

Betta pallida spec. nov., a new fighting fish from southern Thailand (Teleostei: Belontiidae)

Betta pallida spec. nov., ein neuer Kampffisch aus dem Süden Thailands (Teleostei:
Belontiidae)

Ingo Schindler¹ & Jürgen Schmidt²

¹Warthestr. 53a, D-12051 Berlin, ingoschindler@web.de

²Bühlfelderweg 10, D-94239 Ruhmannsfelden, djs@bede-verlag.de

Summary: *Betta pallida* spec. nov. is described from the most southern part of the peninsular Thailand (Narathiwat province). The new species differs from the most similar *B. prima* by the lanceolate caudal fin of males (*versus* a round or slightly pointed caudal fin in *B. prima*) and a specific pattern of three dark longitudinal stripes. *Betta pallida* is a member of the *B. picta* species group. It differs from the remaining species (except *B. prima*) by the lack of a broad dark marginal band along the anal fin and on the lower part of the caudal fin, and the possession of 26 or 27 anal fin rays.

Key words: *Betta pallida* spec. nov., Belontiidae, fighting fishes, Thailand

Zusammenfassung: *Betta pallida* spec. nov. wird aus dem südlichsten Teil Thailands (Provinz Narathiwat) auf der malaiischen Halbinsel beschrieben. Die neue Art unterscheidet sich von der ihr ähnlichsten Art *B. prima* durch den Besitz einer lanzettförmigen Schwanzflosse und ein spezifisches Muster aus drei dunklen Lateralstreifen. *Betta pallida* gehört der *B. picta*-Artengruppe an und unterscheidet sich von den übrigen Arten dieser Gruppe (außer von *B. prima*) durch das Fehlen eines dunklen Bandes entlang des Afterflossensaums und auf dem unteren Rand der Schwanzflosse sowie durch den Besitz von 26 und 27 Afterflossenstrahlen.

Schlüsselwörter: *Betta pallida* spec. nov., Belontiidae, Kampffische, Thailand

1. Introduction

Fighting fishes of the genus *Betta* are widely distributed in Southeast Asia. With more than 30 described species *Betta* is the genus with the highest number of species within the family Belontiidae. Within the genus different species groups can be recognized, which are traditionally divided into mouthbrooding and bubble nesting species (e.g. SCHMIDT 1996) according to the mode of parental care. The new species described herein is a mouthbrooding species from the Narathiwat Province in the most southern part of the peninsular of Thailand; it is similar to *B. prima* KOTTELAT, 1994 from southeast Thailand and Cambodia.

2. Material and Methods

Counts and measurements follow WITTE & SCHMIDT (1992), except for snout length, which is measured along the median body axis as the distance from the snout tip to the anterior margin of the orbit. Terminology of colour patterns and shape follows WITTE & SCHMIDT (1992) and KOTTELAT (1994).

The type specimens were fixed in formalin shortly after capture and deposited in MTD (Museum für Tierkunde Dresden). Type specimens are listed under species account. Three further specimens (non types) collected with the holotype were kept in an aquarium, where they suddenly and unexpectedly died. These three specimens

which are not well preserved are stored in the collection of the first author.

Data from KOTTELAT (1994) and TAN & KOTTELAT (1998b) were used for comparison.

SL = Standard length.

3. Results

3.1. *Betta pallida* spec. nov.

Holotype: MTD F 28 389, 33.5 mm SL, adult male; Thailand, Narathiwat Province, about 30 km west of Narathiwat at the street to Ruso (app. 6° 21' N 101° 38' O); leg. N. Thantaha & I. Schindler, March 2000.

Paratype: MTD F 28 390, 32.8 mm SL, adult female; same data as holotype.

Diagnosis: The new species is most similar to *B. prima* from southeast Thailand and Cambodia. *Betta pallida* differs from *B. prima* by a lanceolate caudal fin in males, a dark central lateral stripe which is not interrupted (*versus* posteriorly interrupted in *B. prima*) and more clearly defined dorsal and ventral margins, the lack of a distinct caudal spot (*versus* a small dark spot on the caudal fin base at the posterior end of central stripe in *B. prima*), a lower lateral stripe posteriorly disrupted into widely spaced small blotches (*versus* lower stripe continued to the lower caudal fin base in *B. prima*).

Description: Based on the holotype, an adult male of 33.5 mm SL, and the paratype, an adult female of 32.8 mm SL. Variations in fin ray counts of three further specimens (24.2 to 30.8 mm SL) are included. Numbers in brackets indicate the number of specimens examined. For general appearance of body shape and colour pattern see figure 1. Measurements are in percentages of SL. Total length 148.8/132.6, head length 36.2/34.5, postorbital length 18.8/15.2, predorsal length 65.0/63.7, preanal length 49.2/21.6, postdorsal length 22.9/23.4, body depth 27.4/28.3, body width 20.8/20.7, length of dorsal-fin base 11.3/12.5, length of anal-fin base 50.5/49.7, length of pectoral fin 24.4/21.3, length of pelvic fin 37.3/24.4, length of caudal fin 47.2/31.3. Dorsal and anal fins pointed posteriorly. Caudal fin in males lanceolate, in females pointed. Pectoral fin round. Pelvic fins produced (in males longer than in females). Dorsal-fin rays I, 8 (3), I, 9 (2). Anal-fin rays II, 24 (4), II, 25 (1). Pectoral-fin rays 11 (1), 12 (3), 13 (1). Pelvic-fin rays I, 1, 4 (5). Caudal-fin rays i, 5+7, i (4), ii, 5+7, i (1). Lateral scale count 26/28, transversal scale count 9/9½, predorsal scales 19/20.

