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ON SOME ADDITIONAL RECORDS OF FISH FROM ANDHRA PRADESH, INDIA

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INTRODUCTION

Recent surveys of Chittoor and Nellore districts of Andhra Pradesh by the Southern Regional Station, Zoological Survey of India teams, led by Dr. M.B. Raghunathan and Dr. O.P. Srivastava during 2002–2004 revealed some interesting fish species including two introduced species which turned out to be new reports for the area. A systematic list is provided following Talwar & Jhingran (1991), Jayaram (1999) and Menon (1999) along with relevant remarks. River Pennar drains the two districts Chittoor and Nellore. A recent exhaustive report on the fish fauna of Andhra Pradesh by Barman (1993) does not include the 10 species listed here. Of these 9 are new records to Andhra Pradesh and are marked by an asterix.

Order CLUPEIFORMES

Family CLUPEIDAE

Subfamily PELLONULINAE

*1. *Ehirava fluviatilis* Deraniyagala

1929. *Ehirava fluviatilis* Deraniyagala, *Spoila Zeylan.*, 15 : 35, pl. 14. (Type locality : Western Province of Sri Lanka)

1991. *Ehirava fluviatilis*, Talwar and Jhingran, *Inland Fishes of India and Adjacent Countries*, Vol. 1 : 115-116.

Material : 7 exs., 21.0–34.0 mm SL., F.7143, Venad, Pulicat Lake, 12.01.2003, M.B. Raghunathan; 3 exs., 22.0–27.0 mm SL., F.7218, Pulicat Lake, 12.01.2003, M.B. Raghunathan; and 138 exs., 21.0–29.0 mm SL., F.7569, Buchinayudu Kandriga, 16.10.2003, M.B. Raghunathan.

Diagnostic features : D. ii/10-11; A. iii/12; P. i/11-13; V. i/7; L.1. 36; Predorsal scales 14–15, Gill rakers 24 + 10.

A small, slender, pale yellow fish with a faint stripe along the sides; scales deciduous. Pelvic origin behind dorsal origin.

Distribution : Costal waters of southern India and Sri Lanka.

Remarks : The species thought to be endemic to Sri Lanka has been recorded from the coastal waters of south west India (Whitehead, 1984). Pethiyagoda (1991) remarks that it has been recorded from the Malabar coast of India and Western Sri Lanka and that its occurrence on the eastern coastal seas has not yet been recorded. This is the first report of the species from the east coast of India.

Order CYPRINIFORMES

Family CYPRINIDAE

Subfamily LEUCISCINAE

*2. *Aristichthys nobilis* (Richardson)

1844. *Leuciscus nobilis* Richardson, *Voy. H.M.S. "Sulphur"* : 140, Pl. 63, fig. 3. (Type locality : Canton, China)
1991. *Hypophthalmichthys nobilis*, Talwar and Jhingran, *Inland Fishes of India and Adjacent Countries*, No. 1 : 332-333.
1999. *Aristichthys nobilis*, Rohan Pethiyagoda, *Freshwater Fishes of Sri Lanka*, p. 57.

Material : 1 ex., 120.0 mm SL., F.7489, Maraparakandriya, Chittoor district, Sriharikota, 24.02.2004, O. P. Srivastava.

Diagnostic features : D. iii/7; A. iii/11; P. i/19; V. I/7.

A silvery fish with a compressed body and with small eyes placed in the lower half of head. Similar to *Hypophthalmichthys molitrix* from which it is clearly distinguished by its pectoral fins extending well beyond the origin of the pelvics. Gill rakers separated (free) and slender vs. gill rakers continuous forming a crescentic horny membrane.

Distribution : Southern and Central China. Transplanted to North China, Japan, Taiwan, Vietnam, Thailand, Malaysia, Sri Lanka, Bangladesh and India.

Remarks : According to Alikunhi *et al.*, (1963) this species had been accidentally introduced into Indian waters along with silver carp fry. However, there were doubts regarding its introduction to India. The present collection of the species in the wild confirms its establishment in Indian waters.

*3. *Esomus thermoicos* (Valenciennes)

1842. *Nuria thermoicos* Valenciennes, *Hist. nat. Poiss.*, 16 : 238, Pl. 472. (Type locality : Hot springs at Kanniya, Sri Lanka)

1991. *Esomus thermoicos*, Talwar and Jhingran, *Inland Fishes of India and Adjacent Countries*, Vol. 1 : 378-379.

1999. *Esomus thermoicos*, Jayaram, *The Freshwater Fishes of the Indian Region*, p. 75.

