

**REPORT ON THE MILLIPEDE FAUNA OF SOUTH
ARCOT DISTRICT, TAMILNADU**

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INTRODUCTION

South Arcot district lies in the northeastern part of Tamilnadu State, between 11°11' and 12°35' and 78°38' 80°E and covers an area of 13355 sq. km. As there is neither a comprehensive account on the Millipede fauna of this district available in the district Gazetteer, nor is the work of Attems (1936) complete, the authors carried out an extensive survey of the district in 1993-94 under the District Survey Programme of Southern Regional Station, Zoological Survey of India, Madras, Tamilnadu to study the Millipedes of this area. Collections were made from 31 different localities (Fig. 1). A total of 1214 specimens belonging to 2 orders, 2 families and 4 species of Millipedes were collected and identified through this study. The present study is of use to improve our knowledge on the Millipede fauna of South Arcot district. These species, the first to be reported from the region undoubtedly represent but a fraction of the millipede fauna occurring there. The identification and classification of species basically are after Hoffman, 1982.

List of Collection Stations :

TINDIVANAM TALUK :

1. Vedur dam
2. Iyyanpuram
3. Kumarapuram reserve forest

VANUR TALUK :

4. Thenkodipakkam
5. Nallavur
6. Ennarpalayam

CUDDALUR TALUK :

