Synoptic notes on small Synonymic Cyprinoids of South India

Mathews Plamoottil^{1*} and Regy Johnson²

¹Department of Zoology, BJM Govt. College, Chavara-691583 (India) ²Department of Botany, Bishop Moore College, Mavelikara-690110 (India) <u>mathewsplamoottil@gmail.com;</u> Ph: 9447059690

*Corresponding Author

Abstract

Cyprinidae, is the largest and most diverse vertebrate family with about 3,000 species in which about 1300 are extant fishes. Most of the cyprinid fishes are economically important food fishes; they are fished and farmed in most of the Asian countries.; some small representatives of them are widely used as ornamental fishes. Some of the previously described fishes are currently not accepted by the scientific world due to imperfect description or due to lack of collection from its type locality after the original description. It is an endeavour to trace out the primary particulars of forgotten cyprinid fishes described from south Indian states such as Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Pondicherry and Goa; available essential taxonomic details including type locality, diagnostic characters, meristic counts and current taxonomic status are included.

Several imperfectly known cyprinid fish species are residing in the freshwater bodies of Kerala and adjacent states; a few of them are treated as synonyms of certain other distinct cyprinids and some are regarded as forgotten fishes. Synonymic species are menacing in scientific world as it creates systematic confusion and taxonomic ambiguity. We cannot proceed with taxonomic studies unless the uncertainty is cleared; moreover, a taxonomist is unable to describe a new fish species of its genus without eradicating the dubiety.

A number of insufficiently known and rejected cyprinid fish names can be found in scientific literature; its number is greater among south Indian cyprinoides; some species of Valenciennes⁵, Jerdon²⁰, Day^{7,8, 9, 10, 11, 12, 13,} Hora & Misra¹⁸ etc. are still under ambiguity; some of them are synonymic and others are forgotten. As many of the synonymic and forgotten names has been resurrected -from synonymy during the last 10 years^{2,3} and

^{2*}Corresponding Author Department of Botany & Biotechnology, Bishop Moore College, Mavelikara-690110 (India) promoted to the level of distinct species- and many new species discovered1^{15, 21,22, 24-31, 33} from various aquatic bodies of different parts of world- it is explicit that most of the so called synonyms are actually not synonyms, but are original species; unavailability of specimens from its type locality creates synonymy. To redescribe a synonymic species, a clear idea on its taxonomy is inevitable. unfortunately, many of the forgotten species are unknown to many budding taxonomists; it is an endeavour to present a concise account of synonymic, forgotten and imperfectly known small cyprinid fishes described from Kerala and adjacent states of south India.

Some of the cyprinid fishes of south India are synonymic; some others are forgotten. A few are imperfectly known; certain species are very rare and so could not be collected from their type locality after its original description. Nomenclatural status of some are still uncertain. Several species of Barilius, Amblypharyngodon, Chela, Danio, Esomus, Rasbora, Salmostoma, Osteobrama. Dawkinsia, Haludaria, Systomus are synonymic or forgotten. Many species of Puntius, Balitorids, Cobitids and Garrines are synonymic or imperfectly known; details of these cyprinoides are avoided in this account as it is explicated elsewhere.

Opsarius dualis Jerdon :

Jerdon²⁰. *Madras Journal of Literature and Science*, 15, 330. D-9; A- 10; LLS- 42. Head 4 ¹/₂ and height of body 3 2/3 in standard length; 'profile of the back barely arched to dorsal, then concave; abdomen regularly arching', golden on sides with transverse bars and fins white tipped with orange; all scales with a small black spot on middle.

Type Locality: Tanks and Rivers at Coimbatore.

Current Status: It is a forgotten species.

Barilius rugosus Day

Day⁹. Proceedings of Zoological Society of London, 294, 295.

D- iii, 8; P- 15; V- 10; A- iii, 14; C- 18; LLS- 40; LL/Tr- 8/3.

