THE IDENTITY OF PUNTIUS MELANAMPYX SINGHALA (DUNCKER, 1911) (PISCES, CYPRINIDAE)

by

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SUMMARY

It is shown that Puntius melanampyx singHALA (Duncker, 1911) is identical to juvenile stages of P. filamentosus (Val., in Cuv. & Val., 1844). The taxonomic relationship between the latter species and P. melanampyx (Day, 1865) is briefly discussed. The argument of the present paper is not influenced if the generic name Barbus is adhered to instead of Puntius.

Synonymy


INTRODUCTION

The species Barbus singhala was described by Duncker in 1911 from specimens collected in Ceylon (Sri Lanka). In 1930 Deraniyagala named it Puntius singhala (Duncker, 1911). Subsequently, the same author (DERANIYAGALA, 1949: 17) relegated it as a subspecies to P. melanampyx Day, 1865, and named it P. melanampyx singhala (Duncker, 1911). In the same publication (1949: 4) Deraniyagala spells P. melanampyx sinhala. In 1952 his spelling is P. m. sinhala throughout. The latter spelling is also adopted by MUNRO (1955). While P. m. singhala (Duncker, 1911) is nomenclatorially correct, P. m. sinhala Deraniyagala, 1949 is an erroneous spelling.

The present paper attempts to show that P. melanampyx singhala represents a juvenile stage of P. filamentosus (Val., in Cuv. & Val., 1844). It is based on study of specimens collected from two river systems in the wet zone of Sri Lanka (Gin Ganga and Kalu Ganga, see De Silva & Schut, in prep.) and on laboratory observations made at Leiden, where several generations of P. filamentosus have been reared.
The specimens of our collection have been deposited in the Rijksmuseum van Natuurlijke Historie, Leiden Nr: RMNH 28612. Types of B. singhala in Hamburg Museum: Hbg. Mus. 11600, 11601, 11602 (4 ex.).

RESULTS AND DISCUSSION

Table I surveys the specimens of our collection. Those of 20 mm T.L. and below have a dark blotch at the nape and 3 pairs of black vertical stripes on the flanks. The first stripe runs from the origin of the dorsal to the origin of the ventral. The middle stripe lies above the anal fin. The third runs across the tip of the caudal peduncle. In the larger specimens the blotch and the stripes disappear gradually with increasing length of the fish. Only the central part of the middle stripe remains as a spot. The final pattern is the same as described for P. filamentosus by several authors, beginning with Valenciennes in CUVIER & VALENCIENNES (1844).

In specimens of over 20 mm T. L. the tips of the caudal fin start to become black and remain so in the larger ones. The dorsal fin is pigmented at its base. Also the tip tends to be blackish with the exception of the smallest specimen. The base of the anal is likewise black, in continuation of the middle stripe on the caudal peduncle. The dorsal and anal fin patterns tend to disappear in the larger specimens or in the adult (figs. 2a-g).

In all size groups 4 spines in the dorsal fin are recognizable. The first is rudimentary and may easily be missed by an observer (fig. 3). In all specimens a rudimentary maxillary barbel is present (figs. 4 & 5). In the smaller specimens the barbel is very small and lodged inside a groove. It may easily go unnoticed.

The characters described above are summarized in table 2, together with some morphometric data. The latter do not vary with the sizes of the specimens. The table also allows comparison with other species and specimens.

Our specimens form a perfect series ending with what unmistakably is adult P. filamentosus. All of the characters of table 2 sustain the conclusion that the smaller specimens are juveniles of this species. The main difference is the presence, in the young fish, of cross-stripes lacking in the adult. However, it has been known for some time that young P. filamentosus have exactly these crossbars (and the other details of pigmentation described above) (STERBA, 1962; KORTMULDER, 1972; SOBHANA, 1976). The young stages described and depicted by KORTMULDER (1972) were...