

Short Communication

A new record of the dwarf snakehead, *Channa ornatipinnis* Britz 2007 (Perciformes: Channidae) from India

Sivaramapillai Muthukumar*¹, Muthukumarasamy Arunachalam², Uthandakalaipandiyam Ramesh¹, Murugiah Umamaheswari², Alagappan Vanarajan²

¹Department of Molecular Biology, School of Biological Sciences, Madurai Kamaraj University, Madurai, India.

²Sri Paramakalyani Centre for Environmental Sciences, Manonmaniam Sundaranar University, Alwarkurichi, India.

Abstract: The snakehead of the family are represented 33 species from Asia of which two species *Channa ornatipinnis* and *C. pulchra* were recently described from Myanmar. The recent record of *C. ornatipinnis* from Tuivawl River, Tuivawl village in Champhai district, Mizoram, India is of ichthyological interest

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Introduction

The snakeheads of the family Channidae comprises of two genera, one in Asia (*Channa*) and the other in Africa (*Parachanna*). The genus *Channa* comprises of 33 species in Asia (Courtenay and Williams, 2004; Serrao, 2014). In India, 12 species including *Channa amphibeus* (McClelland 1845), *C. auranti-maculata* (Musikasinthorn 2000), *C. barca* (Hamilton 1822), *C. bleheri* (Vierke 1991), *C. diplogramma* (Day 1865), *C. gachua* (Hamilton 1822), *C. marulius* (Hamilton 1822), *C. melano-stigma* (Geethakumari & Vishwanath 2011), *C. orientalis* (Bloch & Schneider 1801), *C. punctata* (Bloch 1793), *C. stewartii* (Playfair 1867), *C. striata* (Bloch 1793) are reported. Fishes within this genus are characterized by an elongated cylindrical body, long and entirely soft-rayed dorsal and anal fins, a large mouth with well-developed teeth on both upper and lower jaws, and an accessory air-breathing apparatus known as the suprabranchial organ (Musikasinthorn, 1998, 2003). Snakeheads are of considerable interest as food fish and in aquarium trade and also as predators (Courtenay and Williams, 2004).

The Dwarf snakehead, *Channa ornatipinnis*, was described from Waloun Chaung in Rakhine state of central Myanmar by Britz (2007). Due to lack of information on its distribution, biology and population trends, this species was assessed as Data Deficient (Britz, 2010). During recent field trips in Tuivawl stream of Champhai district, Mizoram state in India, we collected 10 specimens of a snakehead that matched *C. ornatipinnis*, in its morphometric and meristic characters. Therefore, this paper reports extension of its range of occurrence to India.

Materials and Methods

Fish samples were collected from Tuivawl stream in Champhai District of Mizoram state during May 2012 using gill nets and cast nets, and preserved in 10% formalin. Voucher specimens are currently deposited in the Manonmaniam Sundaranar University Museum of Natural History (MSUMNH), Alwarkurichi, Tamil Nadu, India, and specimens were preserved in collections of M. Arunachalam, (CMA). Morphometric measurements and meristic counts generally follow Hubbs and Lagler (1964) and Musikasinthorn (1998). A total of 10 individuals

* Corresponding author: Sivaramapillai Muthukumar
E-mail address: smk2882@gmail.com



Figure 1. Lateral view of *Channa ornatipinnis*, MSUMNH 60, 132.52 mm SL), Tuivawl River, Mizoram, India.



Figure 2. Natural habitat of *Channa ornatipinnis* in Tuivawl River, Tuivawl village, Champhai District, Mizoram, India.

in the range of 98.44 to 161.77 mm SL were measured.

Abbreviations: D, dorsal fin; P, pectoral fin; C, caudal fin; HL, head length; SL, standard length.

Examined materials: MSUMNH 60, 8, 98.44-161.17 mm SL. - CMA 20, 2, 112.45-120.72 mm SL, India, Mizoram, Tuivawl river, Tuivawl village, Champhai District (23°48'16.4"N, 92°05'44"E), M. Arunachalam, M. Raja, C. Vijayakumar and S. Nandagopal. 06 May 2012.

Results and Discussion

Description : Body elongate, round in cross section anteriorly, laterally compressed at caudal peduncle, head large and wider in the opercular region with 10-20 black spots on each side of cheeks and several irregular spots scattered on opercular region to caudal base. Mouth large, maxilla extending posteriorly beyond jaw angle, lips fleshy, jaws with

multiple rows of sharp, pointed minute teeth.

Dorsal fin rays 34(8)-36(2), anal fin rays 23(6)-24(4), pectoral fin rays 16, pelvic fin rays 6, principal caudal fin ray's 10-11, cheek scales 4(4)-5(6), lateral line scales 46(1)-48(9), scale rows above lateral line 4.5, below lateral line 7.5, circumpeduncular scales 28, circumferential scales 31(4)-32(6), pre-dorsal scales 14(2)-15(8), transverse breast row scales 9(3)-10(7), anal scale rows 1, pre-anal scales 20(8)-21(2), lateral line scales dropping one row following 15-16th anterior most scales. A pair of maxillary barbel. Morphometric data of the examined specimens are listed in Table 1.