Length of head 1/4, height of head 1/7 and height of body 1/4 of total length. Profile more convex on the ventral than on the dorsal aspect; lower jaw is received at its termination into a slight emargination formed by the junction of the intermaxillaries. The anterior surface of the snout, sides of the intermaxillaries and of the lower jaw covered with large glands; dorsal commences midway between snout and middle of caudal fin and opposite the anterior third of the ventral. Anterior extremities of dorsal and anal fins the highest; fifteen vertical grevish silvery bands pass from the grey of the back to nearly as low as the lateral line; fins greyish, the anterior extremity of the dorsal and anal tipped with white. it has fifteen distinct stripes.

Type Locality: The Bhavani and 'Seegoor' Rivers.

Current Status: Synonym of *Barilius*. *gatensis* Valeciennes⁶.

Barilius gatensis (Valenciennes)

Leuciscus gatensis, Valenciennes⁶. Hist. Nat. Poiss. 17, 309.

Day¹³. Fishes of India. 592. Day¹⁴. Fauna of India. 1, 349. D-19; A-17; LLS- 38.

Body compressed and broad; abdomen arched than dorsal profile; anal fin long; colour dark above silvery beneath; lateral sides with 9 small vertical bands.

Type Locality: Streams of western Ghats Current Status: An accepted species; but the species currently treated as '*Barilius gatensis*' may not be the original *gatensis* described by Valenciennes⁶; the latter differs from present '*gatensis*' in lateral line scales, body depth and number of bands on body.

Amblypharyngodon jerdoni Day

Brachygramma jerdoni. Day⁷. Proceedings of Zoological Society of London, 304. *Amblypharyngodon jerdoni*. Day⁸. Fishes of Malabar, P. 217, Pl, 17. *Amblypharyngodon jerdoni*. Day⁹. Proceedings of Zoological Society of London, 295.

D- ii, 7; P- 15; V-9; A- iii, 5; C- 19; LLS- 63; LL/ TR- 10/6.

Have a minute first undivided ray in the dorsal fin. The colour not so bright; bluish green along the back; mid lateral stripe is of a steel-colour. Length of specimens up to 3 3/10 inches.

Type Locality: Bhavani River.

Current Status: Synonym of *A. melettinus* described by Valenciennes⁶ from Mumbai.

Rhodeus indicus Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15, 324.

Lateral line incomplete; scales in lateral line series 50; dorsal fin rays ii, 7; A-7. eyes large;

an yellow streak along sides.

Type Locality; River at Palakkad.

Rhodeus indicus is closely related to *Amblypharyngodon melettinus* Valenciennes⁶ and so currently treated as synonym of the latter.

Rhodeus macrocephalus Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15, 324.

Jerdon². described it as a close congener of *Rhodeus indicus*; it differs from the latter in having larger head and more fusiform body. Type Locality: Cauvery River and its tributaries.

Current Status: Synonym of *Amblyphary-ngodon mola* (Hamilton¹⁷).

Amblypharyngodon chakaiensis Babu and Nair

Babu and Nair¹. Aquatic Biology, 3, 122.

D- ii, 7; A- iii, 5; P- i, 16; V- i, 8. SLS- 54-57; LL/V-8-10.

Lateral line incomplete and ceasing after 17-22 scales; a bluish green band occur on lateral side.

Type Locality: Veli Lake, Trivandum Current Status: According to Menon²³ it is a synonym of *A. melettinus*

Enobarbichthys maculatus (Day)

Platacanthus maculatus Day¹⁰. *Proc. Zool. Soc. London*, 941-942 (Type locality: Madras, India).

Jerdonia maculata Day¹². Proc. Zool. Soc. London, 700 (1871) (New genus proposed to accommodate *P. maculatus* Day).

Beaven⁴. *Handbook Freshwater Fish India*, 113 (Diagnosis after Day).

Silas³⁴ J. Mar. Biol. Ass. India, 2 (I): 89-94.

D- III, 27; P- 16; V-8; A- III, 5; C-21.

A small fish with elongate body, head small, dorsal fin with 30 rays, two bifid suborbital spine present below eyes; 3 pairs of barbels.