Material : 1 ex., 25.0 mm SL., F.7165, Kadevedu, Nellore district, 18.09.2002, O. P. Srivastava; 5 exs., 48.0–64.0 mm SL., F.7222, Nellore, Kavali, 23.09.2002, O. P. Srivastava; 7 exs., 20–35 mm SL., F.7199, Udayagiri, 16.01.2003, M. B. Raghunathan; 1 ex., 32 mm SL., F.7119, Pellekuru, 23.01.2003, M. B. Raghunathan; 2 exs., 40–60 mm SL., F.7586, Yempedu, 14.10.2004, M. B. Raghunathan.

Diagnostic features : D. ii/6; A. ii/5; P. i/11; V. i/7; L.1. 34–35; Pd. 18–20; Gill rakers 22 (17 + 5).

L1. complete, extending upto caudal peduncle. Maxillary barbels extend to end of pelvic, mandibular to posterior border of eye. Outer rays of pectoral and pelvic fins gradually prolonged, outer pectoral rays reaching beyond pelvic origin. A bold lateral band on body, a black streak on dorsal surface.

Distribution : Sri Lanka and South India.

Remarks : This species earlier known only from Sri Lanka is now found to be widespread in South India, Jayaram (1999).

*4. *Rasbora labiosa* Mukerji

1935. *Rasbora labiosa* Mukerji, *Rec. Indian Mus.*, 37(3) : 376, figs. 1, 2. (Type locality : Deolali, Nasik district, Maharashtra)

1999. *Rasbora labiosa*, Jayaram, *The Freshwater Fishes of the India Region*, p. 83.

Material : 3 exs., 24.0–29.0 mm SL., F.7591, Etteri, 28.02.2004, O. P. Srivastava.

Diagnostic features : D. ii/7; P. i/11; V. i/8; A. ii/5; L.1. 33; P.d. 14.

Body elongate and compressed, mouth small, lower lip hypertrophied and projects beyond upper jaw. Lateral band faint. Dorsal-hypural distance when carried forward falling before posterior border of eye.

Distribution : India : Maharashtra, Karnataka and Andhra Pradesh.

Remarks : The species collected from Andhra Pradesh show some differences from the typical *R. labiosa* from Maharashtra. Similar specimens were also recently reported from Karnataka (Krishnan, *et al.*, 2004).

*5. *Puntius bimaculatus* (Blkr.)

1864. *Gnathopogon bimaculatus* Bleeker, *Verh. Nat. Holl. Maatsch. Haarlem*, 20(2) : 17, Pl. 4, fig. 1. (Type locality : Sri Lanka)

1991. *Puntius bimaculatus*, Talwar and Jhingran, *Inland Fishes of India and Adjacent Countries*, Vol. 1 : 259-260.

1999. *Puntius bimaculatus*, Jayaram, *The Freshwater Fishes of the Indian Region*, p. 110.

Material : 50 exs., 22.0–47.0 mm SL, F.7184, Mala palli, Chittoor, 9.9.2002, O. P. Srivastava; 2 exs., 35.0–40.0 mm SL, F.7226, Kavali, Nellore, 23.9.2002, O. P. Srivastava; 6 exs. 25.0–41.0 mm SL, F.7158, Vittalam, Chittoor, 10.9.2003, O. P. Srivastava; 2 exs., 19.0–22.0 mm SL, F.7554, Pulicat pond, 11.10.2003, M. B. Raghunathan; 1 ex., 49.0 mm SL, F.7589, Yempedu, 14.10.2003, M. B. Raghunathan; 2 exs., 24.0–26.0 mm SL, F.7246, Akkurti, Nellore, 25.1.2003, M. B. Raghunathan; 2 exs., 24.0 and 32.0 mm SL, F.7592, Etteri, Chittoor, 28.2.2004, O. P. Srivastava.

Diagnostic features : D. ii/7; A. iii/5; P. i/15; V. i/8; L.1. 24–25, P.d. 8–10; L. tr. $3\frac{1}{2}/2\frac{1}{2}-3\frac{1}{2}$.

One pair of barbels, shorter than eye diameter; last unbranched ray non-osseous, weak and smooth. Live colour-back olive green, flanks & belly silvery, a crimson lateral band. Black spot at the base of 3rd to 7th rays of dorsal fin, another black spot at the end of lateral line at the base of caudal fin.

Distribution : Sri Lanka and Southern India.

Remarks : Earlier said to be restricted to Sri Lanka, has subsequently been collected from Southern States of India (Rema Devi *et al.*, 2000; Shaji *et al.*, 2000 & Gopi, 2000).

