

Nematodes in cod from the NE Atlantic and how to cope with them

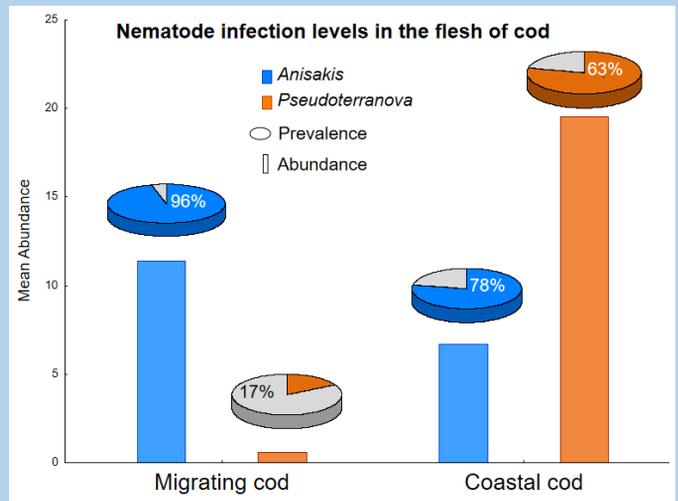
- **Parasitic nematodes** commonly occur in commercially harvested whitefish species incl. **Atlantic cod** (*Gadus morhua*).
- The most important nematode types are **Anisakis**, also known as the **herring- or whale worm**, and **Pseudoterranova**, commonly called **cod- or seal worm**, as they use whales and seals as final hosts, respectively.
- These parasites may cause a gastrointestinal disease known as **anisakidosis** since both are capable of provoking human infections following consumption of parasitized raw, marinated or undercooked fish.



Cod were fished in the Norwegian- or Barents Sea and checked for nematodes by applying the UV-press method (ISO 23036-1).

The samples consisted of both **migrating cod** and **coastal cod**.

General infection characteristics:



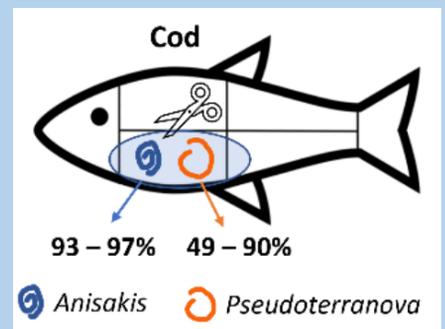
Anisakis shows generally high prevalence (percentage of infected fish) but low to moderate abundance in the fillets of both cod stocks.

Pseudoterranova shows low infection levels in migrating cod but may reach high prevalence and abundance levels in the flesh of coastal cod.



Seal worms are more easily spotted in the flesh due to their red-brownish shade.

Trimming the fillets by removing the belly flaps may reduce the *Anisakis* load by up to 97%, while 49% to 90% of *Pseudoterranova* can be removed by trimming of the fillets of migrating cod and coastal cod, respectively.



CONCLUSIONS

- Trimming the fillets by removing the belly flaps may strongly reduce the number of nematodes in the flesh of cod.
- Plain visual inspection and candling may be used to detect and consequently remove some nematodes, especially seal worms, that otherwise would be visible in the fillets.
- Deep-freezing of cod fillets for at least 24 h or proper heating to a core temperature of ≥ 60 °C will largely prevent any health issues due to the consumption of fresh cod.