Type Locality: Madras

Current Status: Accepted species, but imperfectly known.

Paradanio elegans Day

Day⁹. Proceedings of Zoological Society of London, 297.

D- i, 3; P- 11; V-8; A-ii, 23; C-19; LLS-52; LL/TR-8/2.

Dorsal fin inserted over the middle of the anal; ventral with an elongated ray extending to middle of the anal, which last fin is highest anteriorly. Caudal lobed, lower lobe both largest and longest. Body with longitudinal silvery band on upper lateral side; several yellow vertical bands on side.

Type locality: Bhavani River.

Current Status: This fish is treated as a synonym of *Chela cachius* Hamilton¹⁷.

Perilampus macropodus Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 325.

D- 9; A-21.

Head small and recurved; Ventral fin with first ray longer than pectoral; green above silvery beneath; fins yellowish.

Type Locality: Cauvery River at Coorg.

Current Status: It is treated as a synonym of *Chela cachius* Hamilton¹⁷.

Paradanio aurolineatus Day

Day⁹. Proceedings of Zoological Society of London. 296. D-iii, 11-13; P-14; V-7; A- iii, 15-16; C-19; LLS- 35; L/TR- 7/2.

There are some irregular vertical yellow lines on the fore part of the body, and the blue between the yellow lines and the opercular spot is less distinct. The lower half of the dorsal fin is also darker.

Type Locality: Bhavani River

Current status: It is regarded as a synonym of *Danio malabaricus* (Jerdon).

Perilampus canarensis Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 325.

D- 15; A- 20.

Head 4 ¼ and body height 2 ½ in total length, dorsal fin greenish tipped orange.

Anal and caudal fin yellowish orange; anal with a greenish mark on the base of central rays, pectoral and ventral fins greenish.

Type Locality: Rivers of Canara Current Status: synonym of *Danio malabaricus*.

Perilampus mysoricus Jerdon

Jerdon²⁰ Madras Journal of Literature and Science, 15: 325

D-11; A-15.

Green above, silvery beneath, dorsal, anal and caudal fins yellow tipped with orange, the caudal with central rays yellow; pectoral and ventral fins colourless; head 4 ¹/₂ and height 3 ¹/₂ in total length; lateral line bending down rapidly from top of opercle till on a line with the base of the pectoral fin and thence parallel with abdomen.

Type locality: Cauvery River and its tributaries. Current Status: Synonym of *Danio* malabricus.

Leuciscus barbatus Jerdon

Jerdon²⁰. Madras Journal of Literature and

Science, 15: 322

2 pairs of barbels; posterior pair reaching to ventral fin; dorsal profile straight upto dorsal fin, concave behind it; dorsal fin small and placed well behind; anal fin longer than dorsal; caudal fin large; an yellow stripe along the body.

Type localiy: Mysore and Carnatic

Current Status; Synonym of *Esomus thermoicos* (Valenciennes⁵).

Leuciscus rubripes Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 323

1 pair of barbels; lateral line scales 45; profile of the back slightly convex; dorsal fin medial and yellow edged with black; pectoral yellow; ventral and anal white, tipped with vermillion; caudal pink in centre; yellow externally.

Type Locality: Bhavani River.

Current Status: It is a forgotten species.

Leuciscus malabaricus Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 320

D-10; A-7; LLS-32.

Head and body height ¹/₄ of total length; a leaden blue stripe from eye to tail with an yellow line above it; lateral line scales 32. Type Locality: Streams in Malabar Current Status: Synonym of *Rasbora dandia*.

Rasbora neilgherriensis Day

Day⁹. On the fishes of Neilgherry Hills and Rivers around their bases. *Proceedings of Zoological Society of London*. 298.

D-ii, 7; P-13; V-8; A-ii,5; C-18; LLS- 34; LL/ Tr-6/3.