*6. *Puntius fraseri* Hora and Misra

1938. *Barbus fraseri* Hora and Misra, *J. Bombay nat. Hist. Soc.*, 40(1) : 29, Pl. 3, fig. 2. and text fig. 4 (Type locality : Darna river at Deolali, Maharashtra)

1991. *Puntius fraseri*, Jayaram, *The Freshwater Fishes of the Indian Region*, p.112.

Material : 2 exs., 29.0–33.0 mm SL, F.7566, Pollur, 12.10.2003, M. B. Raghunathan; 39 exs., 13.0–20.0 mm SL, F.7200, Udayagiri, Nellore, 16.1.2003, M. B. Raghunathan; 3 exs., 30.0–32.0 mm SL, F.7496, Dachur, Nellore, 22.2.2004, O. P. Srivastava; 2 exs., 21.0–22.0 mm SL, F.7538, Parosalli, Kalahasthi, Chittoor, 26.2.2004, O. P. Srivastava.

Diagnostic features : D. ii/8; A. iii/5; P. i/11–12; V. i/8; L.1. 45–47; L. tr. $7-7\frac{1}{2}/6$; P.d. 15–16; Gill rakers 12+2.

Body fairly deep and compressed. One pair of well developed barbels. Lateral line incomplete ceasing after 12–13th scale. Last unbranched rays of dorsal and anal fins elongated in adult male. Yellowish olive with a silvery streak on flanks, a faint golden spot on occiput. A small spot at base of dorsal fin, outer margin of dorsal spine dark, a thin lateral band ending in a spot at caudal base.

Distribution : India : Maharashtra : Dharna River, Andhra Pradesh : Pennar River.

Remarks : This species has not been reported in the wild since 1956 (Singh, 1994). He placed the species under 'Red alert' A recent paper on fishes of Northern Western Ghats by Yadav (2003) does not include this species. The discovery of this species in the eastern part of India and in another river system, the Pennar in Andhra Pradesh, is of great ichthyological significance.

Order CYPRINODONTIFORMES

Family APLOCHEILIDAE

7. *Aplocheilus parvus* (Sundara Raj)

1916. *Panchax parvus* Sundara Raj, *Rec. Indian Mus.*, **12** : 268 (Type locality : Madras)

1999. *Aplocheilus parvus*, Menon, *Checklist, Freshwater fishes of India*, P. 269–270.

1999. *Aplocheilus parvus*, Jayaram, *The Freshwater Fishes of the Indian Region*, P. 343.

Material : 7 exs., 20.0–27.0 mm SL, F.7129, Dakkili, 20.1.2003, M. B. Raghunathan; 1 ex., 18.0 mm SL, F.7206, Udayagiri, 16.1.2003, M. B. Raghunathan; 1 ex., 17 mm SL, F. 7214, Venad, 12.1.2003, M. B. Raghunathan; 2 exs., 18.0–32.0 mm SL, F.7464, Nellore Dam, 9.10.2003, M. B. Raghunathan; 5 exs., 18.0–27.0 mm SL, F.7478, Kovur, 7.10.2003, M. B. Raghunathan; 13 exs., 16.0–23.0 mm SL, F. 7459, Saidapuram 22.ii.2004, O.P. Srivastava; 2 exs., 23.0–28.0 mm SL, F.7499, Dachur, 22.2.2004, O. P. Srivastava; 1 ex., 28.0 mm SL, F.7509, Venkatagiri, Sri Kalahasti, 25.2.2004. O. P. Srivastava; 3 exs., 16.0–22.0 mm SL, F.7516, Laxhmipuram, Kalahasti, 24.2.2004, O. P. Srivastava; 2 exs., 22.0–23.0 mm SL, F.7534, Empedu, Srikalahasti, 25.2.2004, O. P. Srivastava; 1 ex., 28.0 mm SL, F.7549, Rampur, 8.10.2003, M. B. Raghunathan; 11 exs., 16.0–24.0 mm SL, F.7561, Nellore Tank, 9.10.2003, M. B. Raghunathan; 1 ex., 25.0 mm SL, F.7580, Buchinayudu, Kandriga, 16.10.2003, M. B. Raghunathan.

Diagnostic features : D. ii/6; A. iii/11; P. 14; V 6; L.1. 26–29.

Body elongate and compressed posteriorly. In male posterior rays of dorsal and anal fins prolonged and extend to caudal. Faint vertical bands on the dorsal third of the body in preserved specimens; a black spot at base of dorsal fin.

