

SCOLOPENDRIDAE (*CHILOPODA*) OF WESTERN GHAT WITH SOME FIRST RECORDS FROM THE STATE OF MAHARASHTRA, INDIA

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INTRODUCTION

Western Ghat, a rich heritage of biodiversity, forms a vast array of tropical evergreen forests, with the patches of mixed to dry deciduous, having red laterite and black soil, provides the unique home-sites for centipedes, in the moist soil as well as in the semi-arid zones and habitats at hill ranges. However, as a result of human invasion, through urbanization and rapid constructions, centipedes are under threat.

The Scolopendridae, in India, is represented by two subfamilies, 3 tribes, 8 genera comprising about 70 species.

During the course of faunistic survey of Ahmad Nagar, Raigad, Kolhapur, Sangli and Pune districts, specimens of *Scolopendra (Trachycormocephalus) indiae* (Chamberlin),\* *S. (T) mirabilis* (Porat)\* and *Scolopendra andhrensensis* Jangi and Dass, were collected. Hitherto the first two species were restricted to Indo—Gangetic belt (Khanna, 1977, Vazirani and Khanna 1977, Jangi and Das 1984) and the last was originally described by Jangi and Dass (1984) from Vishakhapatnam district, Andhra Pradesh. The present account constituting the first record of three species adds significantly to the Scolopendrid Fauna of Western Ghat, and thus raising the number of species for W. G. to 41. The details of the specimens collected, are given below.

1. *Scolopendra indiae* (Chamberlin) 1914

*Material examined* : INDIA, MAHARASHTRA, Raigad district, 50 kms E. of Mangaon, 6-XII-1987, 1 ex. Dr. D. B. Bastawade, Ahmad Nagar district, Chincholi Village, 8-IX-1988, 1 ex., Dr. R. H. Kamble.

*Diagnostic characters* : Lateral emargion only on the 21st tergite.

*Variations noticed* : Length 50 mm. (Vs. 23 mm.). The claw of anal legs without tarsal spur.

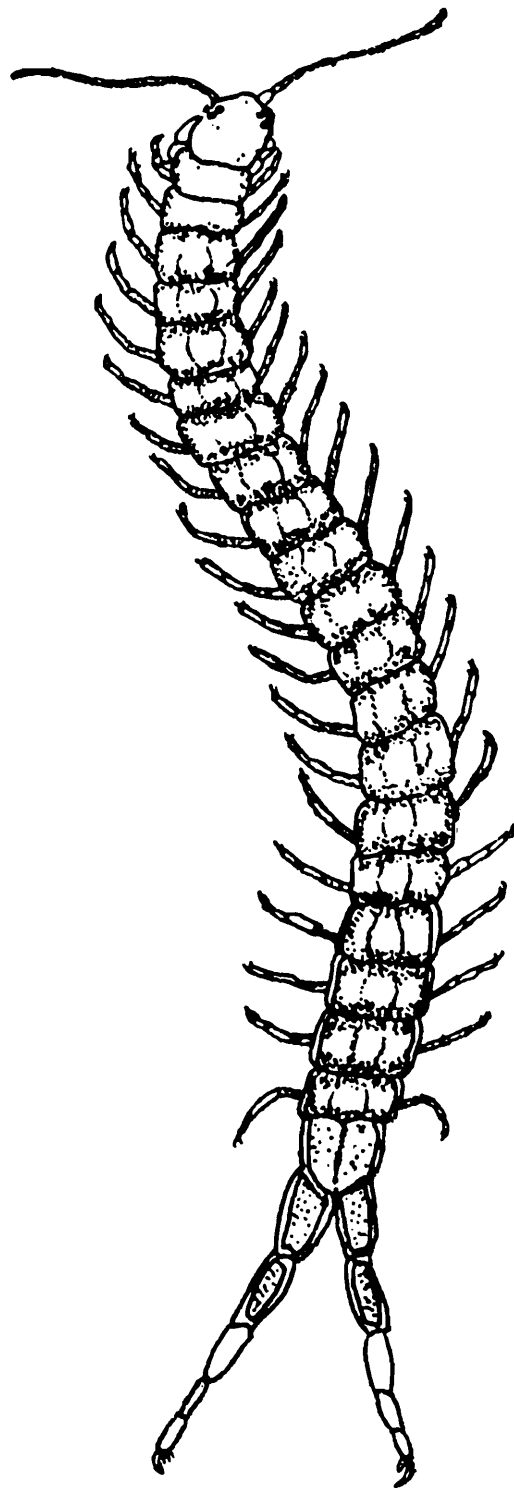
*Distribution* : ORISSA : Jeypore dist. RAJASTHAN ; Jodhpur dist. MAHARASHTRA : Ahmad Nagar and Raigad dist.