Length of head 2/11, height of head 1/9 and height of body 1/5 of total length; cleft of mouth

extending to anterior border of orbit; ventral profile of the body convex and dorsal side nearly straight. Dorsal fin located midway between tip of snout and caudal fin base, above at the middle of ventral fin. A darkish silvery line runs along the opercles and side of the body and a broad silvery band below it. Fins yellowish grey; base of caudal dark grey. Eyes bluish green. It is said to grow upto 8 inches.

Rasbora malabarica Day^4 described in Fishes of Malabar may be a synonym of *R*. *neilgherriensis* Day.

Type Locality: Bhavani and 'Seegoor' Rivers. Current Status: Synonym of *Rasbora dandia*.

Rasbora woolaree Day

Day⁸. On the fishes of Neilgherry Hills and Rivers around their bases.

Proceedings of Zoological Society of London. 298, 299.

D- ii, 7; P- 13; V- 8; A- ii, 5; C- 18; LLS-30; L/TR- 5/2.

Length of head $\frac{1}{4}$, height of head $\frac{2}{15}$ and height of body $\frac{1}{4}$ of the total length.

Cleft of mouth extending to under the anterior margin of the orbit ; upper jaw broad; the lower jaw with a well-marked knob at its anterior extremity and which is received into a rather deep emargination in the centre of the upper jaw, where, when the mouth is closed, it forms part of the upper profile. Upper surface of head nearly flat. Preorbital irregularly pentagonal, pointing downwards and backwards, its posterior margin the longest. A leaden-blue stripe passes from the eye to the centre of the caudal fin; it has a dull yellow edging above. Fins orange. This species of *Rasbora* is similar to *R. neilgherriensis* in most of the features; it differs from the latter in its comparatively longer head, its larger eye, its mouth, its pre orbital, its lateral line, lateral line scales and the shape of the caudal fin.

Type Locality: Bhavani River.

Current Status: Synonym of Rasbora dandia.

Leuciscus flavus Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 320, 321. D-9; A- 6; LLS- 30.

Head length and height of body ¹/₄ of total length; eyes 3 ¹/₂ in head length, lateral line scales 30; an yellow streak present along sides; fins yellowish, caudal fin tipped with black. Type Locality: Tanks in Carnatic region Current Status: Synonym of *Rasbora dandia*.

Rasbora xanthogramme Jerdon

Jerdon²⁰ Madras Journal of Literature and Science, 15: 320, 321.

D-8; A- 6; LLS- 30.

Head 4 ¹/₄ and height of body 4 ¹/₂ of body length; eyes 5 times in head; dorsal fin a little behind middle of the body, an yellow stripe passes from operculum to tail.

Type Locality: Tanks and Rivers in Mysore and Carnatic.

Current Status: synonym of Rasbora dandia

Rasbora microcephalus Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 320, 321.

Head 1/5 of the length of body, eye close to muzzle; opercle large and pointed; profile of the back gently arching to dorsal and then concave to tail. Abdomen much curved to anal and then nearly straight. Height 3 ¹/₂ times in length, dorsal fin behind the middle over the interval of ventral fin and anal fin, lateral line scales 30, lateral line curved; yellow green

above, silvery beneath, with bright burnished silver streak along sides; fins yellowish. Type Locality: Tanks and Rivers in Madras. Current status: It is considered as a synonym of *Rasbora rasbora*.

Pelecus diffusus Jerdon

Jerdon²⁰ Madras Journal of Literature and Science, 15: 327

Gunther¹⁶. *Catalogue of fishes in British museum*, 7: 334.

D-9; A-17.

Head length and height of body 5 $\frac{1}{2}$ in total length, eyes 1/3 of head length, profile of the back straight, abdomen arched; green above, silvery beneath, a bright yellow line in between this; dorsal, anal and caudal fin yellow with a black edging. Jerdon² mentioned about its lateral line scales as 'about 50', means he didn't count it precisely; it may be a number in between 40-50.

Type Locality: Cauvery River and its tributaries.

Current Status: Synonym of Salmosoma acinaces (Valenciennes).

Pelecus flavipinnis Jerdon

Jerdon²⁰ Madras Journal of Literature and Science, 15: 327

D-9; A-17; LLS- 60-65.

