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Helminth fauna of the racoon dog (*Nyctereutes procyonoides* Gray, 1834) in Belorussian Polesie

Received: 10 October 2001 / Accepted: 5 November 2001 / Published online: 13 June 2002
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The racoon dog is a canid species that has been introduced into Belarus and is now widespread throughout nearly the whole territory of this country. Acclimatization of this animal began in the 1930s. To date, racoon dogs have accumulated many helminths from the Belorussian aboriginal animals.

This report is the result of the helminthological examination of 78 carcasses and 179 stools of racoon dogs, carried out in natural and transformed ecosystems of Belorussian Polesie (southern part of Belarus, Brest, Gomel regions) between 1981 and 1999. The animals were killed by hunters. The stools were gathered by us on drainage channel banks.

The total rate of infection of racoon dogs by helminths was 83.3% (assessed by helminthological dissection, organ compression). These animals are hosts to 25 species of helminths (Table 1). *Alaria alata*, *Isthmiophora melis*, *Toxocara canis* and *Uncinaria stenocephala* were the most frequently detected parasites. The prevalence of

these helminths in the intestine of racoon dogs was 47.4%, 24.4%, 20.5% and 52.6, respectively.

The eggs and larvae of helminths were found in 93.1% of racoon dog faecal samples. The most frequently registered were larvae of *Strongylata* spp (45.8%) and eggs of *A. alata* (50.8%), *Taenia* spp (24.6%), *Toxocara* spp (23.5%) and *U. stenocephala* (21.8%).

All helminth species (except *Strongyloides erschovi*) are important for medical and veterinary sciences. These species of helminth are known as parasites of humans (all trematode species, *Ancylostoma caninum*, *Dipylidium caninum*, *Eucoleus aerophilus*, *Mesocestoides lineatus*, *Spirometra erinacei*, *Taenia crassiceps*, *T. hydatigena*, *Toxascaris leonina*, *Toxocara canis*, *Trichinella* spp, *Trichuris vulpis*, *Uncinaria stenocephala*), cats and dogs (all helminth species) and pigs (all trematode species except *Pseudamphistomum truncatum*, *D. caninum* as a casual parasite, *S. erinacei*, *Taenia hydatigena*, *Trichinella* spp).

Table 1. Helminth infection of racoon dogs in Belorussian Polesie

Species of helminth	Number infected	Prevalence (%)	Number of helminths (min–max)
Trematoda			
<i>Alaria alata</i> (Goeze, 1782)	37	47.4	4–800
<i>Isthmiophora melis</i> (Schrank, 1788)	19	24.4	2–7
<i>Metorchis bilis</i> Braun, 1890	2	2.6	1–4
<i>Opisthorchis felineus</i> (Rivolta, 1884)	3	3.9	1–5
<i>Pseudamphistomum truncatum</i> (Rudolphi, 1819)	1	1.3	4
Cestoda			
<i>Dipylidium caninum</i> (Linnaeus, 1758)	3	3.9	1–3
<i>Mesocostoides lineatus</i> (Goeze, 1782)	2	2.6	1–3
<i>Spirometra erinacei</i> (Rudolphi, 1819)	2	2.6	1–7
<i>S. erinacei</i> , larvae	1	1.3	3
<i>Taenia crassiceps</i> (Zeder, 1800)	4	5.1	1–15
<i>T. hydatigena</i> Pallas, 1766	3	3.9	1–3
<i>T. pisiformis</i> (Bloch, 1780)	7	9.0	1–6
<i>T. polyacantha</i> (Leuckart, 1856)	11	14.1	1–5
Nematoda			
<i>Ancylostoma caninum</i> (Ercolani, 1859)	1	1.3	3
<i>Aonchotheca putorii</i> (Rudolphi, 1819)	4	5.1	1–5
<i>Crenosoma vulpis</i> (Rudolphi, 1819)	4	5.1	1–3
<i>Eucoleus aerophilus</i> (Creplin, 1839)	7	9.0	1–6
<i>Molineus patens</i> (Dujardin, 1845)	3	3.9	1–4
<i>Pearsonema plica</i> (Rudolphi, 1819)	12	15.4	1–6
<i>Strongyloides erschovi</i> Popova, 1938	1	1.3	3
<i>Toxascaris leonina</i> (Linstow, 1902)	8	10.3	2–5
<i>Toxocara canis</i> (Werner, 1782)	16	20.5	1–10
<i>Trichinella</i> spp, larvae	8	10.3	1–10 in 1 g muscle tissue
<i>Trichuris vulpis</i> Froelich, 1789	1	1.3	2
<i>Uncinaria stenocephala</i> (Railliet, 1854)	41	52.6	1–40
Acanthocephala			
<i>Macracanthorhynchus catulinus</i> Kostylew, 1927	6	7.7	1–3