

NEMATODES FROM WEST BENGAL (INDIA)  
XVII. A NEW SPECIES OF THE GENUS *PRODORYLAIMUS* ANDRA'SSY, 1959  
(DORYLAIMIDAE : DORYLAIMIDA)

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ABSTRACT

A new species of the genus *Prodorylaimus* Andrassy, 1959 is described from Santiniketan, district Birbhum, West Bengal. *Prodorylaimus sukuli* sp. n. is characterized by having L=2.42-2.66 mm ; a=30-40 ; b=4.2-4.9 ; c=7.5-11 ; V=44-47 ; odontostyle=30-33  $\mu$ m ; odontophore=28-33  $\mu$ m.

INTRODUCTION

Two slides containing the nematodes were brought by the first author to Zoological Survey of India for identification. Upon identification, these nematodes were found to represent a new species of the genus *Prodorylaimus* Andrassy, 1959 which is described hereunder as *P. sukuli*.

MATERIAL

Three type specimens have been registered and deposited with the National Zoological Collection, Zoological Survey of India, Calcutta. *P. Sukuli* ; Holotype female along with one paratype female and one paratype male on slide No. WN 495. The other

paratypes have been deposited with the museum of Zoology Department, Visvabharti University, Santiniketan, W. Bengal.

*Prodorylaimus sukuli*\* sp. n.

(Fig. 1)

*Measurements :*

Holotype (♀) : L=2.65 mm ; a=37 ;  
b=4.5 ; c=7.5 ; V=14<sup>45</sup>14.5

Paratypes : 3 ♀ ♀ : L=2.46-2.66 mm ;  
a=30-37 ; b=4.2-4.6 ; c=7.9-11 ;  
V=14-15.5 44-47 14.6-16.6

Paratypes : 3 ♂ ♂ : L=2.42-2.51 mm ;  
a=34-40 ; b=4.2-4.9 ; c=8.6-8.8 ;  
T=49-55.

\* Named after Dr. N. C. Sukul, Reader in Zoology, Visva Bharati University, Santiniketan.

*Description :*

Female : Body slightly curved ventrally upon fixation, tapering towards both extremities. Cuticle finely striated transversely; its thickness varies 2.5-5.5  $\mu\text{m}$  (thickest

on tail). Lateral chords granular,  $1/5-1/4$  of body-width near middle. Dorsal, ventral and lateral body pores indistinct.

Lip region rounded, narrower than body, marked by a slight depression, about  $1/6.0-1/$