Head 5 $\frac{1}{2}$ and height of body 4 $\frac{1}{2}$ of total length, eyes $\frac{1}{4}$ of head length; profile of back straight, abdomen arched. Dorsal, anal and caudal fins white edged with orange yellow.

Type Locality: Cauvery River and its tributaries.

Current Status: Synonym of *Salmosoma* acinaces (Valenciennes).

Chela argentea Day

Day⁹. On the fishes of Neillgerry Hills and Rivers around their bases. Proceedings of Zoological Society of London. 301.

Oxygaster argentea. Rajan³². Journal of Bombay Natural History Society, 53 (1): 45 D-iii, 7; P- 15; V- 8; A- iii, 14; C- 19; LLS- 40-

45; LL/TR- 7/2

Cleft of mouth extending to beneath the anterior third of the orbit: the lower jaw is directed obliquely upwards, so that its anterior extremity is nearly level with the dorsal profile. Dorsal fin situated in the posterior third of the distance between the snout and the base of the caudal fin and over the commencement of the anal. Pectoral commencing under the posterior extremity of the opercle; pectoral fin extends to rather beyond the base of the ventral fin; latter does not reach to anal fin.

Colour silvery; a broad green band extending from behind the upper part of the orbit to the centre of the caudal fin.

Fins yellowish; external portions of dorsal and caudal stained with dark, due to numerous minute black spots. Outer margin of dorsal, anal and caudal fin blackish.

Type Locality: Bhavani River

Current Status: Synonym of Salmostoma acinaces.

Pelecus affinis Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 326, 327

D-9; A-15.

Head 4 $\frac{3}{4}$, body height 4 $\frac{1}{2}$ in total length; eye 1 $\frac{1}{4}$ of head length.

Profile of the back and abdomen slightly curved; lateral line scales 'about 90'; pectoral fin long; colour coppery green above silvery beneath; fins yellowish.

Type Locality: Tanks and Rivers in Mysore and Carnatic regions.

Current Status: *Salmostoma clupeoides* (Bloch)

Rohtee dayi Hora and Misra

Hora & Misra¹⁸. Record of Indian Museum, 42(1): 162, 163.

D- iv, 8; A- 19-21 (iii, 16-18); P- 16-17; V- 9; LLS- 68-70.

Both the dorsal and the ventral profiles are greatly arched; the form is that of a trapezoid. The greatest depth of the body is below the commencement of the dorsal fin and is contained from $2 \cdot 1$ to $2 \cdot 3$ times in standard length. There are two-minute maxillary barbels, which are liable to be overlooked if not properly searched. $13\frac{1}{2}$ to $14\frac{1}{2}$ rows of scales between the lateral line and the base of the pelvic fin and 28-30 scales in front of the dorsal fin. Last denticulated dorsal spine is moderately strong. The pectoral fins reach the base of the pelvic fins. The pelvic fins do not extend to the base of the anal fin. A black band present behind gill cover.

Type Locality: Godavari River.

Current Status: Synonym of Osteobrama vigorsii (Sykes).

Systomus maderaspatensis Jerdon

Jerdon²⁰. *Madras Journal of Literature and Science*, 15: 326, 319.

D-iii, 8; A- iii, 5.

Dorsal fin reddish, stained with black; caudal edged broadly with fine red and a black tip to each lobe; all fins reddish.

Type Locality: Tanks in Madras

Current Status: Synonym of Dawkinsia filamentosa

Capoeta Lepidus Day

Day¹¹. On some new fishes from Madras. Proceedings of Zoological Society of London, 196.

D-3/8; P- 15; V- 9; A- 2, 5; C- 19; LLS- 21; L. tr. 5/3.

Body strongly compressed; lower jaw slightly shortest. Snout somewhat obtuse. Maxillary cirri thin and extending to under the centre of the orbit. None of the dorsal fin-rays elongated. Lateral line slightly concave to opposite end of dorsal fin, whence it is straight. Silvery white, with a greenish back and a diffused black spot on the lateral line from the fourteenth to the eighteenth scale. Caudal red, tipped with black.

