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Short Communications

FIRST FINDING OF THE TREMATODE *MACYELLA POSTGONOPORUS* NEILAND, 1951 IN EUROPE

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Abstract. A description is given of the trematode *Macyella postgonoporus* Neiland, 1951, found for the first time in Europe. Its hosts *Parus major* and *Turdus philomelos* were captured on a single locality in Czechoslovakia. The discussion about the validity of the species *M. turkensis* Coil et Kuntz, 1958 is based on the original description by NEILAND and on our material.

In 1951, NEILAND discovered in the North-American bird *Ixoreus naevius* Gmelin (Pycnonotidae), distributed from Alaska to northern California, a trematode of the family Lecithodendriidae. On the grounds of measures obtained from 10 specimens he erected the new genus *Macyella* to receive the species *Macyella postgonoporus* Neiland, 1951. In 1958, COIL and KUNTZ described another species of this genus discovered in *Sturnus vulgaris* and *Turdus merulla* in Turkey, which they named *M. turkensis*.

In helminthological examination of 120 species of birds belonging mainly to the order Passeriformes (3,320 specimens examined) and captured in 50 localities, the species *Macyella postgonoporus* was detected in *Parus major*, *Turdus philomelos* and *Turdus merula* in only one locality of Czechoslovakia. The description of the trematodes (26 in total) is given in the text. All figures are drawn with the projection method at the same scale.

Macyella postgonoporus Neiland, 1951

We examined 10 birds of the family *Turdidae* and 8 birds of the family *Paridae*, which we captured at Květná, White Carpathian Mts. SE-Moravia. Of the former, one *Turdus philomelos* and one *T. merula* were positive, of the latter 3 *Parus major*, the incidence being 3—11 worms. All worms were located in the intestine of their host.

Description (all measurement in mm): small, pearshaped trematodes. Overall length 0.533—1.082 (0.856), width 0.401 to 0.705 (0.587). Cuticle armed with spines on 4/5th of the body, length 0.0086, thickness at base 0.0028 (Fig. 1A). Scales

