

Postgraduate Department of Zoology, Bareilly College,
P.O. Box 15, Bareilly 243001, India

GRANONCHULUS HELICUS SP. N. (NEMATODA: MONONCHIDA)
FROM NORTH INDIA

by
R. K. SHARMA and V. SAXENA

Soil samples collected from around the roots of sunflower *Helianthus annuus* L. in a garden at Bareilly, India, contained specimens of an undescribed species of *Granonchulus* Andrassy, 1958. The nematodes were killed by gentle heat, fixed in F.A.A. (4:1) and processed by the slow glycerine mixture method.

GRANONCHULUS HELICUS Sp. n.
(Fig. 1-3)

Holotype female: L = 1.1 mm; a = 19.4; b = 4; c = 19.4; v = 61;
buccal capsule = 23 μ m x 12 μ m; tail length = 56 μ m.

Paratype (1 female): L = 1.2 mm; a = 22.3; b = 4.5; c = 19.3; v = 57;
buccal capsule = 22 μ m x 12 μ m; tail length = 61 μ m.

Small body tapering towards the extremities, ventrally arcuate when killed and relaxed. Cuticle smooth, 1.5 to 2 μ m thick; lip region 22 μ m wide and 8 μ m high, separated from the body by a slight depression; the six lips are conical shaped and possess well developed labial papillae. Buccal capsule 23 μ m long and 12 μ m wide with cuticularized walls; dorsal tooth moderately strong, conoid with the apex projected forward to 73% of the stoma length from base. Minute denticles are arranged in a single transverse row at the apex of the dorsal tooth with a scattered group posteriorly (Fig. 1). Oesophagus stout, highly muscular and cylindrical, gradually widening towards

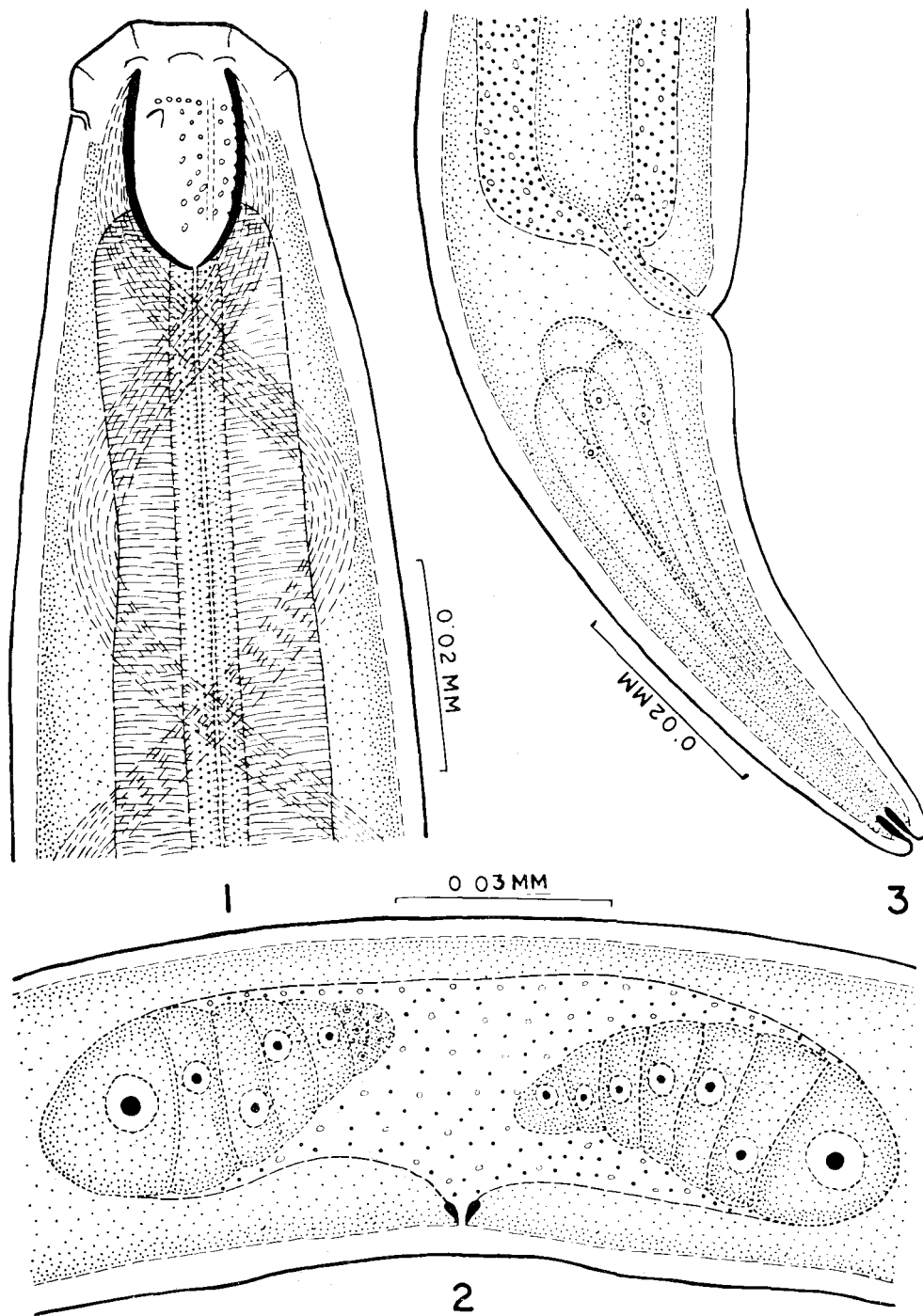


Fig. 1-3 - Female of *Granonchulus helicus* sp. n.: anterior region (1); reproductive tract (2) and tail region (3).

posterior extremity and enveloping anteriorly 1/3rd of stoma. Oesophagus surrounded by two bands of muscles arranged in a spiral fashion (Fig. 1). Oesophago-intestinal valve nontuberculate, with a conoid cardia suspended inverted into the intestinal cavity. Nerve ring clearly evident, situated 132 μ m from anterior end of the body; excretory pore just posterior to base of lips (Fig. 1). Vulva small and transverse at 61% of body length from anterior end; cuticularized pieces at the vulva-vagina junction well developed and pear shaped; gonads amphidelphic, reflexed (Fig. 2). Rectum as long as 1/3 of anal body width. Tail elongate conoid, slightly arcuate ventrally, with three caudal glands and terminal spinneret (Fig. 3).

Male unknown.

Type habitat: Soil around the roots of *Helianthus annuus* L. at Bareilly, India.

Type specimens: Deposited in the Zoology Department, Bareilly College, India.

Differential diagnosis: *Granonchulus helicus* resembles *G. subdecurrens* Coetzee, 1966, but differs from it in having differently situated caudal glands, in more elongate and less curved tail, shorter rectum and lower value of 'a'. Moreover, the excretory pore which is distinct in *G. helicus* is not evident in *G. subdecurrens*. The new species also bears similarities to *G. decurrens* (Cobb, 1917) Mulvey, 1963, but differs by having distinct caudal glands and spinneret which are absent in the latter species. The excretory pore in the new species is located just posterior to the head while in *G. decurrens* it is located posteriorly to the nerve ring.

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S U M M A R Y

Granonchulus helicus sp. n. is described from soil around the roots of sunflower *Helianthus annuus* L. in Rohilkhand, North India. It differs from its nearest relative *G. subdecurrens* Coetzee, 1966 in the arrangement of caudal glands, tail shape, smaller 'a' value, shorter rectum and in having an evident excretory pore.

L I T E R A T U R E C I T E D

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