TWO NEW SPECIES OF *ACROBELES* AND A REDESCRIPTION OF THE
TYPE, *A. CILIATUS* LINSTOW, 1877

BY

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*Acrobeles ciliatus* Linstow, 1877 is redescribed from specimens collected in Germany and The
Netherlands. *A. ensicaudatus* n. sp. from Florida is distinguished by its sword-like tail, relatively
large cephalic region, long membranous tine on one side of each cephalic probola, excretory pore
about the twelfth annule and short postuterine sac. *A. cebelatuJ n. sp., from Australia, is distinguished
from other *Acrobeles* species by the possession of a subterminal spur on the labial probolae in
addition to a pair of slender terminal spurs; apposition of the subterminal spur with the forward
directed member of the terminal pair provides a claw-like appearance.

In 1877 Von Linstow published a description of the type, *Acrobeles ciliatus*, in which there were four labial probolae and four cephalic probolae. It is not
known whether his specimens were collected in the Ratzeburg area of Germany,
his address at the time of publication. The late Dr. H. Goffart (personal communi-
cation) considered that Von Linstow’s original material was no longer available.
De Man (1884) disagreed with Von Linstow’s proposal of the genus *Acrobeles*
and described more fully *Cephalobus ciliatus* from moist sandy soils in the meadows
of The Netherlands, making *A. ciliatus* a synonym. The length of Von Linstow’s
specimen was 380 microns while those of De Man were — male 900 microns,
female 450-800 microns. Thorne (1925) pointed out that Von Linstow’s record
of only four labial and four cephalic probolae was incorrect; furthermore, he
suggested that the variation in size of De Man’s specimens indicated that more
than one species was observed. In 1961, Loof published a review of De Man’s
nematode collection and corroborated Thorne’s suggestion; he determined that one
specimen must be placed in *A. complexus* on the basis of size and the position
of the excretory pore, whereas the female figured by De Man probably belongs to
*A. ciliatus* (L = 0.5 mm, excretory pore opposite corpus). According to Loof,
both species are regularly found together in the Netherlands, while the specimens
described from Ischia by Meyl (1954) belong to *A. ciliatus*.

Thorne (1937) briefly redescribed *Acrobeles ciliatus* because Von Linstow’s
original description and figure were inadequate to determine its identity; the
female (540 microns) and the male (530 microns) were secured by Dr. T. Goodey

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A REDESCRIPTION OF ACROBELES CILIATUS LINSTOW, 1877

Fig. 1, A-E

**Dimensions:**

4 Females. \( L = 454-538 \) microns; \( a = 15-18; b = 3.6-4.0; c = 8.3-8.9; V = 19^{21} 56-61 17^{20} \).

1 Male. \( L = 521 \) microns; \( a = 21; b = 3.6; c = 11; T = 56; \) spicule = 26 microns; gubernaculum = 15 microns.

Neotype \( ? \): \( L = 538 \) microns; \( a = 18; b = 3.7; c = 8.8; V = 19 \) 60 \( 20 \).

A relatively stout nematode (Fig. 1 A). Cephalic region about one third as wide as body diameter at vulva, longer than broad. Each labial probola fringed with acutely pointed membranous tines, usually five on inner, opposing sides and eight bordering outer sides (Fig. 1 C). Stems of labial probolae terminate in a pair of forwardly directed spurs generally separated from most anterior tines by a distance greater than that between tines. An almost transparent membrane joins each arm of the labial probolae along about half their length. A crown of six cephalic probolae surrounds the labials, each with a fringe of membranous tines. On one side the tines gradually enlarge anteriorly, whereas on the other side four small basal tines are followed by two much larger and a subterminal, smaller one (Fig. 1 B). Labial papillae and circular amphids easily seen at the base of cephalic probolae.

Cuticle strongly annulated with approximately 190 striae; 115 from head to vulva, 60 from vulva to anus and 15 caudally. Width of annules approximately 3 microns. Lateral field consisting of two pairs of longitudinal striae forming two bright lines which are separated by a minutely spotted area (Fig. 1 E). Excretory pore 21 annules from head, varying from 20-25. Hemizonid at level of anterior isthmus. Tail conoid, its diameter constricted about half its length and its terminus acute; phasmid located less than one quarter length of tail posterior to anus.

Stoma surrounded by oesophageal tissue; rhabdions difficult to distinguish in glycerine mounts. Corpus widest about its middle and tapering toward isthmus, which narrows to junction with valvate posterior bulb. Intestine expansive anteriorly and constricted alongside gonad. A sphincter muscle and rectal glands usually visible near anterior end of rectum. Excretory duct leads from the pore to a large, nucleated renette cell which lies ventral and slightly anterior to posterior bulb. Nerve ring situated near junction of corpus and isthmus. Cuticular lining of *vagina vera* somewhat key-hole shaped in side view, leading to *vagina uterina* mostly dilated in permanent mounts. Post-vulvar uterine sac approximately 1.5 times as long as