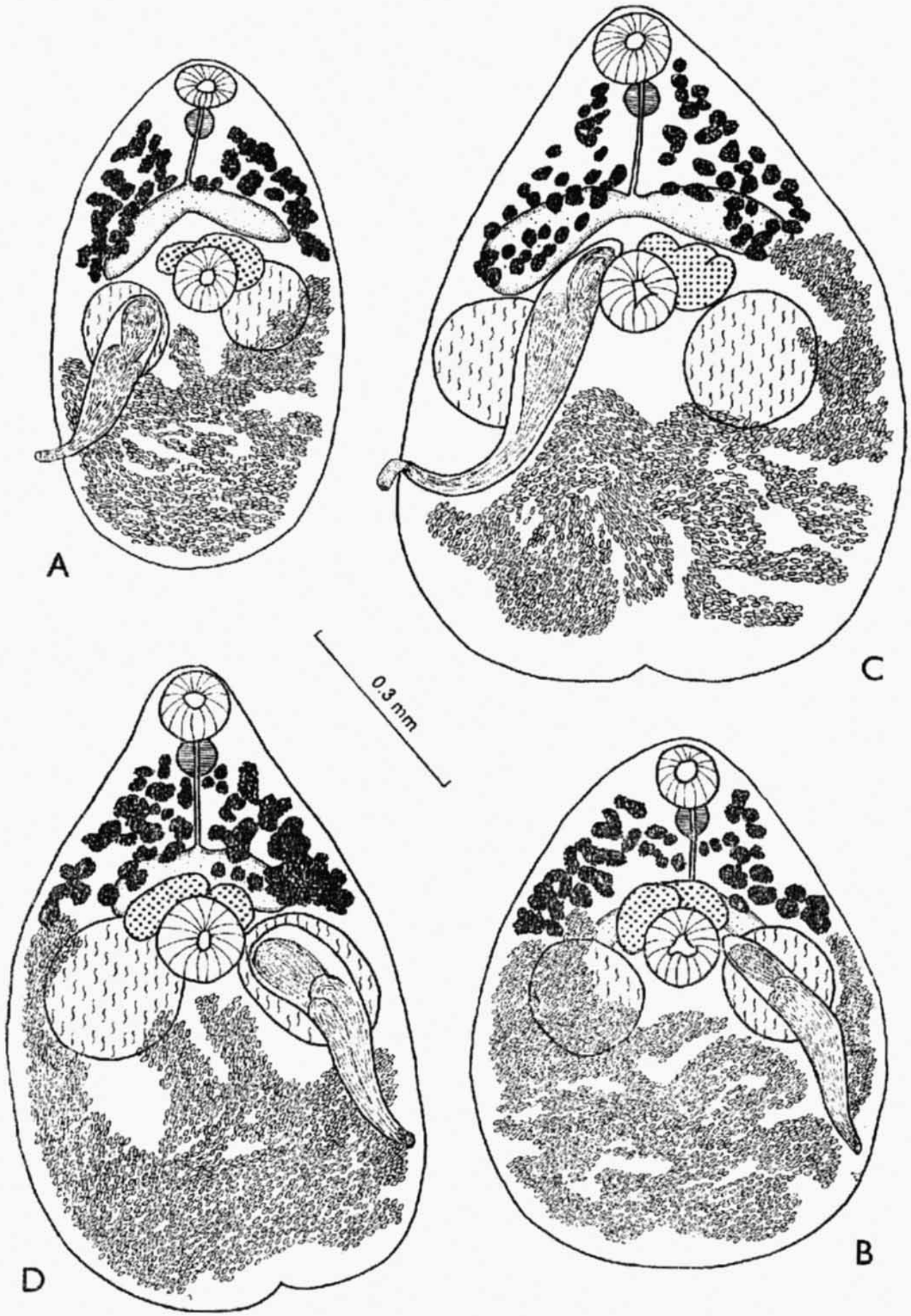

Fig. 1. *Macyella postgonoporus* Neiland, 1951 A, B — from *Turdus philomelos*, C, D — from *Parus major*

measuring 0.0056—0.007 by 0.0039—0.0042 and covering the surface of the body, could be seen on some individuals after immersion (Fig. 1B). Oral sucker terminal, size 0.073—0.123 by 0.082—0.114 (0.100 by 0.100). Ventral sucker situated in the posterior portion of the upper half of the body, size 0.098—0.139 by 0.090—0.131 (0.116 by 0.117). Distance between centres of both suckers 0.205—0.434 (0.313). Prepharynx indistinct, size of pharynx 0.032—0.065 by 0.032—0.073. Esophagus (0.032—0.114/0.072) passes close to the ovary into two lateral cecal branches which, behind their bifurcation, are directed towards the body walls and terminate close to the upper edge of the testes. Their termination could not be demonstrated precisely because it was covered by other organs mainly by the vitellaria or the uterus. Ovary elongate, of irregular shape, consisting mainly of 3 lobes, measures 0.049—0.123 by 0.123—0.262 (0.095 by 0.205), situated closely above the ventral sucker, mostly at the side of the cirrus sac. Oval testes with unlobate edges. Size of left testis 0.164—0.246 by 0.155—0.246 (0.199 by 0.202); right testis 0.164—0.221 by 0.139—0.213 (0.199 by 0.190); a major part of the testes which are placed acetabulary covers the posterior edge of the ventral sucker. Cirrus sac relatively large, straight or S-curved, length 0.180—0.434 (0.414), width 0.065—0.098 (0.084), extends laterally from the ventral sucker to the posterior edge of the body and opens laterally. Cirrus distinct, often extruded, size 0.033—0.082 by 0.017—0.021 (0.063 by 0.019). Vitellaria placed along both sides of esophagus extend from the pharynx to the edge of the anterior testis. Uterus with eggs occupies almost the entire posterior half of body. Eggs dark brown, operculated, size 0.025—0.027 by 0.012—0.017 (0.025 by 0.015).

The examined birds were captured in a valley at the piedmont of the Javorina Mt. in the White Carpathians. The valley closed in from three sides is covered with deciduous forest and shrubs. A rivulet and its numerous tributaries retain a relatively high percentage of moisture in the air. The locality lies 400 m above sea-level.

According to Coil and Kuntz (1958) the species *M. turkensis* differs from the species *M. postgonoporus* in the size of the body and the suckers (Tab. 1). However, in comparison with our material the differences between these two species are less marked or even disappearing. The specimens found in Czechoslovakia seem to form a continuous transitory line between the extreme values recorded from both species. Some differences remain only in the body width, in the size of the testes and in the extent of the cuticular spines. In our opinion these differences should be considered as features of geographical races. The continuous transitory line between the individual, extreme specimens is also visible in the figures.