Type Locality: Bhavani River.

Haludaria afasciatus (Jayaram)

*Puntius afasciatus*¹⁹. Journal of Bombay natural History Society, 86 (3& 4). D-I, 9; P- 15; V-i, 8; A- ii, 5; C-16; LLS- 22.

A deep bodied fish without any vertical bands, last unbranched dorsal ray weak and smooth, complete lateral line with 22 scales, dorsal fin with 9 branched rays; 4 barbels.

Type Locality: Nagercoil, Tamil Nadu Current Status: Accepted species; but much taxonomic details are unavailable.

Puntius melanampyx Pradhani Tilak

Tilak³⁵. *Records of Zoological Survey of India*. 67 (1-4): 97.

D-ii- iii, 8; P-i, 13- 15; V-i, 8; A- ii-iii, 5; C-19; LLS-19-20; PDS- 6 / 7.

A deep bodied fish with five coloured bands on body; 4 barbels, dorsal spine weak and articulated; lateral line complete.

Type Locality: Goa.

Current Status: It is treated as a synonym of

Haludaria fasciatus Jerdon; but it is a distinct species.

Cyclocheilichthys pinnauratus Day

Day⁷. Proceedings of Zoological Society of London. P. 300.

Day⁸. Fishes of Malabar. P. 209.

D-ii- iii, 8; P-17; V-i, 8; A- iii, 5; C-21; LLS-28.

Dorsal fin inserted slightly in front of ventral fin; last undivided dorsal ray serrated; dorsal and pectoral fins tinged with red and minutely spotted with black. external half of the ventral bright orange scarlet; anal tipped with red; caudal stained with black.

Type Locality: Freshwaters of Malabar Current Status: Synonym of *Systomus subnasutus* Valenciennes.

Barbus gibbosus Valenciennes

Valenciennes⁵. Hist. Nat. Poiss. 16, 155.

D-iv, 8; A- iii, 5; LLS- 29.

Head small, one sixth of total length, height three and a half in total length; 29 lateral line scales, last undivided dorsal ray serrated. Type Locality: Aleppey

Current Status: Forgotten species

Barbus chrysopoma Valenciennes

Valenciennes⁵.Hist. Nat. Poiss. 16, 165. D- iv, 8; P- 15; V-9; A- iii, 5; C- 10; LLS-28; LL/TR- 6/4.

Body elongated; a considerable rise from snout to occiput; 2 pairs of barbels; dorsal fin inserted midway between snout tip and caudal base; last undivided dorsal ray serrated; last branched dorsal fin and anal fin rays divided to root.

Anal and ventral fin orange; dorsal and caudal fins margined with a dark colour.

Type locality: Bombay and Malabar

Current Status: Synonym of Systomus subnasutus

Barbus rosepinnis Valenciennes

Valenciennes⁵. *Hist. Nat. Poiss* 16. 169. D- ii-iii, 8; P-13-14; V-i, 8; A- i-ii, 5; C- 18-20; LLS- 22.

A moderately elongate fish with anterior part high, four barbels, dorsal ray osseous, strong, serrated; lateral line complete with 22 scales; pelvic, anal and caudal fins red; lower lobe of caudal fin black

Type Locality: Pondicherry.

Current Status: In having 4 barbels and serrated last undivided dorsal ray, it resembles *Systomus* species. But it must be considered as a separate species.

