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Anisakid nematode infestation in beaked redfish (*Sebastes mentella*) from three areas of the North Atlantic**Regina Klapper**^{1,2}, Thomas Kuhn², Horst Karl¹, Sven Klimpel²¹ Department of Safety and Quality of Milk and Fish Products, Max Rubner-Institut, Hamburg, Germany² Institute for Ecology, Evolution and Diversity, Goethe-University; Biodiversity and Climate Research Centre; Senckenberg Gesellschaft für Naturforschung, Frankfurt/Main, Germany

In North Atlantic waters, redfish (*Sebastes* spp.) comprise two highly commercially utilized species. One species is the beaked redfish *Sebastes mentella* that is found mainly in the Northwest Atlantic, Irminger, Norwegian, and Barents Sea, as well as in the Northeast Atlantic.

Naturally occurring nematodes have a complex life-cycle in which they parasitize invertebrate and vertebrate hosts. Humans can be accidental hosts by eating raw or undercooked fish that contain nematodes, mainly of the genus *Anisakis*. Consumption of these larvae can cause zoonotic infections with clinical symptoms. Therefore, a study was conducted in order to assess and compare the infestation of nematode parasites in the internal organs and flesh of redfish *S. mentella* from three areas of the North Atlantic.

A total of 300 *S. mentella* were sampled in the three areas Tampen (Northern North Sea), Bear Island (Northeast Atlantic), and East Greenland (Irminger Sea). Intestines and fillets were analysed using the UV-Press method (Karl and Leinemann, 1993). Identification to the genus level was carried out morphologically. For identification to the species level, the rDNA region comprising the ITS-1, 5.8S, ITS-2 and flanking sequences (ITS+) of various nematodes was sequenced (Zhu et al. 2000, Kuhn et al. 2011).

Differences between the three areas could be detected by a lower infestation of nematodes in redfish from Greenland. Prevalences of fish were 94% in fish from Tampen, 92% in Bear Island, and 75% in Greenland. Also the intensity of infection was significantly lower in samples from Greenland. Of those nematodes found in the flesh, 92-97% were localized in the belly flaps.

The infestation level of anisakid nematodes in the flesh of beaked redfish was relatively low (mean abundance= 3.76), and may even be lowered by removal of the belly flaps. The study will further give indications on the final host distribution.