

## SCHISTURA NILGIRIENSIS (MENON) IN SHARAVATHI RIVER BASIN, WESTERN GHATS, KARNATAKA

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web supplement

The Western Ghats is one of the hottest hotspots of biodiversity (Myers *et al.*, 2000) endowed with rare, endemic and threatened species of flora and fauna. Freshwater fishes form a major endemic vertebrate group in the Western Ghats after amphibians and reptiles (Gururaja, 2002). India reports 930 species of fresh water fish (Rema Devi, 2003) and 288 are from the Western Ghats. Of these 118 species are endemic to the Western Ghats and Sri Lankan region (Dahanukar *et al.*, 2004). This write up reports the range extension of *Schistura nilgiriensis* (earlier *Nemacheilus nilgiriensis*, Jayaram, 1999) from one of the west flowing rivers in the Western Ghats (Sharavathi river 13-15°N & 74-76°E).

### DIAGNOSIS

*Schistura nilgiriensis*, a small-sized, Endangered (Molur & Walker, 1998) and endemic fresh water fish of Western Ghats belongs to family Balitoridae (Image 1<sup>w</sup>). Five specimens were collected from a first order perennial stream of river Sharavathi at Niluvase (13°44'18"N & 75°06'30"E, 692m), Thirthahalli taluk, Shimoga district, Karnataka (Fig. 1) on 6 November 2003 at 18:30hr.

Since water was very shallow (Mean: 6.69cm, Range: 1.1-10.5cm) fishes were collected by dragging a 30x30cm cloth. The stream had rocky bottom, with meager flow. Width of the stream with flow ranged from 0.6-4.5m and water temperature was 23°C. One of the preserved specimen was deposited at Zoological Survey of India (Southern Regional Station, Chennai) on 9 December 2003 (Reg. No. F-7594 SRS/ZSI), and the remaining four are deposited at the Centre for Ecological Sciences field station, at Kumta, Karnataka.

### CHARACTERS

Total length is 48.18±3.5mm (range: 42.3-51.1), with uniform depth (Table 1). Barbules are well developed, thread like, six in number, four on the anterior and two on margins of the mouth. Body has 11-13 light brown bands with thin cream coloured interspaces. Lateral line is incomplete, extended till the tip of pectoral fin. Bright red colouration on the anal and dorsal fins was noticed. This colouration gets paler towards the margin. Menon (1999) describes of pelvic fins not reaching the anal opening, however collected specimen have pelvic fins reaching the anal opening.

### SPECIAL NOTES

Menon (1999) reported *S. nilgiriensis* from Pykara dam, Nilgiri

district, Tamil Nadu. Easa and Shaji (1997) recorded this species from Nilgiri Biosphere Reserve (10°45'-12°05'N & 76°10'-77°10'E). An earlier study (Shaji *et al.*, 1995) reported *S. nilgiriensis* from Kurukkathodu (11°49'-11°50'N & 75°49'-75°57'E), a stream of west flowing river Uruttipuzha in Aralam Wildlife Sanctuary, Kerala. All these earlier reports were restricted to the southern Western Ghats within 10-12°N & 74-77°E. The aerial distance calculated (using MapInfo Version 6.0 GIS software) between the new reports from Niluvase to Kurukkathodu is approximately 225km north-west and over 300km north-west of Pykara dam.

*Schistura nilgiriensis* was collected from the south-western part of the Sharavathi river basin which is rich with evergreen to semi-evergreen forests (tree species include *Mastixia arborea*, *Ventilago maderaspatana*, *Aglaiia sp.* and *Agrostistachys indica*). Stream flow monitoring of 28 months show perennial water in the streams in this part (western side least disturbed) compared to the eastern part of the river basin.

This highlights the ecological sensitivity and richness of the region. Presence of *S. nilgiriensis* in the Sharavathi river basin (Karnataka) is a range extension in west flowing river, central Western Ghats

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<sup>w</sup> See Image 1 in the web supplement at [www.zoosprint.org](http://www.zoosprint.org)



**Table 1. Body measurements (in mm) of Schistura nilgiriensis (N = 5). Values in parenthesis denote the range.**

Parameter	Mean±Sd
Total length	48.18±3.5 (42.3 – 51.1)
Head length	8.34±0.4 (7.8 – 8.7)
Body depth	5.78±0.8 (4.7 – 6.5)
Diameter of eye	1.58±0.2 (1.4 – 1.8)
Inter-orbital distance	2.7±0.4 (2.0 – 3.0)
Snout length	3.7±0.3 (3.5 – 4.0)



**Figure 1. Map of Western Ghats showing new location (Niluvase) and earlier reports**



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