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SHORT NOTE

NEW RECORDS OF *HEXAMERMIS* SPP. (NEMATODA : MERMITHIDAE) FROM NEUROPTERA AND LEPIDOPTERA IN INDIA.

The Nematodes, particularly of the family Mermithidae, are of considerable economic importance since they occur in insects, mostly noxious, and other invertebrates and tend to keep them in control (Thorne 1961). The mermithids, only during their larval stages, are mainly parasites of the insects but occur in other animals as well (Cameron, 1956).

Of the several species of mermithid worms known from India, *Hexamermis* sp. has been recorded by Usman (1956) on potato tuber moth, by Srivastava (1964) on four sugarcane borers and by Chatterji *et al.* (1965) on seven Lepidoptera and one Coleoptera.

The present authors, during the course of studies on the predators of the lac insect, *Kerria lacca* (Kerr), and the pests of its host trees, collected juveniles of *Hexamermis* spp. from an adult Neuroptera and caterpillars of three Lepidoptera as shown below, all of which are new records.

(i) *Hexamermis* sp.

Host : Caterpillars of *Dilinia medardaria* Herr.-Sch. (Lepidoptera : Geometridae : Boarminae), a defoliator of *Zizyphus xylopyra* Willd. (*ghont*).

One specimen was collected on 11.10.62, two on 22.9.63 and one on 14.9.64 at Damoh (Madhya Pradesh) and four on 16.9.63 at Namkum (Ranchi, Bihar). Length of the worm about 10 cm. One parasite emerged from each host.

(ii) *Hexamermis* sp.

Host : *Chrysopa madestes* Banks (Neuroptera : Chrysopidae), a predator of the lac insect. One specimen was collected from an adult on 16.9.63 from Hesal (Ranchi). Length of the worm 6 cm.

(iii) *Hexamermis* sp.

Host : *Thiacidas postica* Wlk. (Lepidoptera : Noctuidae), a defoliator of *Zizyphus mauritiana* Lamk. (*ber*) and *Z. xylopyra*. Ten specimens were collected from the caterpillars on *Zxylopyra* only on 8.10.63 at Damoh. Length of the worms varied from 5.6—9.1 cm.

(iv) *Hexamermis* sp.

Host : *Inderbela* sp. (Lepidoptera : Inderbelidae), a borer of *Wrightia tinctoria* R. Br. (*dudhi*), a non lac-host, and other trees both lac-hosts and non lac-hosts. One specimen was collected from a caterpillar on *W. tinctoria* on 27.7.63 at Damoh.

It may be pointed out that the immature worms under (i-iii) were collected during September-October and the one under (iv) in July.

As the specimens collected were all immature, it was not possible to determine their specific identity. Possibly, the material available from *D. medardaria* was different from specimen collected from *C. madestes* and that the stages from *T. postica* and *Inderbela* sp. represented different species of *Hexamermis*. According to Dr.

Welch, our collection probably consisted of different species of *Hexamermis* which, on further study, might prove to belong to new species.

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References

Cameron, T.W.M. 1956 Parasites and Parasitism London 119 pp.

Chatterji P. N. and Singh Paratap 1965. Mermithid parasites and their role in natural control of insect pests. *Indian Forester*, **91** : 714-721.

Srivastava, R. C. 1964. Record of *Hexamermis* sp. (a nematode) on some species of moth borers of sugarcane in India. *Curr.Sci.* **33** : 691.

Thorne, G. 1961. Principles of Nematology. New York, 25 p.

Usman, S. 1956. Some field parasites of the Potato Tuber Moth, *Gnorimoschema operculella* Zell. in Mysore. *Indian J. Ent.* **18** : 467-468.

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