

DISTRIBUTION OF *TRICHINELLA* SPECIES IN POLAND

Summary

At present, the genus *Trichinella* comprises eleven species of five encapsulated muscle larvae (*T. spiralis*, *T. nativa*, *T. britovi*, *T. nelsoni* and *T. murrelli*), three not encapsulated (*T. pseudospiralis*, *T. papuae* and *T. zimbabwensis*) and three genotypes of non-specific status (T6, T8, T9). The diagnostic characteristics of these species are based on biological, biochemical and genetic criteria. In Poland two of these genotypes *T. spiralis* and *T. britovi* are present.

The distribution in Poland of *Trichinella* species in wild animals, red foxes, wild boars, and domestic pigs is presented. Muscles, mainly diaphragm and forelegs, were collected from animals killed by hunters in different regions of Poland between 1996–2004, and *Trichinella* were collected after artificial digestion of muscles, and preserved in absolute alcohol until molecular identification.

Of the 21 *Trichinella* isolates from domestic pigs 1 was obtained from *T. britovi*, 20 from *T. spiralis*. Of the 53 *Trichinella* isolates from red foxes 40 were obtained from *T. britovi*, 6 from *T. spiralis*, 4 were after mixed infection with two species and 3 from not identified ones. Of the 92 *Trichinella* isolates from wild boars 65 were obtained from *T. spiralis*, 18 from *T. britovi*, 2 after mixed infection and 6 were not identified. Additionally, 3 *T. britovi* isolates were from wolves from Bieszczady, 3 *T. spiralis* isolates were obtained from raccoon dogs and 1 *T. spiralis* isolate was from marten.

Molecular techniques (DNA analysis) confirmed that two *Trichinella* species: *T. spiralis* and *T. britovi* are involved in the epidemiology of trichinellosis among humans in Poland.