

Institute of Biology, Faculty of Science, University of Novi Sad, 21000 Novi Sad, Yugoslavia

## FIRST RECORD OF ANATONCHUS GINGLYMODONTUS MULVEY FROM YUGOSLAVIA

by  
L. BARSÍ

**Summary** *Anatonchus ginglymodontus* Mulvey, 1961 found in the rhizosphere of *Amorpha fruticosa* L. and *Vitis* sp. near Obrez, Obedska bara (Vojvodina Province) is redescribed and reported for the first time from Yugoslavia. Yugoslavian specimens generally agree with the type population of this species from California as well as with populations from Poland although some differences exist which may be considered as intraspecific variations.

Specimens of *Anatonchus ginglymodontus* Mulvey, 1961 were recovered from soil samples collected from the rhizosphere of *Amorpha fruticosa* L. and *Vitis* sp. near Obrez — Obedska bara (Vojvodina Province). They were killed by hot FP 4-1 and processed to glycerine by Andrassy's (1984) rapid method.

### Description

Female body ventrally arcuate upon fixation. Outer cuticle transversely striated only in tail region; the inner cuticle finely striated over the greater part of the body, striations more prominent in tail region. Lip region slightly offset, 50-70  $\mu\text{m}$  wide; lips separated, more or less protruding. Amphid apertures oval, 6-7.5  $\mu\text{m}$  wide, located somewhat posterior to the beginning of buccal cavity. Buccal cavity barrel-shaped, 1-1.3 times as long as wide, with three similar retrorse teeth (one dorsal and two subventral located in a very anterior position). Dorsal tooth of medium size, its apex at 35-49  $\mu\text{m}$  or 72-85% of the length of buccal cavity from base. Subventral walls with two teeth at same level and of same size as dorsal tooth. Teeth appear to be hinged to anterior wall of the buccal cavity. Wall of buccal cavity distinctly striated. Oesophagus 586-742  $\mu\text{m}$  long; oesophago-intestinal junction tuberculate. Nerve ring 170-196  $\mu\text{m}$  from anterior end. Rectum and anus prominent. Vulval lips cuticularised; vagina 1/3rd of corresponding body-width. Pre-vulval papillae 0-7, post-vulval papillae 0-7, spaced irregularly. Reproductive system amphidelphic. Eggs 108-147 x 51-70  $\mu\text{m}$ . Ovaries

reflexed. Uterus and oviduct separated by well developed sphincter. Distance between vulva and anus 2.5-4.1 times longer than tail. Tail elongate-conical, ventrally curved, gradually tapering to a subtruncate tip. Three caudal glands present but in some specimens these glands are rather indistinct; spinneret present.

Male similar to female in general morphology and body shape, except more curved in posterior third of body. Buccal cavity 1.2-1.5 times as long as wide; three similar, symmetrical and retrorse teeth placed at the same level. Dorsal tooth apex at 29-36  $\mu\text{m}$  or 60-74% of the length of buccal cavity from base. Oesophagus 535-664  $\mu\text{m}$  long. Nerve ring 152-177  $\mu\text{m}$  from anterior end. Testes paired, opposed, outstretched. Lateral accessory pieces 18 (16-19)  $\mu\text{m}$  long. Supplements 13-17. Tail elongate-conical, ventrally arcuate, gradually tapering to a subtruncate tip. Three caudal glands present but in some specimens these glands are rather indistinct; spinneret present. Caudal papillae as illustrated.

### Discussion

*A. ginglymodontus* has been originally described by Mulvey (1961) from California (U.S.A.) and once reported and redescribed by Baqri *et al.* (1978) from Poland. Populations from Yugoslavia generally agree with the original description of the species as well as with population from Poland but some differences exist. Taking into consideration the descriptions and morphometric data (Table I) given by the above mentioned authors these differences are: posterior vulva; cuticularized lips of vulva (not so in