Distribution : India : Peninsular India : Coromandel Coast. Sri Lanka.

Remarks : Though Talwar and Jhingran (1991) placed *parvus* as a junior synonym of *blocki*, both Menon (1999) and Jayaram (1999) treated them as distinct species. Menon (1999) included river Pennar in the distributional range of *parvus*. However, the same has been included in this paper as an addendum to the Fauna volume by Barman (1993).

Order PERCIFORMES

Family CICHLIDAE

*8. *Oreochromis niloticus* (Hasselquist)

1957. *Labrus niloticus* Hasselquist, *Iter.*, *Palae. t.*, : 346.

1999. *Oreochromis niloticus*, Rema Devi and Raghunathan, Report on the Ichthyofauna of North Arcot District Tamil Nadu. *Rec. zool. Surv. India* : **97** (Part-1) : 163–177.

Material : 2 exs., 49.0–50.0 mm SL, F.7467, Nellore Dam, 9.10.2003, M. B. Raghunathan.

Diagnostic features : D. XV–XVIII/11–15; A. III/8–11; L.1. 31–35; L. tr. 3½–5/13–18. Gill rakers, 17–25 on lower part of anterior arch.

Depth of body 2 to 2.6 times, length of head 2 to 3.2 in TL. Eye 3.5 to 5.6 in head length; 1–2.5 in interorbital width. Mouth 1/2 to 2/3 width of head, extending to below anterior border of eye or to between nostril and eye. Pectoral 1 to 1.3 times longer than head. Caudal truncate to rounded with thin distinct bars, variable in number.

Distribution : Introduced into India.

Remarks : Recently reported from North Arcot District, Tamil Nadu (Rema Devi and Raghunathan, 1999). The occurrence of *O. niloticus* in the wild, through stray reports, though not as widespread as its officially introduced congener *O. mossambicus*, is a cause for further concern to our bio-diversity.

Family CHANDIDAE

*9. *Parambassis lala* (Hamilton)

1822. *Chanda lala* Hamilton-Buchanan, *Fishes of Ganges* : 114, Pl. 1, 21, fig. 39 (Type locality Gangetic provinces)

1991. *Pseudambassis lala*, Talwar and Jhingran, *Inland Fishes of India and Adjacent Countries*, Vol. II : 804.

1999. *Parambassis lala*, Jayaram, *The Freshwater Fishes of the Indian Region* : 370.

Material : 16 exs., 22–25 mm SL., F.7466, Nellore Dam, 9.10.03, Coll. M. B. Raghunathan.

Diagnostic features : D. VIII/11; A. III/13; P. I/10; V. I/5; L1. 90; Gill rakers 16 on the lower arm of the first arch.

A small fish with rounded body and oblique mouth. Scales minute; cheek with 7 transverse scale-rows. It attains a length of 3 cm.

Colour : in life, translucent orangish-yellow with three longitudinal dusky bands extending dorsoventrally; operculum with dark stripe; dorsal, anal and caudal fins deep orange with blackish outer margin.

Distribution : India : West Bengal, Orissa, Brahmaputra, Ganga and Mahanadi basin, and Pennar in Andhra Pradesh. Myanmar : Irrawaddy.

Remarks : Earlier restricted to North India, the species was found in Nellore Dam in Andhra Pradesh. Since it is an aquarium species this could have escaped into natural water bodies.

Family BELONTIDAE

*10. *Colisa lalia* (Hamilton)

1822. *Trichopodus lalius* Hamilton-Buchanan, *Fishes of Ganges* : 120, 372 (Type locality : Gangetic Provinces)

1991. *Colisa lalia*, Talwar and Jhingran, *Inland Fishes of India and Adjacent Countries*, Vol. II : 1007.

Material : 2 exs., 28.0 mm SL., F. 7465, Nellore Dam, 9.10.2003, M. B. Raghunathan; 1 ex., 23.0 mm SL., F. 7443, River Ramkalva, Rampur, Nellore, 21.2.2004, O. P. Srivastava.

Diagnostic features : D. xv–xvii/7–10, A. xvii–xviii/13–17; P.10., L.1. 27–28.

Body egg shaped and strongly compressed, preorbital denticulate; soft dorsal and anal fins rounded; caudal fin rounded to truncate. Anal fin densely scaled, scales covering fin to tips of posterior spines.

In life, body scarlet crossed by somewhat oblique bands of pale blue. Fins with scarlet spots or bars; anal fin with red margin.