Opsarius dualis Jerdon²⁰. was described from rivers of Coimbatore and Palakkad; his account distinctly demarcated it from all topographically close congeners. It differs from its congeners in having 42 lateral line scales, 9 dorsal rays, 10 anal fin rays, Jerdon²⁰ wrote: 'This is an interesting subject on which much speculation might be advanced, but it would be out of place here...it is by no means a typical Opsarius, though its mode of colouration, allied it to them, its mouth being much horizontal, and it appears very closely allied to Leuciscus cocsa..'. Opsarius dualis Jerdon²⁰ is a distinct species with considerable differences from all its congeners; but no specimens of it had been procured from its type locality after its original description. Barilius rugosus described by Day⁹ from Nilgiris is a distinct species; it is with 15 vertical bands and 40 lateral line scales; it is closely related to B. gatensis; but gatensis is with 38 lateral line scales and a\its body is also with 9 verticals bands on body; moreover, gatensis is also a deep bodied fish. Barilius rugosus must be rediscovered and redescribed from its type locality. Amblypharyngodon jerdoni Day described from Bhavani River may also be a distinct species; it differs from its congeners in having 63 lateral line scales; many characters mentioned by Day⁸ are general characters of the genus; the bright greenish yellow line separating the green of the back from the silvery sides and abdomen cannot be considered as a specific character; it is common to A. melettinus. Day⁸ mentioned that type locality of A. jerdoni as Bhavani River, But Day^{7,8} not mentioned about its locality. Collections from the locality alone can prove the identity of A. jerdoni.

Rhodeus indicus Jerdon²⁰ described from Palakkad of Kerala is a distinct species; its lateral line scales and dorsal fin ray counts are different from its close congeners. Amblypharyngodon chakaiensis Babu and Nair¹ described from Veli of Kerala is an insufficiently known species; collection of it from the type locality, after original description, is also not known. Enobarbichthys maculatus (Day⁹) described from Madras is a forgotten species. Even though it is an accepted species, no one could procure this fish from its type locality after its original description from its type locality. *Paradanio elegans* Day⁹ is not an accepted species now; it is treated as a synonym of *Chela cachius* Hamilton¹⁷. But morphologically and topographically these are widely separated; the former was discovered from Bhavani river and latter from west Bengal. Description of the lateral line of Paradanio elegans is peculiar: 'Lateral line

in single tubes; it first curves round the base of the pectoral fin, and just beyond the ventral attains within two scales of the abdominal profile, which it follows as far as the posterior extremity of the anal and then curves upwards to the centre of the caudal'. Danio malabaricus is a distinct species; but many confusions exist in its details; more over many species are treated as synonyms of it; Paradanio aurolineatus Day⁹, Perilampus canarensis Jerdon²⁰ and *P. mysoricus* Jerdon²⁰ are considered as synonyms of D. malabaricus. Leuciscus rubripes Jerdon²⁰ collected from Bhavani River is indeed a forgotten species, no mention of this name in taxonomic literature after its original discovery. It colours and lateral line scale counts reveals that it may be a distinct species. Day⁹ described Rasbora neilgherriensis and Rasbora woolaree from Bhavani River of Tamil Nadu in detail. As these were not collected from its type locality after its description, it is now considered as a synonym of Rasbora dandia. Rasbora malabarica Day⁷ described in Fishes of Malabar may be a synonym of R. neilgherriensis Day. .Leuciscus flavus Jerdon²⁰ and *Rasbora xanthogramme* Jerdon²⁰ may be distinct species; but fresh specimens are inevitable for confirming their identities. Several Salmostoma species are residing in the freshwater bodies of south India; Pelecus diffusus Jerdon²⁰, Pelecus flavipinnis Jerdon²⁰ of Cauvery River and tributaries and Chela argentea Day⁹ of Bhavani River may be distinct Salmostoma species. Menon²³ treated Haludaria afasciatus¹⁹ as a synonym of Haludaria fasciata; but currently it is considered as a distinct species; but it is

insufficiently known and no more collection of this fish from its type locality after its description. It was described based on a single specimen of *Puntius melanampyx kannyiyakumarei* Menon and Sareen deposited in ZSI museum at Kolkata. It is expected that all the synonymic and forgotten species, described above, will be resurrected and redescribed in days to come.

The first author is grateful to DST-SERB for sanctioning Core Research Grant for funding this research work. We are thankful to anonymous reviewers for the comments that helped improve the manuscript.