The definitive hosts are birds of the order Passeriformes belonging to four families of close ecological relationship: Pycnonotidae (*Ixoreus naevius*), Turdidae (*Turdus merula*, *T. philomelos*), Paridae (*Parus major*) and Sturnidae (*Sturnus vulgaris*). In spite of some missing data in the description by Coil and Kuntz (1958) (size of the ventral sucker, distance between suckers and cirrus length) we consider the species *M. turkensis* to be a synonym of the species *M. postgonoporus* Neiland, 1951.

Table 1. Measurements of trematodes of the genus *Macyella* Neiland, 1951. Our data compared with those given by other writers

Authors		*M. postgonoporus* Neiland, 1951 material from North-American birds		*M. postgonoporus* Neiland, 1951 our material from Czecho-slovak birds		*M. turkensis* Coil et Kuntz, 1958 material from Turkish birds
Host		*Ixoreus naevius* (Turdidae)		*Parus major* (Paridae) *T. philomelos* (Turdidae)		*Sturnus vulgaris* (Sturnidae) *T. merula* (Turdidae)
Dimension of		min. max.	average	min. max.	average	min. max.
Body length		0.930—1.150	1.07	0.533—1.082	0.856	0.58—0.68
Body width		0.490—0.690	0.59	0.401—0.705	0.587	0.31—0.37
Oral sucker		0.098—0.116 × 0.087—0.103	0.098×0.104	0.073—0.123 × 0.082—0.114	0.100×0.100	0.064—0.084
Ventral sucker		0.080—0.106 × 0.087—0.106	0.098×0.098	0.098—0.139 × 0.090—0.131	0.116×0.117	—
Distance between suckers		—	—	0.205—0.434	0.313	—
Pharynx		0.030—0.053	0.047	0.032—0.065 × 0.032—0.073	0.052×0.054	0.034—0.041
Esophagus		—		0.032—0.114	0.072	0.050—0.074
Cirrus pouch		0.304—0.393 × 0.040—0.072	0.344×0.059	0.180—0.434 × 0.065—0.098	0.414×0.084	0.26
Cirrus		0.031—0.055 × 0.019—0.022	0.020×0.043	0.033—0.082 × 0.017—0.021	0.063×0.019	—
Testes	L	0.140—0.204 × 0.141—0.265	0.179×0.212	0.164—0.246 × 0.155—0.246	0.199×0.202	0.096—0.124
	R	0.112—0.210 × 0.153—0.250	0.171×0.220	0.164—0.221 × 0.139—0.213	0.199×0.190	0.096—0.124
Ovary		0.102—0.140 × 0.190—0.275	0.121×0.235	0.049—0.123 × 0.123—0.262	0.095×0.205	0.11—0.14
Eggs		0.012—0.015 × 0.023—0.026	0.014×0.025	0.012—0.017 × 0.025—0.027	0.015×0.025	0.022—0.027

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DUDEKEMIA CUBANA SP. N. (NEMATODA, RHIGONEMATIDAE) FROM THE CUBAN MILLIPEDE *ORTHOMORPHA COARCTATA*

While collecting helminths from various species of Cuban Diplopoda, we found nematodes of the family Rhigonematidae, genus *Dukedemia* Artigas, 1930 in the intestine of the species *Orthomorpha coarctata* (Saussure). Since these nematodes were distinctly different from all species of this genus described until now we are describing them as a new taxon.

Dudekemia cubana sp. n. Fig. 1

Typical host: *Orthomorpha coarctata* (Saussure) Diplopoda; typical locality: Havana (Arroyo Naranjo), Cuba. Nematodes were recovered from 8 of the 35 millipedes examined (worm burden 1—4 nematodes per host). Our material consisted of 9 ♂♂ and 10 ♀♀ (only two were fully mature).

Description: Viable worm of white colour, cuticle smooth, anterior portion of body covered with very fine and short cuticular bristles. Mouth surrounded by 3 low lips and a feebly developed cephalic collar. Vestibule short. Oesophageal corpus very developed, bulbus provided with a valvular apparatus.

Holotype (♂): Overall length of body 3.12 mm, maximum width 0.31 mm. Overall length of oesophagus 0.33 mm. Oesophageal corpus 0.22 mm long, 0.14 mm wide. Width of bulbus 0.11 mm. Nerve ring situated at 0.080 mm from anterior end of body, excretory pore at 0.24 mm. Spicules equal in shape and size, their proximal end hook-shaped, the distal end sharply pointed. Spicule length 0.182 mm, width 0.021 mm. Caudal alae rudimentary. Of the 8 pairs of caudal papillae 4 are precloacal and 4 postcloacal. Cloaca at 0.12 mm from end of tail.