

The occurrence and muscle distribution of *Trichinella britovi* in martens (*Martes* spp.) in the Głęboki Bród Forest District, Poland

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It is well known that free-living animals act as a host for many dangerous parasites eg. nematodes of genus *Trichinella*. Carnivores from the Mustelidae family are a potential reservoir for this nematodes, due to their wide spread throughout the whole country. Therefore, the aims of the study were to assess the presence of *Trichinella* nematodes, and to determine the muscle distribution of these parasite in free-living martens from the Głęboki Bród Forest District (Poland).

Trichinella larvae were obtained by digestion method from seven group of muscles (tongue, diaphragm, masseter, upper and lower forelimb, upper and down hindlimb). DNA was extracted from single larvae using the protocol described by Zarlenga *et al.* (1999). Multiplex PCR was performed to identify *Trichinella* larvae at species level. The PCR products were analyzed on 2% agarose gels stained with GelRed (Biotium) in TAE buffer at 70 V, and analyzed under UV light using the ChemiDoc™ MP Imaging System (BioRad).

Trichinella larvae were detected in 10 from 57 examined martens (17.54%), with prevalence: 16.67% among females, and 18.18% among males. All larvae were classified as *T. britovi*. The intensity of infection ranged from 0.17 to 37.29 larvae per gram (LPG) (mean 5.43; median 3.4). The highest larval burdens were observed in the tongue and diaphragm in both sexes.

The results of the study show that martens from Głęboki Bród Forest District act as a reservoir of *T. britovi*, and they may be an important element in the sylvatic cycle of this nematode species in examined area. However, further studies are necessary to evaluate actual epidemiological situation throughout wildlife in Poland.

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