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\* Lewis (1986) Synonymised the genus *Trachycormocephalus* under *Scolopendra*.

2. *Scolopendra mirabilis* (Porat) 1876

*Material examined* : INDIA, MAHARASHTRA, Sangli district, Machundi Village, 20 kms. E. of Jat-Umadi Road, 19-X-1984, 1 ex., Dr. A. S. Mahabal.



Scolopendra amazonica Bucherl

FIG. 1

*Diagnostic characters* : Lateral emargination on the tergites 17th-21st.

*Variations noticed* : The claw of anal legs with a spur.

*Distribution* : RAJASTHAN : Nagpur dist. Jodhpur ; Asop Village, Bharatpur, MAHARASHTRA : Sangli district.

The base of dental plate on the coxosternum of *S. indiae* (Chamberlin) and *S. mirabilis* (Porat) noticed hairy with median longitudinal furrows as was observed by Khanna (1977),

### 3. *Scolopendra andhreshis* Jangi & Dass 1984

*Material examined* : INDIA, MAHARASHTRA, Kolhapur district, Kadamkai khind, near village Tamdalge, 15-VIII-1989, 1 adult female, Dr. S. G. Patil ; Pune district, Vetil hill, 22-IX-1983, 1 ex, Dr. D. B. Bastawade.

*Diagnostic characters* : The cephalic plate bearing coarse pit like puncta, lack of tarsal spur on the 20th pair of walking legs, prefemur of anal legs ventrally having 1-6 spines.

*Variations noticed* : Length 80 mm. (Vs. 26 mm.)

Antennae : Composed of 19 articles instead of 17, six basal segments glabrous. Cephalic plate : In Kolhapur specimen, puncta, on anterior 1/3 portion (Vs 2/3). Tergites : Lateral emargination starts on 15th (Vs 18th). Maxillipedes : out of six median teeth, inner 2 (Vs 3) partly united. Toothed femoral process present only at one side in the Kolhapur specimen.

*Distribution* : ANDHRA PRADESH : Visakhapatnam district, MAHARASHTRA : Kolhapur and Pune districts.

## THE SCOLOPENDRID CENTIPEDES OF WESTERN GHAT

Family : SCOLOPENDRIDAE

Subfamily : SCOLOPENDRINAE

Tribe : **Scolopendrini**

<i>Sl. No.</i>	<i>Species</i>	<i>Distribution in W. G. Belt</i>
1.	<i>Scolopendra amazonica</i> Bucherl	Maharashtra, Goa, Karnataka, Kelala, T. N.
2.	<i>Scolopendra morsitans</i> Linn.	Maharashtra, Karnataka, Bangalore, Tamil Nadu.
3.	<i>Scolopendra hardwickei</i> Newport	Maharashtra, Karnataka, Karwar, Mysore.
4.	<i>Scolopendra subspinipes</i> Leach	Tamil Nadu : Cochin.

