



WEFTA 2014

SEAFOOD science for a changing demand

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Title *Dioxins and anisakid species in cod liver from Greenland – consumer related aspects*

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Abstract

Canned cod liver (Foie de Bacalao) is a product of regional interest in various countries. It is very rich in vitamin A and D and a good source for w-3 polyunsaturated fatty acids. But cod livers can be heavily contaminated with dioxins and dl-PCB¹⁾. Liver from the North- and Baltic Sea are not suitable for consumption, but new data confirmed that cod liver from Greenland is only low contaminated.

Cod livers are also frequently infected with anisakid species and information on nematode infection parameters are as well essential to use livers from Greenland as raw material for canned products. Heavily infected products can cause aesthetical and allergenic problems. Data will be given on actual contamination levels with dioxins and dl-PCB as well as on the prevalence, infection intensity and abundance of anisakid larvae in cod livers from Greenland.

Samples were taken in autumn 2010 and 2013 during several cruises of the FRV W. Herwig III from cod caught in fishing areas east of Greenland.

*With 5 ng WHO-TEQ₍₂₀₀₅₎/kg ww. the sum of dioxins and dl-PCB kept well below the EU limit of 20 ng/kg ww.. Quantitative determination of the parasite load showed that cod liver from Greenland waters were heavily infected with *Anisakis simplex* and partly also with *Pseudoterranova decipiens*.*

Virtually all 100 cod livers were infected with anisakid nematodes, the prevalence was 99 %. Investigations of commercial available canned liver products from Icelandic waters confirmed high infection levels.

- 1) Karl, H., Lahrssen-Wiederholt, M. (2009). Dioxin and dioxin-like PCB levels in cod liver and – muscle from different fishing grounds of the North- and Baltic Sea and the North Atlantic. *J. Consumer Protection and Food Safety* 4: 247-255.

Session to be presented in? *Session 1: Safety evaluation and emerging risks*

Oral presentation