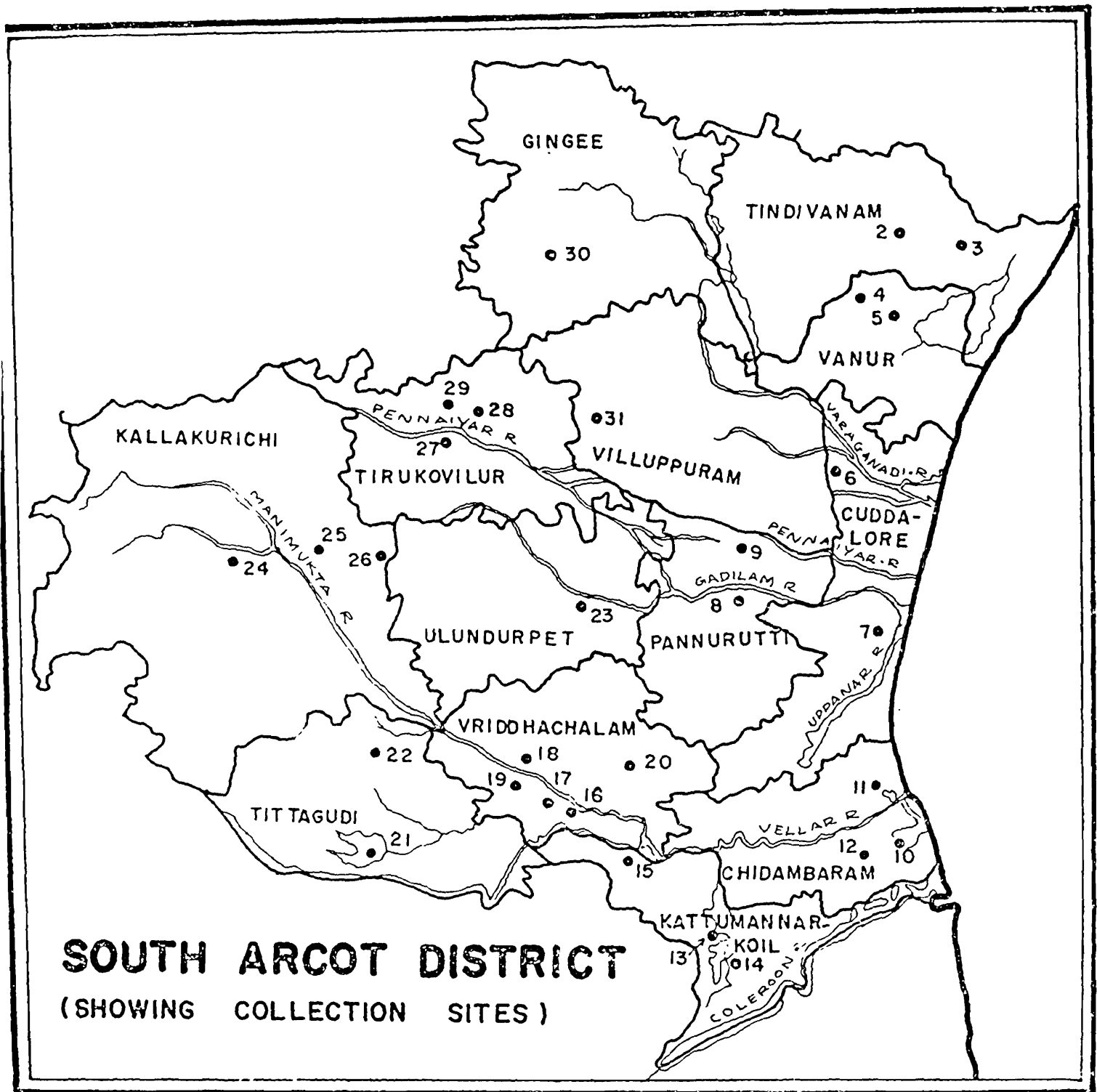
7. Murukespetai

PANNURUTTI TALUK :

8. Gadilam river
9. Pulavunur

CHIDAMBARAM TALUK :

10. Killai
11. Portonova
12. Chidambaram



KATTUMANNARKOVIL TALUK :

- 13. Veeranam
- 14. Thiruchinnapuram
- 15. Anjanakuppam

VRIDDHACHALAM TALUK :

- 16. Miralur
- 17. Sukiranur
- 18. Vridhachalam
- 19. K. Ilamangalam
- 20. Old Neyveli

TITTAGUDI TALUK :

21. Wellington reservoir
22. Periyanesalur
23. Sendamangalam

KALLAKURICHI TALUK :

24. Gomuki dam
25. Madur village
26. Rshivandiyam

TIRUKOVILUR TALUK :

27. Thirukkivilur
28. Marudur village
29. Thapovanam

GINGEE TALUK :

30. Kannanakuppam

VILLUPPURAM TALUK :

31. Mambalapattu

SYSTEMATIC ACCOUNT

Order : SPIROBOLIDA

Family : PACHYBOLIDAE

Xenobolus acuticonus Attems

1936. *Xenobolus acuticonus*, Attems, *Mem. Indian, Mus.*, 11 : 133-323.

1959. *Xenobolus acuticonus*, Nata rajan, *J. zool. Soc. India*, 11 (2) : 91-101.

Local name : Chikapu Attai, Tamil.

Material examined : 15 exs., Vedur dam, 8.1.94 ; 3 exs., Thenkodipakkam, 10.1.94 ; 5 exs., Nallavur, 10.1.94 ; 10 exs. Ennarpalayam, 12.1.94 ; 2 exs., Murukespettai, 13.1.94 ; 4 exs., Gadilam river bed at Pannuruti, 14.1.94 ; 14 exs., Pulavunur, 14.1.94 ; 1 ex., Killai, 15.1.94 ; 2 exs., Porto Nova, 15.1.94 ; 13 exs., Chidambaram, 17.1.94 ; 6 exs., Veeranam, 17.1.94 ; 6 exs. Thiruchinapuram, 17.1.94 ; 8 exs., Anjanakuppam, 18.1.94 ; 12 exs., Miralur, 18.1.94 ; 18 exs., Sukiranur, 18.1.94 ; 7 exs., Vridhachalam, 19.1.94 ; 18 exs., K. Ilamangalam, 19.1.94 ; 7 exs., Old Neyveli, 19.1.94 ; 9 exs., Wellington Reservoir, 20.1.94 ; 21 exs., Periyanesalur, 22.1.94 ; 4 exs., Gomuki dam, 23.1.94 ; 37 exs., Madur village, 24.1.94 ; 13 exs., Rshivandiyam, 24.1.94 ; 9 exs., Thirukkivilur, 25.1.94 ; 13 exs., Marudur village, 25.1.94 ; 13 exs., Kannanakuppam, 26.1.94 ; 27 exs., Thapovanam, 27.1.94 ; 16 exs., Mambalapattu, 28.1.94. Total : 298 exs.