<i>Sl. No.</i>	<i>Species</i>	<i>Distribution in W. G. Belt</i>
5.	<i>Scolopendra subspinipes dehani</i> Brandt	Karnataka : Karwar.
6.	<i>Scolopendra andhrensensis</i> Jani & Dass,	Maharashtra : Pune, Kolhapur.
7.	<i>Scolopendra punensis</i> Jangi & Dass	Maharashtra, Pune.
8.	<i>Scolopendra elloreensis</i> Jangi & Dass	Maharashtra, Aurangabad, Ellora.
9.	<i>Scolopendra indiae</i> (Chamberlin)	Maharashtra, Ahmad Nagar, Raigad.
10.	<i>Scolopendra mirabilis</i> (Porat)	Maharashtra, Sangli.
11.**	<i>Arthrorhabdus jonesii</i> Verhoeff	Kerala : Trivendrum.
12.	<i>Cormocephalus westwoodi dispar</i> Porat	Deccan area.
13.	<i>Cormocephalus macrosestrus</i> Attems	Maharashtra.
14.	<i>Cormocephalus pygmaeus</i> (Pocock)	Maharashtra : Nasik, Karnataka : Kanara.
15.	<i>Cormocephalus nudipes</i> Jangi & Dass	Karnataka : Mangalore, Karwar.
16.	<i>Cormocephalus pilosus</i> Jangi	Maharashtra, Karnataka, Goa.
17.	<i>Cormocephalus denticaudus</i> Jangi & Dass	Maharashtra, Satara, Panchgani.
18.	* <i>Cormocephalus nigrificatus</i> Verhoeff	Kerala : Trivendrum.
19.	<i>Cormocephalus pseudonudipes</i> Jangi & Dass	Maharashtra : Nasik.
<b>Tribe : Asanadini</b>		
20.	<i>Asanada brevicornis</i> Meinert	Maharashtra.
21.	<i>Asanada agharkari</i> (Gravely)	Maharashtra : Satara Koyna Valley.
22.	<i>Asanada sokotrana</i> (Pocock)	Maharashtra : Aurangabad ; Pune ; Kerala : Palghat.
23.	<i>Asanada indica</i> Jangi & Dass	Maharashtra.
<b>Subfamily : OTOSTIGMINAE</b>		
<b>Tribe : Otostigmini</b>		
24.	* <i>Digitipes gravelyi</i> Jangi & Dass	Kerala ; Palghat.
25.	<i>Digitipes coonoorensis</i> Jangi & Dass	Tamil Nadu : Nilgiri, Maharashtra : Sindhudurg.
26.	<i>Digitipes indicus</i> Jangi & Dass	Maharashtra, Pune, Khandala Kerala : Palghat, Trichur.
27.	<i>Digitipes chhotanii</i> Jangi & Dass	Maharashtra : Pune, Khandala.

<i>Sl. No.</i>	<i>Species</i>	<i>Distribution in W. G. Belt</i>
28.	<i>Digitipes barnabasi</i> Jangi & Dass	Maharashtra.
29.	<i>Otostigmus orientalis</i> Porat	Maharashtra, Bombay, Pune, Bhorghat.
30.	<i>Otostigmus politus</i> Karsch	Kerala, Palghat.
31.	* <i>Ethmostigmus coonooranus</i> Chamberlin	Tamil Nadu : Nilgiri
32.	* <i>Ethmostigmus tristris</i> (Meinert)	Tamil Nadu : Nilgiri
33.	* <i>Ethmostigmus platycephalus platycephalus</i> (Newport)	Maharashtra, Kolhapur, Kerala : Malbar coast, T. N. Nilgiri.
34.	<i>Ethmostigmus p. spinosus</i> (Newport)	Karnataka : Mysore, Maharashtra : Satara, Mahabaleshwar.
35.	* <i>Ethmostigmus p. cribrifer</i> (Gervais)	Karnataka : Mysore.
36.	<i>Rhysida lithobioides trispinosus</i> Jangi & Dass	Maharashtra, Karnataka.
37.	<i>Rhysida longipes simplicor</i> Chamberlin	T. N. : Coonoor.
38.	<i>Rhysida longipes longipes</i> (Newport)	Goa, Karnataka : Coorg.
39.	<i>Rhysida nuda subnuda</i> Jangi	Maharashtra, Karnataka, Kerala.
40.	<i>Rhysida nuda immarginata</i> (Porat)	Maharashtra : Pune, Khandala.
41.	<i>Rhysida crassispina</i> Kraepelin	Maharashtra : Raigad, Matheran.