References :

- 1. Babu, R. M. and N.B. Nair (1978). Aquatic Biology. 3: 121-125
- Barman, R. P., A. Das, S. S. Mishra and S. Ka. (2011): *Records of Zoological Survey of India 111*(1): 31-35,2011.
- Batuwita, S., K. Maduwage and H. Sudasinghe. (2015): Zootaxa 3936 (4): 575–583.
- 4. Beavan, R. (1877). Handbook of the freshwater fishes of India, London 57p
- Cuvier, G. and A. Valenciennes (1842). *Histoire naturelle des poissons. Tome seizième. Levrault,* Strassbourg 456– 487.
- Cuvier, G. and A. Valenciennes (1844). Histoire naturelle des poissons. Tome dix-septième. Suite du livre dix-huitième. Cyprinoïdes 497+2 p.
- 7. Day, F. (1865): Proceedings of Zoological Society of London. 286-318.
- 8. Day, F. (1865a). The Fishes of Malabar. *Bernard Quaritch*, London. 208-211.

- 9. Day, F. (1867). Proceedings of Zoological Society of London. 281-302.
- 10. Day, F. (1867a). Proceedings of Zoological Society of London. 935-942.
- 11. Day, F. (1868). Proceedings of Zoological Society of London. 196.
- 12. Day, F. (1870). Proceedings of Zoological Society of London. 700.
- 13. Day, F. (1878). The fishes of India: being a natural history of the fishes known to inhabit the seas and fresh waters of India, Burma, and Ceylon. *William and Norgate, London*.
- 14. Day, F. (1889). Fauna of British India including Ceylon and Burma. *Taylor and Francis*, London
- 15. Dishma, M. and W. Vishwanath. (2013). *Zootaxa 3736* (1): 82-88.
- Gunther, A. (1868). Catalogue of the fishes in the British Museum. Vol. 7. *British Museum*, London. xx + 512 pp.
- Hamilton, F. (1822). An Account of Fishes found in the River Ganges and its branches. *Edinburgh Hurst, Robinson & Co*, London. 312-389.
- Hora, S. L. and K. S. Misra (1942). *Record of Indian Museum.* 42 (1): 162-163.
- Jayaram, K. C. (1991). Records of Zoological Survey of India, occasional paper no. 13, Zoological Survey of India, Kolkata, 113-123.
- 20. Jerdon, T. C. (1849). *Madras Journal* of *Literature* Science, 15 (2): 302-346.
- Knight, M. J. D., A. Rai, K. P. Ronald,; D'souza and B. Vijaykrishnan (2015). *Zootaxa 3926* (3): 396–412.

- Kullander, S.O., M.R. Mizanur, M. Norén, and A. R. Mollah. (2018). *ZooKeys*. 742: 105–126.
- 23. Menon, A. G. K. (1999). *Rec. zool. Surv. India* Occ. Paper No. 175, 366.
- 24. Plamoottil, M. (2014). International Journal of Fauna and Biological Studies. 1(6): 135-145.
- 25. Plamoottil, M. (2014a). *Journal of Research in Biology*, 4(8): 1581-1588.
- Plamoottil, M. (2015). International Journal of Pure and Applied Zoology, 3 (3): 226-231.
- 27. Plamoottil, M. (2016). International Journal of Research Studies in Biosciences 4 (9): 1-6.
- Plamoottil. M. (2016a). International Journal of Innovative Studies in Aquatic Biology and Fisheries 2 (5): 20-26.
- 29. Plamoottil, M. (2019): Journal of Experimental Zoology, India 22 (2): 713-718.
- Plamoottil, M. (2020). Bioscience Research. 17(1): 560-567.
- Plamoottil, M. and N. P. Abraham. (2014). Journal of Research Biology, (7): 1093-1104.
- 32. Rajan, S. (1955). Journal of Bombay Natural History Society. 53 (1): 45.
- 33. Reddiah, K. (1980). Bulletin of Zoological Survey of India (1 & 2) : 13-18, 1980.
- 34. Silas, E. G. (1960). Journal of Marine Biological Association of India, 2 (I): 89-94.
- 35. Tilak, (1972). *Records of Zoological Survey of India.* 67 (1-4): 97-101.