

NEW RECORDS OF HELMINTH PARASITES FROM CORMORANTS (*PHALACROCORAX CARBO* (L.)) IN CZECHOSLOVAKIA

The helminth fauna of cormorants (*Phalacrocorax carbo*) in Czechoslovakia is so far little-known. Small numbers of these fish-eating birds have hitherto been examined only by Votěchovská—Mayerová (Vojtěchovská—Mayerová M., 1952: Věst. čs. Společ. zool. 16: 71—88) and Ryšavý (Ryšavý B., 1958: Věst. čs. Společ. zool. 22: 121—129) from the only locality in southern Slovakia (a colony of cormorants near Podunajské Biskupice) who recorded several helminth species from them. Data concerning the parasites of cormorants from Czech lands are completely lacking.

In autumn 1987, in an attempt to reduce the number of cormorants in their recently established colony near Třeboň (Staré jezero, fish pond system near Chlum u Třeboně) in South Bohemia, a permission was given for shooting a small number of these otherwise protected birds. Two specimens of *Ph. carbo*, shot in here on 15 November 1987, were provided for helminthological examination. A total of 6 helminth species were recorded from them two of which, the trematode *Petasisiger exaeretis* and the nematode *Desmidocercella incognita*, had not previously been reported from Czechoslovakia; their brief descriptions are given in the following text.

Petasisiger exaeretis Dietz, 1909 (Fig. 1 A, B)
Description: Length of body 1.40—1.92 mm, maximum width 0.32—0.45 mm. Head collar 0.187—0.245 mm wide, bearing 27 spines from

0.032—0.070 mm long. Four angular spines being largest, of which 2 being located orally and 2 aborally. Five lateral spines arranged in one row, nine dorsals in two rows. Anterior part of body covered by tiny tegumental spines. Oral sucker subterminal, size 0.067—0.087 by 0.062—0.077 mm, followed by short prepharynx. Muscular pharynx measuring 0.062 to 0.077 × 0.040—0.057 mm. Oesophagus bifurcating shortly in front of acetabulum, intestinal caeca reaching to posterior part of body. Acetabulum, size 0.175—0.225 × 0.147—0.192 mm, located at beginning of second third of body. Oval cirrus sac (0.190—0.262 × 0.140—0.200 mm) laying behind its anterior margin. Testes unlobed, tandem, situated at beginning of posterior half of body. Anterior testis 0.101—0.187 × 0.110 to 0.290 mm, posterior one 0.162—0.275 by 0.137—0.265 mm. Spherical ovary measuring 0.076—0.120 × 0.075—0.115 mm, being situated somewhat laterally in front of testes. Uterus containing small number of eggs; size of eggs 0.083—0.093 × 0.040—0.057 mm. Vitellaria starting at acetabulum level, running laterally and filling in space below testes.

This species was recorded from the small intestine of both cormorants examined (intensity 31 and 112 specimens). According to Bykhovskaya—Pavlovskaya (Bykhovskaya—Pavlovskaya I. E., 1962: Trematodes of birds of the USSR fauna. Publ. House of Acad. Sci. USSR, Moscow—Leningrad, 407 pp.

In Russian) and Yamaguti (Yamaguti S., 1971: Synopsis of digenetic trematodes of vertebrates Pts. 1, 2. Keigaku Publ. Co., Tokyo, 1074 pp. + 349 Plts.), *P. exaeretus* is a specific parasite of cormorants widespread in western and central Europe as also in palaeartic Asia and Australia. It has not hitherto been reported from Czechoslovakia.

Desmidocercella incognita Solonitsin, 1932 (Fig. 1 C-G)

Description: Small nematodes with slightly transversely striated cuticle. Anterior end with 8 cephalic papillae and pair of amphids. Anterior part of short vestibule expanded, funnel-shaped. Oesophagus short, about 1/8—1/9 of body length.

Male: Length of body 4.34—4.42 mm, width 0.204 mm. Vestibule 0.027 long, width at its anterior part 0.021 mm, in posterior part 0.012 mm. Length of muscular oesophagus 0.174 mm, of glandular one 0.294—0.303 mm. Nerve ring 0.135—0.141 mm and excretory pore 0.204—0.207 mm, respectively, from anterior extremity. Tail rounded, 0.075 mm long. Spicules 0.444—0.582 mm and 0.270—0.285 mm long. Three pairs of preanal and four pairs of postanal papillae present.

Female: Length of body 5.00—5.17 mm, maximum width 0.231—0.245 mm. Vestibule 0.027 mm long, width at its anterior part 0.024 mm, in posterior part 0.012 mm. Length of muscular oesophagus 0.171—0.186 mm, that

of glandular one 0.327—0.360 mm. Nerve ring 0.141—0.147 mm and excretory pore 0.201 to 0.210 mm, respectively, from anterior extremity. Tail rounded, 0.063 mm long. Vulva postequatorial, situated 2.27—2.45 mm from posterior end of body. Mature eggs (containing larva) measuring 0.054—0.060 × 0.030—0.033 mm.