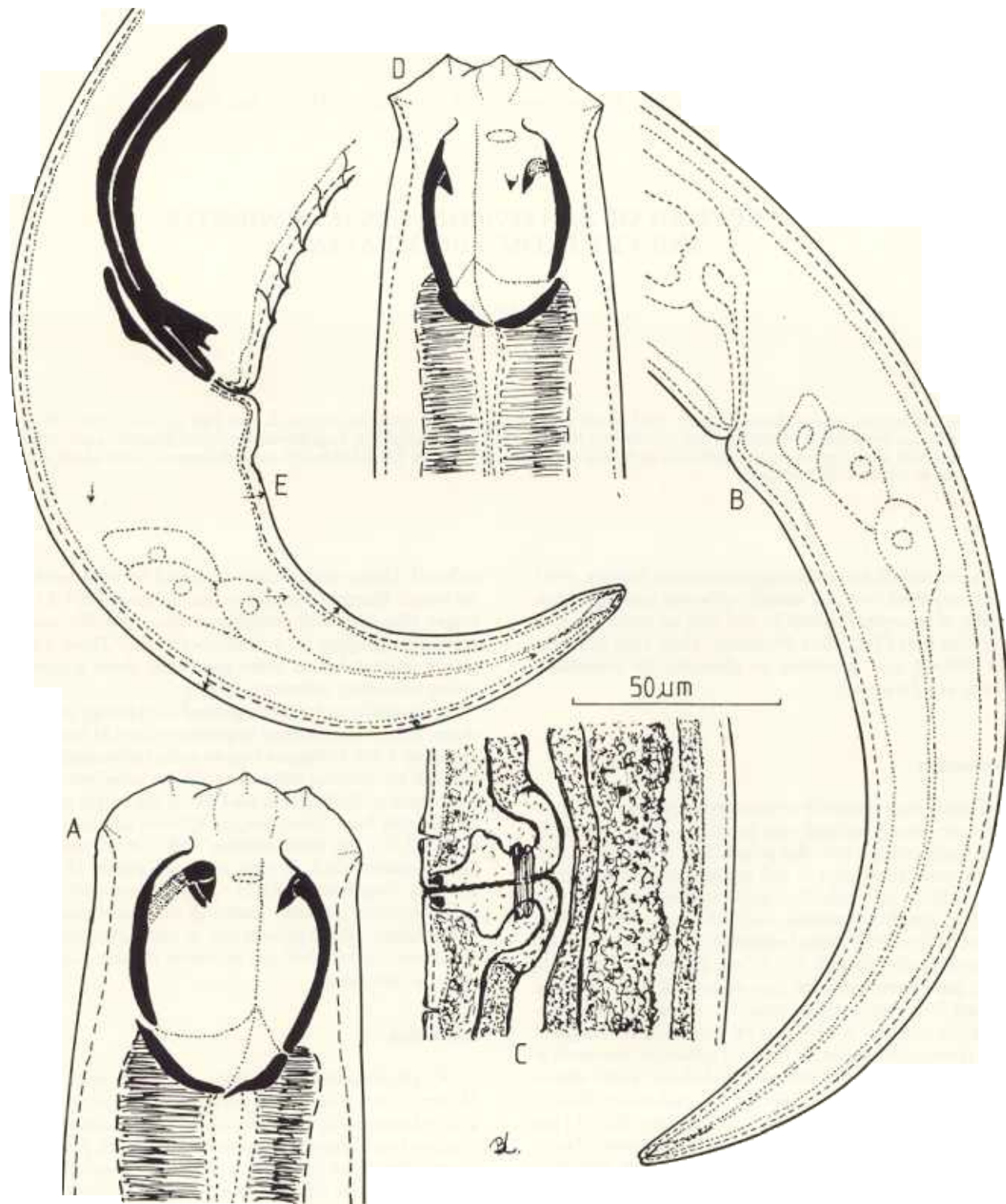


Fig. 1 - A-E: *Anatonchus ginglymodontus*. A, female anterior region; B, female tail; C, vulva region; D, male anterior region; E, male tail.

Californian and Polish populations); shorter tail and somewhat differently shaped tail tip (tail tip rounded in Californian and Polish populations); higher «c» value; somewhat shorter spicules; somewhat shorter gubernaculum and higher number of supplements (twelve in Polish male).

These differences may be represent intraspecific varia-

tions. This is the first record of *A. ginglymodontus* from Yugoslavia.

I wish to express my gratitude to Prof. Andrassy for verifying my identification of *A. ginglymodontus* and for critically reading and commenting on this manuscript.

TABLE I - Measurements of *Anatonchus ginglymodontus* from Yugoslavia, U.S.A. (California) and Poland.

Country	Yugoslavia				U.S.A. (California) (Mulvey, 1961)		Poland (Baqri <i>et al.</i> , 1978)	
	Rhizosphere of				Grass sod		Cultivated fields	
Habitat	<i>Amorpha fruticosa</i>		<i>Vitis</i> sp.					
					Holotype	Paratypes		
n	22 ♀♀	14 ♂♂	23 ♀♀	18 ♂♂	1 ♀	4 ♀♀	5 ♀♀	1 ♂
L mm	2.94 (2.35-3.34)	2.74 (2.49-3.17)	2.90 (2.55-3.10)	2.72 (2.41-3.20)	2.6	2.4 (2.2-2.6)	2.63-2.91	2.75
a	36.3 (29.7-39.3)	36.5 (31.7-42.5)	36.9 (32.8-40.7)	39.1 (33.5-44.0)	30.6	30.7 (29.6-31.1)	30-34	34
b	4.4 (4.0-4.9)	4.4 (4.0-4.8)	4.4 (4.2-4.7)	4.5 (4.3-5.2)	4.7	4.4 (4.2-4.7)	4.4-4.7	5.1
c	13.6 (12.1-17.6)	16.3 (14.9-18.5)	13.0 (11.5-15.2)	16.1 (14.1-19.5)	10.4	10.3 (9.3-11.0)	8.1-10.4	14
V	68.7 (65.9-72.1)	—	68.4 (65.4-71.0)	—	61	63 (61-66)	60-64	—
c'	4.4 (3.2-5.2)	2.8 (2.4-3.2)	4.6 (4.0-5.6)	2.9 (2.6-3.2)	—	—	4.6-5.4	—
Length of buccal cavity μm	55 (49-59)	49 (48-51)	55 (51-61)	48 (45-51)	48	42-48	53-63	50
Width of buccal cavity μm	48 (40-55)	36 (33-39)	47 (41-54)	35 (33-38)	42	40-42	40-51	40
Tail length μm	217 (161-247)	168 (154-177)	222 (198-262)	168 (154-183)	250	240 (220-260)	243-307	190
Spicules μm	—	104 (100-110)	—	99.5 (90-103)	—	—	—	110
Gubernaculum	—	27-31	—	28-32	—	—	—	35

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