

**FAUNA OF PROTECTED AREAS - 16
ON A COLLECTION OF CENTIPEDES
FROM NAGARJUNASAGAR-SRISAILAM
TIGER RESERVE, ANDHRA PRADESH**

**K. Thulsi Rao ¹, B.E. Yadav ², M. Prudhvi Raju ³,
S.M. Maqsood Javed ⁴ and I. Siva Rama Krishna ⁴**

¹ Assistant Conservator of Forests, Eco-Research & Monitoring Laboratories, Biodiversity, ³ Conservator of Forests & Field Director, ⁴ Research Assistant, Project Tiger, Srisailam, Kurnool Dist., Andhra Pradesh 518102, India

² Zoological Survey of India, Western Regional Station, Pune, Maharashtra 411044, India
Email : ¹ thulsirao@yahoo.co.in

web supplement

The study area is one of the biggest protected areas (Fig. 1) of our country *i.e.*, Nagarjunasagar-Srisailam Wildlife Sanctuary or more popularly known as Nagarjunasagar-Srisailam Tiger Reserve (N-STR), spreads over an area of 3,568km² situated in the Nallamalais - an offshoot of Eastern Ghats of Andhra Pradesh. The sanctuary lies in the Deccan peninsular plateau (15°53'-16°43'N & 78°30'-79°28'E). Most of this sanctuary is hilly terrain with plateaus, ridges, gorges and deep valleys which support tropical mixed dry deciduous forests with an under growth of bamboo and grass.

Attems (1930) from Austria conducted a comprehensive study on Centipedes of world. In India there is a scanty literature on centipedes except monumental work of Jangi & Dass (1984) and the latest updated account by Khanna (2001). However, centipedes from NSTR, Andhra Pradesh are little known. Hence the present paper.

Centipedes recorded in NSTR until date

Phylum: Arthropoda
Class: Chilopoda
Order: Scolopendromorpha
Family: Scolopendridae
Subfamily: Scolopendrinae
Tribe: Scolopendriini
Genus: *Scolopendra* Linnaeus, 1758

1. *Scolopendra amazonica* (Bucherl) (Image 1*)
1946. *Scolopendra morsitans amazonica*, Bucherl, *Mem. Inst. Butantan*, 19: 135-137. (Type Locality: Amazona (Brazil).
1984. *Scolopendra amazonica*, Jangi & Dass, *J. Scient. Indl. Res.*, 43(2): 27-54.
2001. *Scolopendra amazonica*, Khanna, *Ann. For.*, 9(2): 199-219.
Material Examined: 3 males & 1 female, 18.i.03, Chinnarutla, N-STR, Prakasham District, coll. K. Thulsi Rao.
Distribution: Cosmopolitan.
Remarks: 5 specimens were collected.

2. *Scolopendra morsitans* Linnaeus
1758. *Scolopendra morsitans* Linnaeus, *Syst. Nat.*, Ed.10: 637 (Type Locality: India).
1903. *Scolopendra morsitans*, Kraepelin, *Mitt. Mus.*, Hamburg, 20: 250.
Material examined: 1 male, 28.i.03, Shikharam, N-STR, Kurnool District, coll. I. Siva Rama Krishna.
Distribution: Cosmopolitan.
Remarks: These are robust specimens. The 20th pair of legs has tarsal spur.