This species was found in the air sacs of one of the two cormorants examined (intensity 18 nematodes). According to Skryabin et al. (Skryabin K. I., Sobolev A. A., Ivashkin V. M., 1967: Spirurata of animals and man and the diseases caused by them, Pt. 4. Osnovy nematodologii 16. Nauka, Moscow, 624 pp. In Russian) and Baruš et al. (Baruš V., Sergeeva T. P., Sonin M. D., Ryzhikov K. M., 1978: Helminths of fish-eating birds of the Palaeartic Region I, Nematoda. Academia, Prague, 318 pp.), *D. incognita* is widely distributed over Europe and palaeartic Asia. It has not hitherto been reported from Czechoslovakia.

Besides both the above mentioned species, the following parasites were also recorded from

the cormorants examined: the cestode *Paradilepis scolecina* (Rudolphi, 1819) (intensity 593 and 780 specimens), the trematodes *Hystero-morpha triloba* (Rudolphi, 1819) (intensity 2 and 16 specimens) and *Paryphostomum radiatum* (Dujardin, 1845) (intensity 2 and 8 specimens), and the nematode *Contracaecum rudolphii* Hartwich, 1964 (intensity 10 and 17 specimens); all these species have already been reported from Czechoslovakia by Vojtěchovská—Mayerová (1952: op. cit.), Ryšavý (1958: op. cit.) and Baruš et al. (1978: op. cit.).

The authors are indebted to Dr. Jan Ševčík of the UNESCO Biosphere Reserve, Třeboň Base (CHKO Třeboňsko) for his kindness in providing cormorants for helminthological examination.

F. MORAVEC, V. NAŠINCOVÁ and T. SCHOLZ
Institute of Parasitology, Czechoslovak Academy of Sciences, České Budějovice

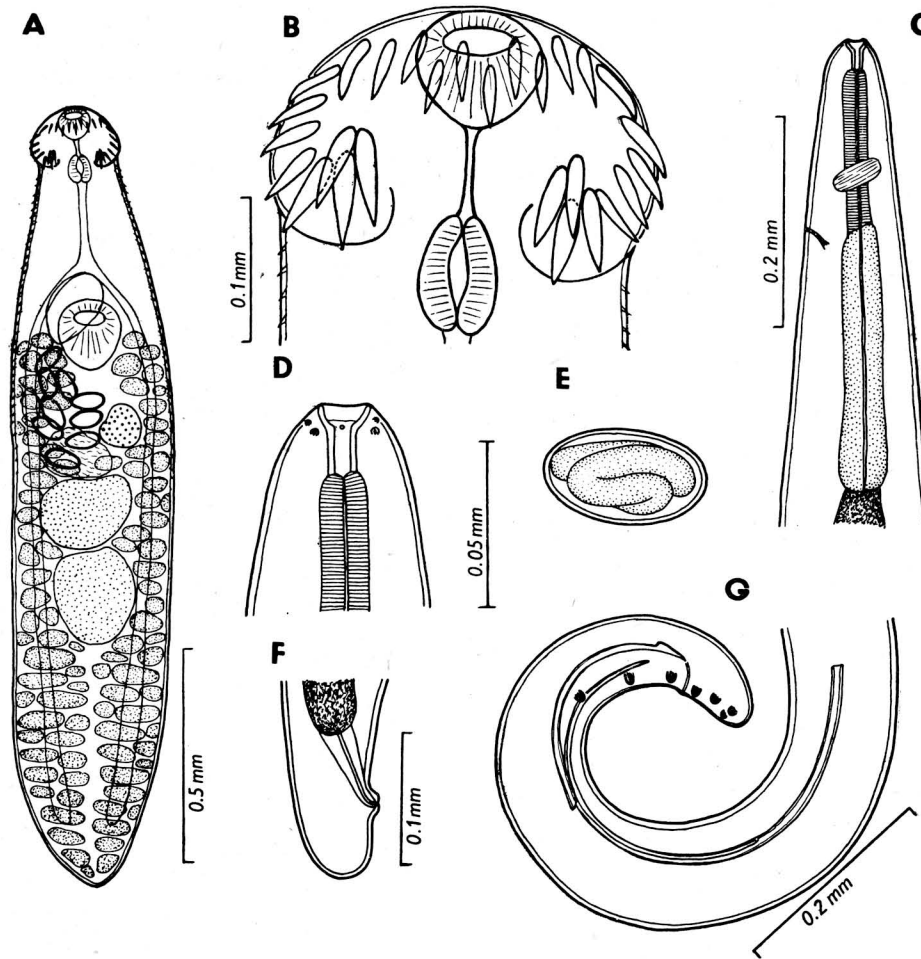


Fig. 1. A—B — *Petasiger exaeretus* Dietz, 1909 (A — total view, B — anterior end); C—G — *Desmidocercella incognita* Solonitsin, 1932 (C — anterior end of body, D — head end, E — mature egg, F — tail of female, G — posterior end of male).