Y., Wang, P.-Q. & Zhang, W.-H. (1992) Opecoelid trematodes of marine fishes from Fujian Province. *Wuyi Science Journal*, 9, 67–89. [in Chinese]

Yamaguti, S. (1934) Studies on the helminth fauna of Japan. Part 2. Trematodes of fishes, I. *Japanese Journal of Zoology*, 5, 249–541.

Yamaguti, S. (1940) Studies on the helminth fauna of Japan. Part 31. Trematodes of fishes, VII. *Japanese Journal of Zoology*, 9, 35–108.

Yamaguti, S. (1951) Studies on the helminth fauna of Japan. Part 44. Trematodes of fishes, IX. *Arbeiten aus der Medizinischen Fakultät Okayama*, 7, 247–282.

Yamaguti, S. (1970) *Digenetic Trematodes of Hawaiian Fishes*, Keigaku Publishing Company, Tokyo, Japan, 436 pp.

Yamaguti, S. (1971) *Synopsis of Digenetic Trematodes of Vertebrates. Vol. I*. Keigaku Publishing Company, Tokyo, Japan, 1,074.

Zdzitowiecki, K., Pisano, E. & Vacchi, M. (1993) Antarctic representatives of the genus *Neolebouria* Gibson, 1976 (Digenea, Opecoelidae), with description of one new species. *Acta Parasitologica*, 38, 11–14.

Zhang, J.Y., Yang, T.B. & Liu, L. (2001) *Monogeneans of Chinese Marine Fishes*, Agricultural Press, Beijing, China, 400 pp.

Zhang, J.Y., Yang, T.B., Liu, L. & Ding, X. (2003) A list of monogeneans from Chinese marine fishes. *Systematic Parasitology*, 54 (2), 111–130. http://dx.doi.org/10.1023/a:1022581523683