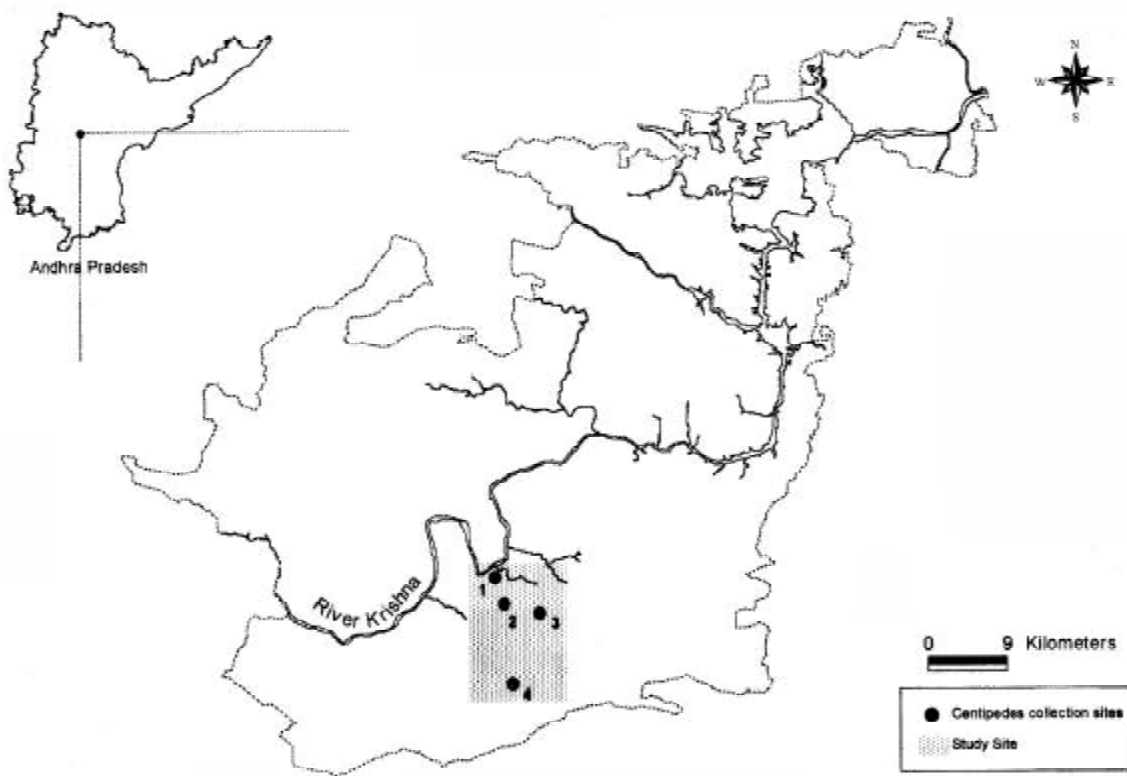


Figure 1. The map showing the study area in Nagarjunasagar-Srisailam Tiger Reserve.
1 - Sundipenta (16°48'17"N & 78°54'19"E); 2 - Shikharam (16°03'10"N & 78°55'19"E);
3 - Chinnarutla (16°02'86"N & 78°57'20"E); 4 - Thummalabailu (15°57'20"N & 78°55'20"E).

* See Images 1-4 in the web supplement at www.zoosprint.org

3. *Scolopendra hardwickei* Newport (Image 2nd)

1844. *Scolopendra hardwickei*, Newport, *Ann. Nat.*, 13: 96.

1903. *Scolopendra subspinipes* var. *hardwickei*, Kraepelin, *Mitt. Mus.*, Hamburg, 20: 262.

Material Examined: 3 males & 2 females, 2.viii.03, Sundipenta, N-STR, Kurnool District, coll. S.M. Maqsood Javed.

Distribution: India, Sri Lanka, Sumatra (Indo-Malayan).

Remarks: First record for Nallamalais, Eastern Ghats. These are brilliantly coloured, banded specimens. Commonly known as Tiger Centipede.

Genus: *Cormocephalus* Newport, 1844

4. *Cormocephalus dentipes* Pocock, 1891 (Image 3rd)

1891. *Cormocephalus dentipes*, Pocock, *Ann. Nat.*, *Hist. Ser.*, 6,7: 221 (Type locality: Bengal, India).

1984. *Cormocephalus pseudonudipes*, Jangi & Dass, *J. Scient. Indl. Res.*, 43(2): 37.

Material examined: 1 female, 2.viii.03, Sundipenta, N-STR, Kurnool District, coll. K. Thulsi Rao.

Distribution: India: Andaman & Nicobar Islands, Andhra Pradesh, Bihar, Himachal Pradesh, Meghalaya, Mizoram, Madhya Pradesh, Orissa, West Bengal, Uttar Pradesh and Uttaranchal.

Remarks: First record for Nallamalais, Eastern Ghats.

Tribe: Asanadini

Genus: *Asanada* Meinert, 1886

5. *Asanada maligii* Jangi & Dass, 1984 (Image 4th)

1984. *Asanada maligii* Jangi & Dass, *J. Scient. Indl. Res.*, 43 (2): 37-54. (Type locality: Nalagonda District, Andhra Pradesh)

Material examined: 1 female, 12.iv.03, Thummalabailu, N-STR, Prakasam District, coll. I. Shiva Rama Krishna.

Distribution: India: Andhra Pradesh and Maharashtra.

Remarks: First record for Nallamalais, Eastern Ghats.