*Source* : Pocock (1892), Gravely (1910), Attams (1930), Jangi & Dass (1980 a, b), Jangi (1966), Jangi & Dass (1984), Khanna & Tripathi (1987), Koch (1984), (Unpublished record).

\* Endemic, \*\* Rare in Asia.

*Key to the known Indian species of Scolopendra*

1a	Head with basal plate.	...	2
1b	Head without basal plate.	...	4
2a	Cephalic plate with para median furrows, coxosternal plate of maxillipedes with furrows.	...	3
2b	Cephalic plate bearing coarse pit like puncta, coxosternal plate of maxillipedes without furrow, 20th walking leg without tarsal spur and anal leg prefemur, ventrally having 1-6, spines, (excluding prefemoral process) ...		<i>S. andhrensensis</i> Jangi & Dass

3a	Tergites 17th 21st laterally emarginated.	...	<i>S. mirabilis</i> (Porat)	
3b	Only the Tergite 21st laterally emarginated.	...	<i>S. indiae</i> (Chamberline))	
4a	Head with distinct median longitudinal furrow.	...		5
4b	Head without median longitudinal furrow, grooves or sulci may or may not be present on the head.	...		6
5a	Coxopleural processes of anal leg segment simply pointed without spinules.	...	<i>S. maziibii</i> (Gravely)	
5b	Coxopleural processes of anal leg segment tipped with spines.	...	<i>S. occidentalis</i> (Attems)	
6a	Grooves or sulci on the head confined to the posterior half. ...			7
6b	Grooves or sulci absent on the head, 1st tergite with or without transverse collar sulcus.	...		8
7a	Coxosternal plate of the maxillipedes with net work of fine sulci on each side, 21st sternite, tapering with straight posterior margin.	...	<i>S. nudus</i> (Jangi & Dass)	
7b	Coxosternal plate of the maxillipedes with two posteriorly divergent sulci, 21st sternite tapering with rounded posterior margin.	...	<i>S. paranudus</i> (Khanna & Tripathi)	
8a	1st tergite with transverse collar sulcus.	...	<i>S. valida</i> H. Lucas	
8b	1st tergite without transverse collar sulcus.	...		9
9a	Anal leg prefemur, femur and tibia in adult male dorsally flat and emarginated and prefemur in juveniles and adults of both sexes carrying ventrally 9 spines in 3 longitudinal rows.	...		10
9b	Anal legs without such secondary sexual character.	...		11
10a	20th walking legs with tarsal spur.	...	<i>S. morsitans</i> Linn.	
10b	20th walking legs without tarsal spur.	...	<i>S. amazonica</i> Bucherl	
11a	Alternate brown or dark green, brownish yellow tergites indicating banded appearance of the trunk, anal leg prefemur without spines.	...	<i>S. hardwicki</i> Newport	
11b	No colour pattern, anal leg prefemur with or without spines ventrally. ...			12
12a	Anal leg prefemur (excluding prefemoral process) bearing 1-6 spines. ...			13

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|-----|---|-----|------------------------|---------------|
| 12b | Anal leg prefemur (excluding prefemoral process) bearing as many as 26 spine. | ... | <i>S. elloreensis</i>  |               |
|     |   |     |                        | Jangi & Dass  |
| 13  | 20th walking legs with tarsal spur, cephalic plate smooth or rugose.          | ... |                        | 14            |
| 14a | Cephalic plate smooth.  | ... | <i>S. subspiniipes</i> |               |
|     |   |     |                        | Leach         |
| 14b | Cephalic plate rugose.  | ... | <i>S. punensis</i>     |               |
|     |   |     |                        | Jangi & Dass. |

#### SUMMARY

The present paper deals with an annotated list of the Scolopendrid centipedes of Western Ghat with the first record of three species of the genus *Scolopendra*, collected, during the course of faunistic survey of Ahmad Nagar, Raigad, Kolhapur, Sangli and Pune districts of Maharashtra.

#### ACKNOWLEDGEMENTS

I am grateful to the Director, Zoological Survey of India, Calcutta, and to Dr. G. M. Yazdani, Sci-SE, O/c, W. R. S, Pune, for the facilities.

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\*Not consulted in original.