Colouration: Body and head yellowish, brownish on back. Three prominent longitudinal stripes. Upper and central stripes continuous, without interruptions and with clearly defined dorsal and ventral margins. Lower stripe from throat

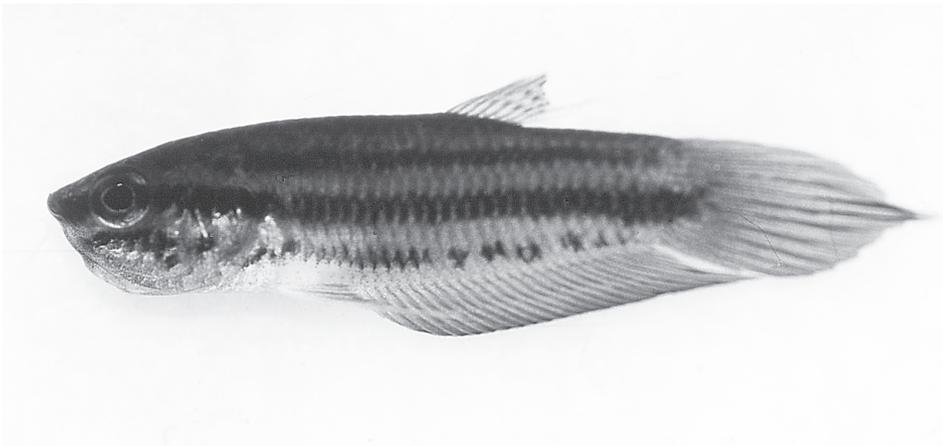


Fig. 1: *Betta pallida* spec. nov., male, holotype.

Abb. 1: *Betta pallida* spec. nov., Männchen, Holotyp.



Fig. 2: *Betta pallida* spec. nov., female, paratype.

Abb. 2: *Betta pallida* spec. nov., Weibchen, Paratyp.

to lower half of caudal base, anteriorly touching ventral margin of eye, posteriorly disrupted into several small blotches. Dorsal fin with rows of brownish spots on the interradiar membranes. Anal fin with a very narrow dark margin and a faint dark longitudinal band in the middle. Caudal fin plain.

Distribution: Known only from the Narathiwat Province, Thailand.

Etymology: From the Latin adjective *pallidus* meaning “pale, colourless”, alluding to the fact that within the genus *Betta* there are several species which are more colourful.

4. Discussion

The new species is similar to *B. prima* KOTTELAT, 1994 of the *B. picta* species group (WITTE & SCHMIDT 1992, TAN & KOTTELAT 1998b, SCHMIDT 1996). In addition to *B. pallida*, *B. prima* KOTTELAT, 1994 and *B. picta* VALENCIENNES in CUVIER & VALENCIENNES, 1846, this group includes *B. taeniata* REGAN, 1910, *B. editbae* VIERKE, 1978, *B. simplex* KOTTELAT, 1994 and *B. falx* TAN & KOTTELAT, 1998. *Betta pallida* differs from *B. picta*, *B. falx* and *B. simplex* by having 26 or 27 total anal fin rays (*versus* 21 to 24) and from *B. taeniata* by a longer head (34.5 to 36.2% SL *versus* 30.3 to 34.5% SL) and a smaller size (40 mm SL, *versus* >60 mm SL). It differs from *B. editbae* by a more

prominent pattern of the longitudinal stripes (fainter and disrupted into small dots in *B. editbae*), a smaller size (40 mm SL *versus* 60 mm SL) and usually 26 *versus* usually >26 anal fin rays. Further it differs from all the remaining species of the *B. picta* species group (except *B. prima*) by the absence of prominent dark anal and caudal fin margins.

5. Acknowledgement

We would like to thank NUTSARA THANTAHA (Udon Thani, Thailand) for the assistance during the collection of the types. We are thankful to WOLFGANG STAECK, Berlin, HANS-JOACHIM PAEPKE, Potsdam, HARRO HIERONIMUS, Solingen, and BERND DEGEN, Ruhmannsfelden, for the critical reading of the manuscript and helpful suggestions. Further we thank A. ZARSKE, (MTD) for the loan of the specimens.

6. Literatur

- KOTTELAT, M. 1994. Diagnoses of two new species of fighting fishes from Thailand and Cambodia (Teleostei: Belontiidae). Ichthyol. Explor. Freshwaters 5, 297-304.
- SCHMIDT, J. 1996. Vergleichende Untersuchungen zum Fortpflanzungsverhalten der *Betta*-Arten (Belontiidae, Anabantoidae). Bibliothek Natur & Wissenschaft Bd. 7, Solingen.

- TAN H. H., & M. KOTTELAT. 1998a. Two new species of *Betta* (Teleostei: Osphronemidae) from the Kapuas basin, Kalimantan Barat, Borneo. Raffles Bull. Zool. 46, 41-51.
- TAN H. H., & M. KOTTELAT. 1998b. Redescription of *Betta picta* (Teleostei: Osphronemidae) and description of *B. falx* sp. n. from central Sumatra. Rev. Suisse Zool. 105, 557-568.
- WITTE, K., & J. SCHMIDT 1992. *Betta brownorum*, a new species of anabantoids (Teleostei: Belontiidae) from northwestern Borneo, with a key to the genus. Ichthyol. Explor. Freshwaters 2, 305-330.

Eingegangen: 04. Juli 2004

Angenommen: 10. August 2004