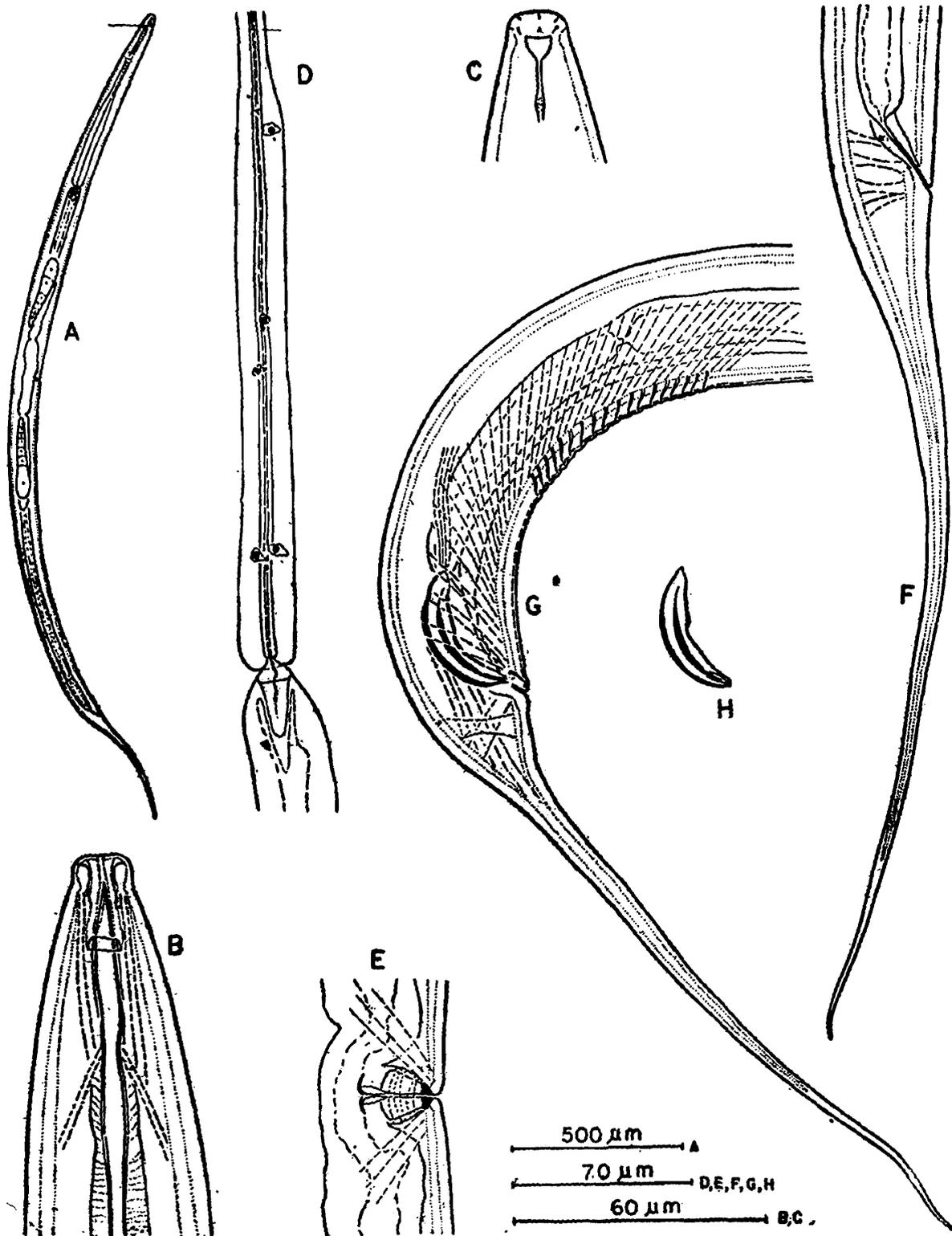


Fig. 1. *Prodorylaimus sukuli* sp. n. : A—Entire female, B—Anterior region, C—Head end (superficial view), D—Basal expanded part of oesophagus showing oesophageal gland nuclei and their orifices, E—Vulva region, F—Female tail, G—Male posterior region, H—Spicule

4.5 of the body-width at base of oesophagus. Amphids stirrup-shaped ; their apertures 6.5-8.0  $\mu\text{m}$  or 47-55% of the corresponding body-width, and 6-7  $\mu\text{m}$  from anterior end. Sensillar pouches 17-19  $\mu\text{m}$  from amphidial slits.

Obontostyle 30-33  $\mu\text{m}$  or 2.1-2.3 head-width long ; aperture 11-12  $\mu\text{m}$  or 37-40% of the odontostyle length. Guiding ring 19-21  $\mu\text{m}$  or 1.3-1.5 head-width from anterior end. Odontophore simple, 28-33  $\mu\text{m}$  or 0.9-1.1 times the odontostyle length. Basal expanded part of oesophagus occupying 46-53% of the neck region. Position of the oesophageal gland nuclei and their orifices as follows (observed only in one female) : DO=55.1 ; DN=58.9 ; DO-DN=3.8 ;  $S_1 N_1=77$  ;  $S_1 N_2=80$  ;  $S_2 N=91$  ;  $S_2 O=92$ . Nerve ring 133-166  $\mu\text{m}$  or 23-29% of the neck region from anterior end. Cardia elongate-conoid, enveloped in intestinal tissue. Oesophago-intestinal disc present. Prerectum 86-128  $\mu\text{m}$  or 2.3-3.3 anal body-width long. Rectum 27-33  $\mu\text{m}$  or 1.2 anal body-width long.

Vulva a transverse slit. Vagina more than 1/3rd of corresponding body-width long, sclerotized distally. Female reproductive system amphidelphic. Uteri smaller than oviducts, separated by sphincter. Ovaries reflexed ; oocytes arranged in a single row except in the region of multiplication.

Tail long, 230-354  $\mu\text{m}$  or 6-9 anal body-width long. Caudal pores indistinct.

*Male* : Similar to female in general shape and morphology except for the male reproductive system and more ventrally

curved posterior part of the body. Prerectum short, 100-135  $\mu\text{m}$  or 2.5-3.2 anal body-width long. Tail long, 280-290  $\mu\text{m}$  or about 7 anal body-width long. One male was found with broken tail tip (mounted along with holotype female), 150  $\mu\text{m}$  or about 3.5 anal body-width long.

Reproductive system typical. Spicules 57-67  $\mu\text{m}$  or 1.3-1.6 anal body-width long. Lateral guiding pieces 9-11  $\mu\text{m}$  long. Supplements an adanal and 17-18 contiguous ventromedians. Copulatory muscles 39-41.

*Differential diagnosis* : *Prodorylaimus sukuli* sp. n. comes close to *P. dahli* (Altherr, 1960) Andrásy, 1964 and *P. paralongicaudatus* (Micoletzky, 1925) Andrásy, 1959. From the former it differs in having differently shaped lip region, thicker body ( $a=47-64$  in *P. dahli*), more posterior vulva ( $V=35-41$  in *P. dahli*), longer odontostyle in relation to head-width (odontostyle less than 1.9 head-width in *P. dahli*), shorter odontostyle aperture and odontophore (odontostyle aperture = 15-16  $\mu\text{m}$  and odontophore = 28-33  $\mu\text{m}$  in *P. dahli*). From *P. paralongicaudatus* the present new species differs in having shorter odontostyle, odontostyle aperture, odontophore and tail (odontostyle = 38-39  $\mu\text{m}$ , odontostyle aperture = 14-16  $\mu\text{m}$ , odontophore = 42-45  $\mu\text{m}$  and tail more than 20 anal body-width long in *P. paralongicaudatus*). From *P. dahli* and *P. paralongicaudatus* it can further be differentiated in the absence of distinct body pores and post-odontophore constriction.

*Type habitat and locality* : Collected from soil around roots of an insectivorous plant, *Drosera burmani* at the gullies of the bad land,

Santiniketan, district Birbhum, W. Bengal, India.

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