

## Host specificity of Ostertagiinae in ruminants

**Anna Wyrobisz, Jerzy Kowal, Paweł Nosal**

Department of Environmental Zoology, Institute of Animal Sciences, University of Agriculture in Krakow, al. Mickiewicza 24/28, 30-059 Krakow, Poland

Corresponding Author: Anna Wyrobisz; e-mail: wyrobisz@gmail.com

Nematodes of the order Strongylida, particularly those of the subfamily Ostertagiinae, are the most common parasites found in ruminants. They constitute a highly diverse group of parasites, including species with narrow and broad host specificity. Additionally, these species can be specific to a host or a group of hosts.

The following parasite-host relationships are known between ostertagiine species, and their minor morphs, and our local ruminants: *Ostertagia leptospicularis* / *O. kolchida* (mainly roe deer and red deer), *O. antipini* / *O. lyrateformis* (mainly moose), *O. drozdzi* / *O. ryjikovi* (mainly fallow deer), *O. ostertagi* / *O. lyrata* (seems to be strongly related to Bovidae but can also occurs in roe deer), *Teladorsagia circumcincta* / *T. trifurcata* (mainly small ruminants, Cervidae occasionally), *Spiculoptera asymerica* / *S. quadricpiculata* (mainly fallow deer), *S. spiculoptera* / *S. mathevossiani* (mainly red deer and roe deer), *S. dagestanica* (mainly moose). Members of the order *Marshallagia* have not yet been stated. In some cases, particular morphotypes are still treated as two separate species, which interferes with the diversity of the parasitic fauna.

However, data about the occurrence of these species in other European countries differs from our local findings. Our preliminary research on various ruminants suggest that these differences can be due to the molecular phenomena that complicate unambiguous species identification, in particular the presence of species complexes. On the other hand, it is possible that slightly different morphological features might be merely host-induced changes. As the biodiversity of Ostertagiinae is not sufficiently recognized, in-depth investigation of this subfamily is necessary to gather valid and comparable data.

This research was financed by the Ministry of Science and Higher Education of the Republic of Poland.