

## Intersexes of Leptonchus obtusus Thorne<sup>1</sup>

C. G. GOSECO and V. R. FERRIS<sup>2</sup>

Intersexes are rare, but well-known, occurrences in nematodes. Reports on this phenomenon are relatively few except in the Mermithoidea where intersexes are observed frequently. Literature on intersexes in nematodes has been reviewed by Steiner (6), Chitwood (2), Hirschmann and Sasser (4) and Triantaphyllou (7). Intersexual forms have also been reported in *Tyleptus striatus* Heyns (5), *Longidorus macrosoma* Hooper (1) and *Telotylenchus* sp. (3).

During examination of specimens of the genus *Leptonchus* Cobb in the Purdue Nematode Collection, two intersexual forms of *Leptonchus obtusus* Thorne from soil collected in a wooded area near Sunrise Beach, Missouri,

were observed. Although there were several normal females, no males were found. Both intersex specimens resembled the female in body shape and exhibited apparently normal female sexual characters; viz. vulva, vagina, uterus and well-developed ovaries, although mature ova and sperm were not seen (Fig. 1A). In addition, their measurements were very close to those of normal females.

### Dimensions:

Normal females (3): L = 1.14-1.31 mm; a = 31-34; b = 3.9-5.4; c = 47-55; V = 53-55%; anterior gonad = 17-18%; posterior gonad = 17-18%; vagina length = 13  $\mu$ .

Intersex forms (2): L = 1.13, 1.31 mm; a = 32, 34; b = 4.9, 5.5; c = 38, 47; V = 54, 56%; anterior gonad = 13, 17%; posterior gonad = 13, 18%; vagina length = 13, 13  $\mu$ ; spicule length = -, 14  $\mu$ .

Distinct differences between the two intersex specimens were noted in their male sexual structures. One intersex specimen had what appeared to be one pair of small, abnormally shaped spicules. Each spicule, however, seemed to be divided longitudinally

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<sup>2</sup>Department of Entomology, Purdue University, West Lafayette, Indiana 47907.

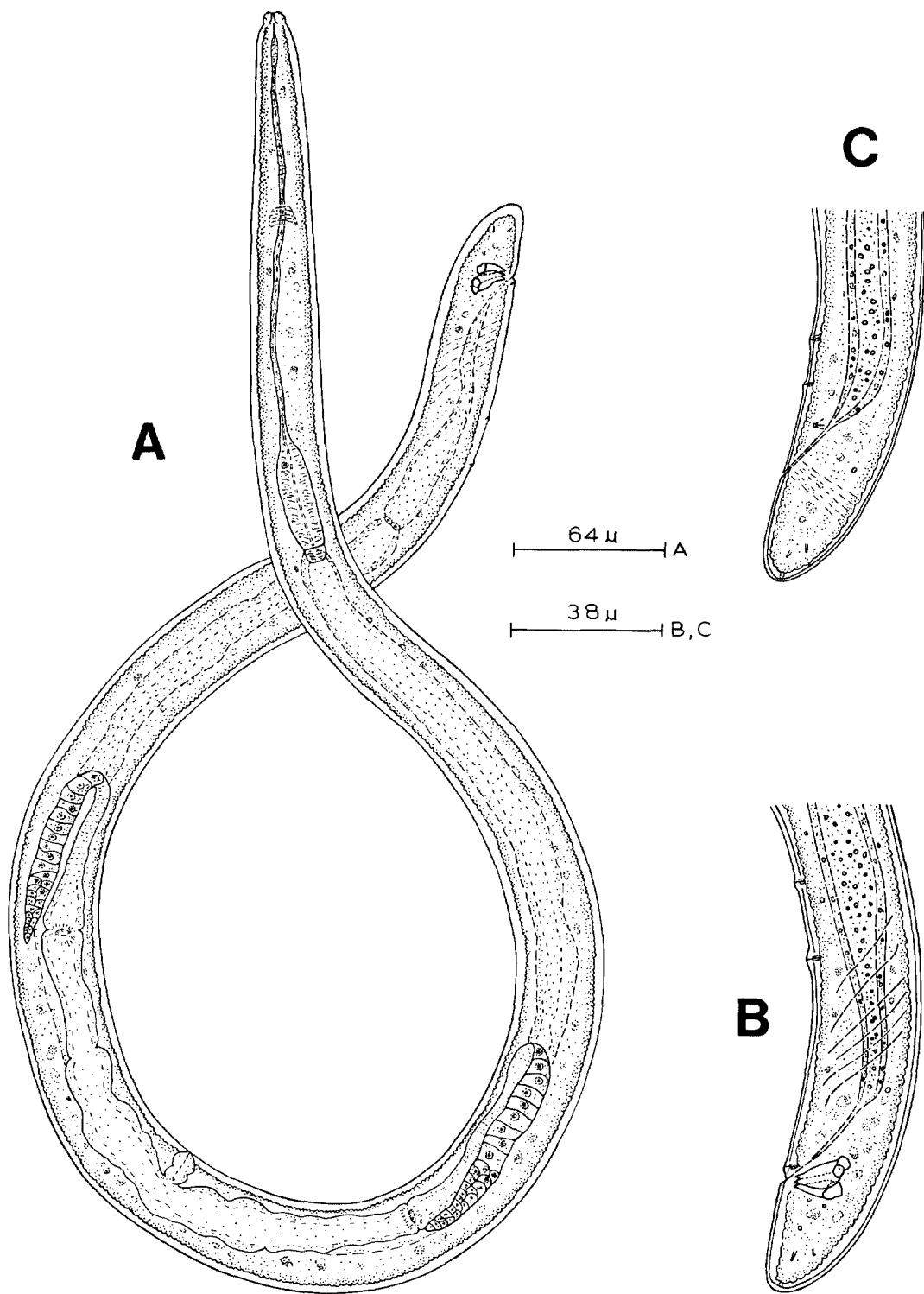


FIG. 1. *Leptonchus obtusus* Thorne, 1939. A. An intersex. B. and C. Variations in male sexual structures of intersexes.

into two parts (Fig. 1B). The spicules of the intersex form were smaller than those of normal males from other populations. A pair of adanal and two preanal supplements were present as well as conspicuous copulatory musculature (Fig. 1B). In the other intersex specimen, spicules and copulatory musculature were absent. Instead, a prominent lateral papilla and two small, more posteriorly located preanal supplements were observed (Fig. 1C). Both intersex specimens had fewer and less distinct supplements than did normal males.

Except for an earlier report by Jairajpuri and Siddiqi (5) on *Tyleptus striatus* Heyns this observation appears to be the only other report on the occurrence of intersexes in the Leptonchoidea.

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