

SHORT COMMUNICATIONS

D. C. M. CORBETT¹): *Spermatheca shape in Trophurus spp.*

Loof (1956) erected the genus *Trophurus* with *T. imperialis* as the type species and *T. sculptus* as another species. Caveness (1958, 1959) has since described *T. minnesotensis* (syn. *Clavaurotylenchus minnesotensis*) and Roman (1962) *T. longimarginatus*. All these species were illustrated with an oblong spermatheca: Thorne (1961) and Thorne & Malck (1968) also show *T. minnesotensis* with an oblong spermatheca.

Specimens of *T. imperialis*, found associated with wheat on the Broadbalk field at Rothamsted, when mounted in glycerine were slightly smaller than Loof's two females and two males; they had the following measurements:

10 ♀ L = 0.85-1.01 mm; a = 31-37; b = 6.0-6.7; c = 20-31; V = 55-58; stylet = 16-18 μ .

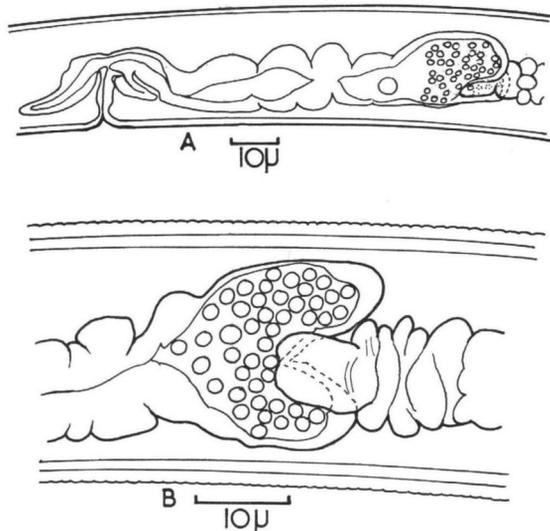


Fig. 1. A. Female gonad of *T. imperialis* in lateral view, showing spermatheca. B. Spermatheca of *T. imperialis* viewed from ventral side.

8 ♂ L = 0.80-0.99 mm; a = 35-45; b = 4.9-6.4; c = 17-25; T = 30-48; stylet = 13-16 μ ; spicules = 17-22 μ ; gubernaculum = 5-7 μ .

They were morphologically the same as paratypes of *T. imperialis*.

The spermatheca of the paratypes and of the Rothamsted population of *T. imperialis* differs considerably in shape from the one figured by Loof (1956). It consists (Fig. 1) of a central sub-spherical part with two forward pointing lobes, one at each side of the gonad. These lobes are sometimes laterally placed, but more often one is lower than mid-body and the other higher and partially overlies the gonad. The spermatheca is the same shape in virgin as in fertilised females, though more difficult to see because it is not distended by spermatozoa. Paratypes of *T. sculptus*, *T. minnesotensis*, and an unnamed species of *Trophurus* from California, also have a spermatheca of this same shape. Specimens of a *Trophurus* sp. from Nigeria had a small oblong spermatheca; specimens of *T. longimarginatus* were not available for study.

I thank Mr. Loof and Prof. Sher for loaning specimens of *Trophurus* spp.

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- CAVENESS, F. E. (1958). *Clavaurotylenchus minnesotensis* n. gen., n. sp. (Tylenchinae: Nematoda) from Minnesota. *Proc. helminth. Soc. Wash.*, **25**, 122-124.
- (1959). *Trophurus minnesotensis* (Caveness, 1958) n. comb. *Proc. helminth. Soc. Wash.*, **26**, 64.
- LOOF, P. A. A. (1956). *Trophurus* a new Tylenchid genus (Nematoda). *Versl. Meded. Plziektenk. Dienst Wageningen*, **129** (Jaarboek 1955), 191-195.
- ROMAN, J. (1962). *Trophurus longimarginatus* n. sp. (Tylenchida: Nematoda) from Puerto Rico. *J. Agric. Univ. Puerto Rico*, **46**, 269-271.
- THORNE, G. (1961). *Principles of Nematology*. McGraw-Hill, New York, 553 pp.
- THORNE, G. & MALEK, R. B. (1968). Nematodes of the Northern Great Plains. Part 1. Tylenchida (Nemata: Secernentea) *Tech. Bull. S. Dak. agric. Exp. Stn* **31**, 111 pp.

G. W. YEATES¹): *The status of Trichodorus clarki* Yeates, 1967, *Ereptonema inflatum* Yeates, 1967 and *Mononchoides potohikus* Yeates, 1969.

Type material of *Trichodorus clarki* Yeates, 1967 has been compared with specimens of *T. lobatus* Colbran, 1965 and no significant differences have been found. *T. clarki* is thus a junior synonym of *T. lobatus*.

Specimens of *Ereptonema inflatum* Yeates, 1967 have been re-examined and are considered to belong to *Wilsonema* Cobb, 1913 and are not significantly different from *W. otophorum* Cobb, 1913. Thus *E. inflatum* is a junior synonym of *W. otophorum*.

The short tail and prerectum described in *Mononchoides potohikus* Yeates, 1969 mean the species belongs to the genus *Diplenteron* Andr ssy, 1964. *M. potohikus* is transferred to *Diplenteron* and becomes *Diplenteron potohikus* (Yeates, 1969) n. comb. *D. potohikus* may apparently be distinguished from *D. colobocercus* Andr ssy, 1964 by the presence of 12 lip papillae (6 in *D. colobocercus*) 12 cheilostom rods (18-20) and the left subventral metarhabdion being a two-notched plate (single notch in *D. colobocercus*).

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G. W. YEATES¹): *A note on the function of the prerectum in Diplenteron potohikus* (Yeates, 1969) (Nematoda: Diplogasteridae).

In monoxenic culture with *Bacillus cereus* var. *mycoides*, *Diplenteron potohikus* clearly demonstrated the role of the prerectum in defaecation, a phenomenon hitherto apparently undescribed in free-living nematodes. Lee (1965) noted that when the intestino-rectal valve is opened the contents of the prerectal region are ejected with considerable force from the rectum and anus, because of hydrostatic pressure. In some nematodes, a contractile network covering the intestine is said to help to force the waste material out.

When defaecation was observed in *D. potohikus* females, at 80 × magnification, the prerectum, and prerectum only, was evacuated. When evacuation was complete, and not before, the prerectum refilled rapidly. The emptying and refilling of the prerectum occupied about a second. A very slight narrowing of the prerectum was observed during defaecation.

In similar observations on *Mesorhabditis littoralis* Yeates, 1969, which does not have a prerectum, there was no obvious clearing of any portion of the intestine and between defaecations intestinal contents could be seen moving in the posterior region of the intestine. No such movements were observed in the prerectum of *D. potohikus*.

It is suggested that the prerectum, which is set off from the intestine by a constriction, acts as a

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