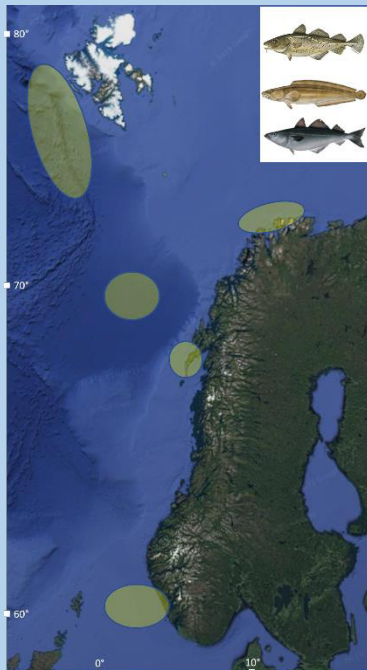


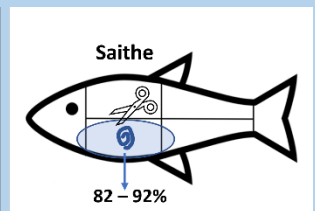
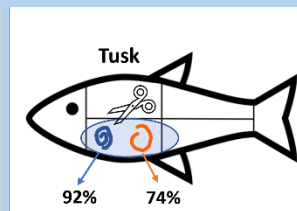
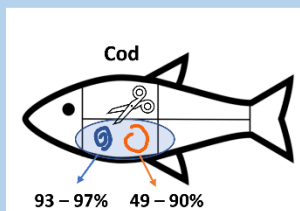
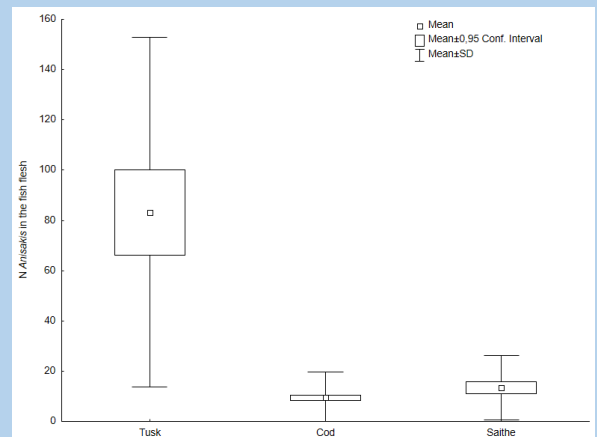
# Nematodes in codfish from the NE Atlantic and how to cope with them

- **Parasitic nematodes** commonly occur in commercially harvested whitefish species such as **cod**, **saithe** and **tusk**.
- 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, tusk and saithe were fished in the Norwegian- or Barents Sea and checked for nematodes by applying the UV-press method (ISO 23036-1).

Cod and saithe show low to moderate *Anisakis* levels in the fillets while tusk may reach up to 10 times higher infection levels.



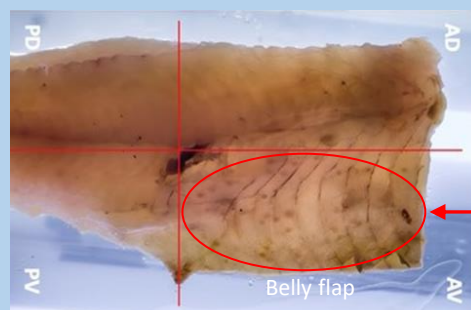
 *Anisakis*

 *Pseudoterranova*

**Trimming of the fillets by removing the belly flaps may reduce the *Anisakis* load between 82% and 97%**



Seal worms show much lower infection levels than *Anisakis* and are more easily spotted due to their red-brownish appearance in the flesh.



Whale worms are hard to spot in the flesh of the three fish species.

Most worms lodge in the belly flaps.

Plain visual inspection or candling on a light table may only detect worms that occur in clusters close to the inner surface of the fillets.

## CONCLUSIONS

- Trimming of the fillets by removing the belly flaps may strongly reduce the number of *Anisakis* in the flesh of these codfish species.
- 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.