Subfamily: Otostigminae

Tribe: Otostigmini

Genus: *Rhysida* Wood, 1862

6. *Rhysida lithobioides trispinosus* Jangi & Dass, 1984

1984. *Rhysida lithobioides trispinosus* Jangi and Dass, *J. Scient. Indl. Res.*, 43(2): 27-54. (Type locality: Hill behind Film Institute, Pune, Maharashtra).

Material examined: 1 female, 13.iv.03, Sundipenta, N-STR, Kurnool District, coll. K. Thulsi Rao.

Distribution: India: Maharashtra.

Remarks: Coxopleural process tipped with three spines. First record for Nallamalais, Eastern Ghats.

REFERENCES

Attems, C. (1930). *Scolopendromorpha*. Das Tierreich 54(2): 1-308.

Jangi and C.M.S. Dass (1984). *Scolopendridae of the Deccan*, Journal of Scientific and Industrial Research 43(2): 27-54.

Khanna, V. (2001). A checklist of the Indian species of centipedes (Chilopoda: Scolopendromorpha). Annual Forester 9(2): 199-219.

ACKNOWLEDGEMENT

The authors are very much thankful to Sri S.K. Das, IFS, Prl Chief Conservator of Forests, Sri Hitesh Malhotra, IFS, Addl. Prl. Chief Conservator of Forests (WL), Sri A.V. Joseph IFS, Chief Conservator of Forests (WL) A.P, Hyderabad for constant encouragement and sustained support. We are also grateful to Dr. Rajesh Gopal, IFS, Inspector General of Forests and Director Project Tiger and the MoEF, New Delhi, for their consistent funding support and encouragement. We gratefully acknowledge our thanks to Dr. Anil S. Mahabal, Scientist-E and Officer-in-Charge and Dr. D.B. Bastawade, Assistant Zoologist, Z.S.I, WRS, Pune for extending facilities.



FAUNA OF PROTECTED AREAS - 17 SOME SPECIES OF PRAYING MANTIDS (INSECTA: MANTODEA) FROM NAGARJUNASAGAR-SRISAILAM TIGER RESERVE, ANDHRA PRADESH

K. Thulsi Rao ¹, H.V. Ghate ², M. Prudhvi Raju ³,
S.M. Maqsood Javed ⁴ and I. Siva Rama Krishna ⁴

¹ Assistant Conservator of Forests, Eco-Research & Monitoring Laboratories, Biodiversity, ³ Conservator of Forests & Field Director, ⁴ Research Assistant, Project Tiger, Srisailam, Kurnool Dist., Andhra Pradesh 518102, India

² Department of Zoology, Modern College, Pune, Maharashtra 411005, India

Email: ¹thulsirao@yahoo.co.in

web supplement

Mantid fauna of India consists of over 160 species, included under some 68 genera (Mukherjee *et al.*, 1995). A couple of genera and species have since been synonymized in recent work (Ehrmann, 2002). It is apparent from the work recently published on Mantodea of India, that distribution records of most mantids is inadequate and that, much exploration is necessary in Eastern and Western Ghats to understand mantid diversity and distribution patterns. Since mantids are predatory insects with a very useful role in the ecosystems, it is necessary that a thorough survey of mantids is carried out in various parts of India.

We recently carried out a survey of mantids under All Taxa Biodiversity Inventory, in Nagarjunasagar-Srisailam Tiger Reserve 15°53'-16°43'N & 78°30'-79°28'E Andhra Pradesh. It is an area with more or less scrub vegetation (typical southern tropical mixed dry deciduous) and southern tropical moist deciduous forest types intermingled with scrub (Champion & Seth, 1968), with a rainfall of about 900-1000mm. The climate is generally hot and dry with maximum temperatures rising up to 45°C during May and dropping down to 8°C in December. This is only a preliminary report as a major survey of various other animals is being carried out and the activity will persist over a period of 2 years. So far 14 genera and 16 species of mantids are known from Andhra Pradesh (Mukherjee *et al.*, 1995).

Mantids were collected at various places using insect net or by hand-picking and were dry preserved using standard entomological techniques, at the Andhra Pradesh Forest Department's Field Museum (Eco-research and Monitoring Laboratories) in the headquarters of Nagarjunasagar-Srisailam Tiger Reserve at Sundipenta, Kurnool district. The specimens were identified with the help of keys given in Mukherjee *et al.* (1995) and are listed here. Asterisk (*) indicates first record for Andhra Pradesh.