Coloration: Alcohol preserved specimens: dorsal surface of body dark grayish and ventral surface white grey, several small black irregular spots scattered on opercular region, cheek and body. Pectoral fins with 6-7 semicircular white bands alternating with black bands. Dorsal, anal and caudal

Table 1. Morphometric data of *Channa ornatipinnis* from Tuivawl River, Mizoram, India (n=10).

	Min	Max	Mean
Standard length (mm)	98.44	161.17	121.92
% of standard length			
Pre dorsal length	34.16	37.95	35.63
Pre anal length	47.49	50.34	48.99
Pre pelvic length	28.93	31.02	30.10
Pre pectoral length	25.69	29.98	28.85
Pectoral fin length	19.66	23.73	21.10
Pelvic fin length	9.03	12.50	11.04
Dorsal fin base length	52.47	56.63	54.95
Anal fin base length	39.53	41.62	40.73
Caudal fin length	18.19	21.79	20.73
Peduncle length	7.71	10.64	9.61
Peduncle depth	8.90	11.85	10.40
Occiput to dorsal origin	7.79	12.64	10.59
Occiput to pectoral insertion	11.35	16.51	14.26
Occiput to pelvic insertion	13.56	18.92	17.40
Body depth	13.79	18.87	16.75
Dorsal origin to pelvic insert.	14.03	18.06	16.10
Dorsal insert to pelvic insert.	53.60	59.77	57.24
Dorsal origin to pectoral insert.	12.44	18.54	14.97
Dorsal origin to anal origin	18.92	26.47	22.99
Dorsal insert to caudal base	6.64	8.91	7.73
Dorsal insertion to anal origin	35.12	45.07	41.92
Dorsal insert to anal insert.	9.56	19.39	12.63
Pectoral insert to pelvic insert.	5.09	9.62	7.68
Pectoral insert to anal origin	18.64	23.17	20.65
Pelvic insert to anal origin	16.19	20.16	17.48
Distance b/w pectoral fin to vent	17.26	23.88	21.81
Distance b/w pelvic fin to vent	17.68	21.60	18.80
Head length	34.36	37.53	36.17
% of head length			
Pre occipital length	83.96	89.93	86.65
Snout to opercle	88.16	94.84	91.71
Upper jaw length	34.13	44.90	39.02
Snout length	20.73	25.74	23.62
Pre nasal length	14.39	21.19	16.70
Orbit width	11.22	14.15	13.20
Inter orbital width	28.07	35.23	30.13
Inter nasal width	14.40	20.12	17.78
Head width	57.74	61.16	58.96
Head depth	37.68	45.36	42.02
Head depth at nostril	12.82	19.35	16.54
Head depth at pupil	27.26	32.49	29.93
Head depth at occiput	39.09	43.53	40.56

fins with dark grey to blackish with few white spots, pelvic fin reddish white with black marks.

Live coloration: (Fig. 1) dorsal side of the head greenish with golden orange, cheeks bluish grey with 15-20 bluish black spots, pectoral fin with red base and 6-7 semicircular white bands narrower than black bands, pelvic fin grayish brown with whitish margins. Dorsal fin origin with 3 black blotches. Dorsal, anal and caudal fins with reddish rays and

bluish grey membranes.

Habitat: The Tuivawl is a clear water third order stream with thick vegetation on its right and left banks (Fig. 2) and substrate comprised of boulders, pebbles and small proportion of sand. The microhabitat from where the fish were collected was mostly run with low flow with a side pool in the 100 m thalweg length. Two habitats were identified in the 100 m length with the density of *C. ornatipinnis*

occurred in pool and in the inflow and outflow of the pool. Velocity of the water was between 15 to 20 cm/s and the depth between 0.4-1.2 m. Collection of pebbles and gravels and sands was a major disturbance in the channel.

Remarks: Till date, there has been no documented record of the occurrence of *C. ornatipinnis* outside of the Rakhine State in central Myanmar and therefore the present record of the species from a stream in Mizoram state, India is of special interest.

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چکیده فارسی

نخستین گزارش ماهی سرماری دارف، *Channa ornatipinnis* Britz 2007 (سوف ماهی شکلان: خانواده ماهیان سرماری) از هندوستان

سیوارانا پیلای موتوکومار^{۱*}، موتوکوماراسامی آرونچالام^۲، اوتانداکالای پانندیان رامش^۱، موروگیاه اماماهسواری^۳، الاگاپیان واناراجان^۴

^۱گروه زیست‌شناسی مولکولی، مدرسه علوم زیستی، دانشگاه مادورای کامراج، مادورای، هندوستان.
^۲مرکز علوم محیطی سری پاراما کالایانی، دانشگاه مانونمانیام سوندارانار، الوار کوریچی، هندوستان.

چکیده:

خانواده ماهیان سرماری دارای ۳۳ گونه در آسیا می‌باشد و اخیراً دو گونه *Channa ornatipinnis* و *C. pulchra* از میانمار توصیف شده است. این مقاله نخستین گزارش حضور *C. ornatipinnis* از رودخانه تویواول، روستای تویواول منطقه چامپهای، میزورام هندوستان را به‌عنوان یافته جالب ماهی‌شناسی گزارش می‌نماید.

کلمات کلیدی: *Channa ornatipinnis*، نخستین گزارش، تویواول، هند.