Diagnostic features : Black, dorsum with a row of hour glass-like reddish spots ; head up to antennae, collum and antennae brown ; anal segment reddish brown.

Length 50 mm., width 4 mm., 50 segments. Sternite of anterior gonopods shorter than telopidite, V-shaped.

Distribution : Karnataka, Tamilnadu, Kerala & Pondicherry.

Remarks : Like *Ommatoiulus moreletti* of Australia (Baker 1978, 1979 a & b), this species is a nuisance pest in South Arcot district (Mary Bai 1995). Fairly large numbers of this species were collected from the roofs and from inside the houses. According to the villagers, these species invade their houses especially during winter and rainy season. They infest the food, stink and stain floors when quashed, spoil drinking water and occupy every crevice in the houses, even beddings. At times, babies and young children devour them accidentally resulting in the development of white patches on their skins, and cause associated health problems.

Order : SPIROSTREPTIDA

Family : HARPAGOPHORIDAE

Phyllogonostreptus nigrolabiatus Newport

1844. *Spirostreptus nigrolabiatus*, Newport, *Ann. Mag. Nat. Hist.*, 13 : 269.

1892. *Spirostreptus nigrolabiatus*, Pocock, *Journ. Bombay Nat. Hist. Soc.* I : 159, pl. 1. Fig. 7. pl. 11, Fig. 5.

1918. *Phyllogonostreptus nigrolabiatus*, Carl. *Rev. Suisse.* 26 : 426.

Local name : Peria Attai, Tamil.

Material examined : 10 exs., Vedur dam, 8.1.94 ; 1 ex., Iyyanapuram, 9.1.94 ; 6 exs., Kumarapuram Reserve forests, 9.1.94, 3 exs., Thenkodipakkam, 10.1.94 ; 3 exs. Ennarpalayam, 12.1.94 ; 15 exs., Murukespettai, 13.1.94 ; 8 exs., Gadilam river bed at Pannuruti, 14.1.94 ; 8 exs., Pulavunur, 14.1.94 ; 3 exs., Killai, 15.1.94 ; 4 exs. Porto Nova, 15.1.94 ; 18 exs., Chidambaram, 17.1.94 ; 4 exs., Veeranam, 17.1.94 ; 4 exs., Anjanakuppam, 18.1.94 ; 4 exs. Su Kiranur, 18.1.74 ; 9 exs., Vridhachalam, 19.1.94 ; 4 exs., Old Neyveli, 19.1.94 ; 4 exs., Wellington Reservoir, 20.1.94 ; 17 exs., Sendamangalam, 21.1.94 ; 5 exs., Periyanesalur, 22.1.94 ; 6 exs., Gomuki dam, 23.1.94 ; 9 exs., Madur village 24.1.94 ; 6 exs., Rshivandiyam, 24.1.94 ; 6 exs., Thirukkivilur, 25.1.94 ; 8 exs., Thapovanam, 27.1.94 ; 6 exs., Mambalapattu, 28.1.94. Total : 171 exs.

Diagnostic Features : Body dark brown or bright tan ; tail short curved upwards ; anal scale free ; coxa of gonopods laterally without knob. These are larger species

and a full grown specimen is about 12 to 22 cm. in length and about 1 cm. in breadth ; body has 57-59 segments.

Distribution : South India : Karnataka ; Tamilnadu : Madras, V. O. C. district.

Remarks : These are found mostly in gardens, bunds of fresh water tanks and open fields around villages which the villagers use as open toilet. They were found to feed on faeces and so may be called biodegradators or scavengers (Mary Bai 1995).

Order : SPIROSTREPTIDA

Family : HARPAGOPHORIDAE

Thyropygus poseidon Attems

1936. *Thyropygus posseidon* Attems, *Mem. Indian. Mus.* 11 (4) : 136-323.

Local Name : Karupu—Manjai Attai. Tamil.

