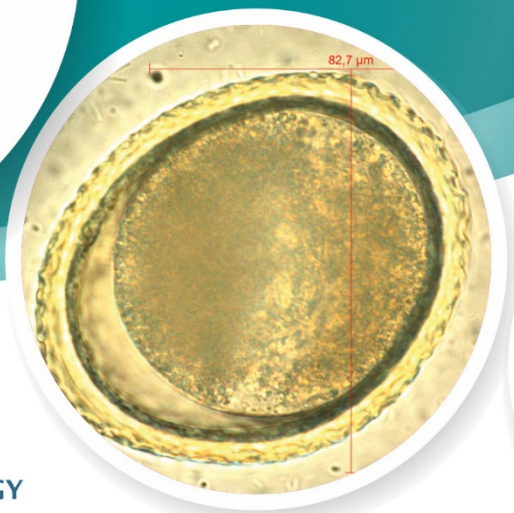
COST Action FA1408:
European Network for
Foodborne Parasites (EURO-FBP)

EURO-FBP
European Network for Foodborne Parasites



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EURO-FBP: What next?

Final meeting for COST Action Euro-FBP (FA1408)

and

FOODBORNE PARASITES CONFERENCE

13th-14th February 2019

Oeiras - PORTUGAL

OCCURRENCE AND VIABILITY OF *ANISAKIS* SPP. LARVAE IN READY TO EAT PRODUCTS MADE OF HERRING (*CLUPEA HARENGUS*) SOLD IN ITALY

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The study aimed to assess the occurrence and viability of *Anisakis* spp. larvae in ready to eat products made of herring, a common host of *Anisakis* spp. and the third most commercialized fish species in the EU. A total of 135 products consisting of 50 smoked whole specimens and 85 filleted products (25 smoked, 30 marinated, 30 canned) were sampled from 2016 to 2018. Viscera and muscle of whole herrings were visually inspected and separately digested. Filleted products were also visually inspected and digested. Larvae viability was assessed, then they were counted and microscopically identified to genus level. A subsample was molecularly identified. At least one *Anisakis* spp. larva was found in 56 products (41.5%), for a total of 1715 larvae collected (0-172 larvae/product). Most of the larvae (91%) were found in the viscera of 49 of the 50 whole herrings (98%). A highly significant difference was observed between the positivity rate and larval density at muscle level, as 149 larvae were found in the muscle of 31 whole herrings (positivity rate 62%, 0.022 larval density/g), while only 7 larvae were found in the 85 filleted products (positivity rate 7%, 0.001 larval density/g). Larvae were molecularly identified as *A. simplex*. The study showed that obviously contaminated products are commercialized. All the larvae were dead, proving a negligible risk of developing anisakiasis. However, their allergenic potential is debated and the significant difference between muscle infection levels in whole and filleted herrings may result in a different risk of exposure to antigens.