

# The presence of Anisakidae Nematodes in the Baltic herring

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Nematodes from the Anisakidae family have a complex developmental cycle and their range is limited by the presence of intermediate and definitive hosts. The primary intermediate hosts are marine invertebrates, mainly the *Euphausiacea*, while fish serve as paratenic hosts and marine mammals as definitive hosts. Whales are definitive hosts for *Anisakis simplex*, seals for *Contracaecum osculatum* and *Pseudoterranova decipiens*.

In recent years, German and Danish studies have observed an increase in the number of seals in the Baltic Sea, which can increase the extensity and intensity of infestation of fish nematodes, for which these mammals are definitive hosts. Herring is one of the most common species of fish in the Baltic Sea and owing to its consumption value, is caught in great amounts. Herring belonging to three spawning stocks, categorized according to differences in otolith structure, can be encountered in the Polish zone of the Baltic Sea: spring herring coastal, spring open sea herring and autumn herring.

The study was carried out from autumn 2014 to spring 2016. In total, 1050 herring (*Clupea harengus membranes*) were examined. The investigated herring were found to be infected mainly with *A. simplex* larvae, very rarely with *C. osculatum* and *P. decipiens*. The extensity of infection was 22.71% and the mean intensity 3.98. The highest extensity (62%) and intensity of infection (5.35) was found in fish from the "W" spawning group (spring coastal herring).