Material Examined : 27 exs., Iyyanapuram, 9.1.94 ; 58 exs., Thenkodipakkam, 10.1.94 ; 23 exs., Ennarpalayam, 12.1.94 ; 24 exs., Murukespettai, 13.1.94 ; 20 exs., Gadilam River bed at Pannuruti, 14.1.94 ; 16 exs., Pulavunur, 14.1.94 ; 28 exs., Killai, 15.1.94 ; 15 exs., Chidambaram, 17.1.94 ; 22 exs., Veeranam 17.1.94, 80 exs., Thiruchinnapuram, 17.1.94 ; 15 exs., Miralur, 18.1.94 ; 21 exs., Su Kiranur, 18.1.94 ; 21 exs., Vridhachalam, 19.1.94 ; 13 exs., Old Neyveli, 19.1.94 ; 17 exs., Wellington reservoir, 20.1.94 ; 7 exs., Sendamangalam, 21.1.94 ; 13 exs., Periyanesalur, 22.1.94 ; 7 exs., Gomuki dam, 23.1.94 ; 49 exs., Madur Village, 24.1.94 ; 17 exs., Thirukkivilur, 25.1.94 ; 21 exs., Kannanakuppam, 26.1.94 ; 13 exs., Thapovanam, 27.1.94. Total : 527 exs.

Diagnostic Features : Body black with yellow spots on the sides ; dorsal side curved and shining ; in gonopod, gonocoel opens laterally posterior lamella with a short lobe. 6 cm. length and 1 cm. breadth.

Distribution : Sri Lanka and South India.

Remarks : These were collected mostly from kitchen gardens, around water sources, moist areas like bathrooms and wet areas surrounding the bases of banana trees.

Order : SPIROSTREPTIDA

Family : HARPAGOPHORIDAE

Jonespeltis splendidus Verhoeff

1936. *Jonespeltis splendidus* Verhoeff, *Rec. Indian Mus.* 38 : 103-127, pl. 7.

Material examined: 13 exs., Vedur dam, 8.1.94 ; 10 exs., Iyyanapuram, 9.1.94 ; 8 exs., Kumarapuram reserve forest, 9.1.94 ; 3 exs., Thenkodipakkam, 10.1.94 ; 4 exs., Ennarpalayam, 12.1.94 ; 6 exs., Murukespettai, 13.1.94 ; 22 exs., Pulavunur, 14.1.94 ; 48 exs., Porto Nova, 15.1.94 ; 12 exs., Thiruchinnapuram, 17.1.94 ; 6 exs., Miralur, 18.1.94 ; 21 exs., Su Kiranur, 18.1.94 ; 12 exs., Vridhachalam, 19.1.94 ; 8 exs., Periyane-salur, 22.1.94 ; 21 exs., Thirukkivilur, 25.1.94 ; 17 exs., Kannanakuppam 26.1.94 ; 7 exs., Mambalapattu, 28.1.94. Total : 218 exs.

Diagnostic features: Body brownish black with lateral yellow dots which are not very dark. The tibiotarsus of gonopode is plain at the end and without lobes. Length 32-34 mm., width 2-3 mm.

Distribution: South India : Madras, Kodaikanal, V. O. C. district and Pondicherry.

Remarks: Occurs in large numbers in wet areas near the drainages and plants in kitchen gardens. This species is comparatively smaller in size.

DISCUSSION

All the above mentioned four species studied are being reported for the first time from South Arcot District. When the data on their abundance was analysed, the following results were obtained (Table 1). Out of the four species encountered in South Arcot district, *Thyropygus poseidon* was the most abundant species accounting for 43.41% of the specimens collected from the district. Next to this species, *Xenobolus acuticonus* constituted $\frac{1}{4}$ th of the population i.e., 24.54%. *Phyllogonostreptus nigrolabiatus* and *Jonespeltis splendidus* were almost equally represented by 14.08% and 17.95% of the total collections.

TABLE 1

Population abundance of Millipede sp. in S. Arcot district

Name of the species	No. Ex.	%
<i>Thyropygus poseidon</i>	527	43.41
<i>Xenobolus acuticonus</i>	298	24.54
<i>Phyllogonostreptus nigrolabiatus</i>	171	14.08
<i>Jonespeltis splendidus</i>	218	17.95

SUMMARY

The paper presents an account of 4 species belonging to 4 genera under 2 families. All the four species are reported for the first time from South Arcot district, Tamilnadu.

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