Distribution : India : Ganga, Yamuna river system and Southern India. Pakistan. Bangladesh.

Remarks : *Colisa lalia* is found to be widely distributed in Southern India also (Ranjit Daniels, 2002).

SUMMARY

Barman (1993) gave a detailed report on the fishes of Andhra Pradesh based on his own collections and from earlier reports. This included 158 species. However from Nellore and Chittoor District only three species were collected by him viz. *Salmostoma bacaila*, *Puntius chola* and *Aplocheilus rubrostigma*. A recent survey of these districts by members of the Southern Regional Station yielded 51 freshwater species and 11 estuarine species. Of the primary freshwater species collected, nine species including 2 introduced species are new reports to Andhra Pradesh.

Regarding report of *A. rubrostigma* from Nellore district by Barman (1993) it is worthwhile to mention here that subsequently this species has been synonymised with *A. lineatus* (Val.) by Talwar and Jhingran (1999) and Jayaram (1999).

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REFERENCE

- Alikunhi, K. H., Sebastian, M. J. and Parameswaran, S. 1963. Induced spawning of the Chinese carps *Ctenopharyngodon idellus* (C. & V.) and *Hypophthalmichthys molitrix* (C. & V.) in ponds in Cuttack, India. *Curr. Sci.* **32** : 10326.
- Barman, R. P. 1993. Pisces : Freshwater Fishes. *Fauna of Andhra Pradesh, State Fauna Series 5*, (Part I) : 89-334. *Zoological Survey of India*.
- Gopi, K. C. 2000. Fresh water fishes of Kerala State. pp. 56-76. In : Ponniah, A. G. and Gopalakrishnan, K. (Eds.). Endemic Fish Diversity of Western Ghats, NBFGR–NATP publication–1, 347 pp. National Bureau of Fish Genetic Resources, Lucknow, U.P., India.
- Jayaram, K. C. 1999. *The Freshwater fishes of the Indian Region*. 1-551, pls 18. Narendra Publishing House.
- Krishnan. S., Rema Devi. K., Indra T.J. and Raghunathan, M.B. 2004. On a collection of fish from Bangalore and Kolar Districts, Karnataka. *Rec. zool. Surv. India.* **103**(3&4) : 1-13.
- Menon, A. G. K. 1999. Checklist Freshwater Fishes of India. *Rec. zool. Surv. India, Occ. Paper.* No. **175** : 1-366. *Zoological Survey of India*.
- Pethiyagoda, Rohan, 1991. Freshwater fishes of Sri Lanka : 1-362. Wildlife Heritage Trust of Sri Lanka.
- Ranjit Daniels, R. J. 2002. *Freshwater Fishes of Peninsular India* : 1-288. University Press for the Indian Academy of Sciences.
- Rema Devi, K. and Indra, T. J. 2000. Freshwater Ichthyofaunal Resources of Tamil Nadu. pp. 77-97 In : Ponniah A. G. and Gopalakrishnan, K. (Eds). Endemic Fish Diversity of Western Ghats, NBFGR–NATP Publication–1 : 1-347. National Bureau of Fish Genetic Resources, Lucknow, U.P., India.
- Rema Devi, K. and Raghunathan, M. B. 1999. Report on the Ichthyofauna of North Arcot District, Tamil Nadu. *Rec. zool. Surv. India* : **97**(1) : 163-177.
- Shaji, C. P., Easa, P. S. and Gopalakrishnan, A. 2000. Freshwater Fish Diversity of Western Ghats pp. 33–35 In : Ponniah A. G. and Gopalakrishnan, K. (Eds). Endemic Fish Diversity of Western Ghats, NBFGR–NATP Publication–1 : 1-347. National Bureau of Fish Genetic Resources, Lucknow, U.P., India.
- Singh, D. F. 1994. Red Alert. *Puntius fraseri* (Hora & Misra). Sacon News, Quarterly News letter of the Salim Ali Centre for Ornithology and Natural Histroy. Vol. **1**(1) : 4.
- Talwar, P. K. and Jhingran, A. 1991. Inland fishes of India and adjacent countries 2 volumes : xix–1158. Oxford and IBH Publishing Co. Pvt. Ltd., N. Delhi.
- Whitehead, P. J. P. 1984. Clupeidae in Fischer. W & G Bianchi, FAO species identification sheets for fishery purposes (Western India Ocean). Food and Agriculture Organisation of the U.N., Rome.
- Yadav, B. E. 2003. Ichthyofauna of northern part of Western Ghats. *Rec. zool. Surv. India, Occ. Paper* No. **215** : 1-39.