

Real-time catch monitoring in demersal trawl fisheries

Ludvig Ahm Krag: lak@aqua.dtu.dk
Mette M. Svantemann

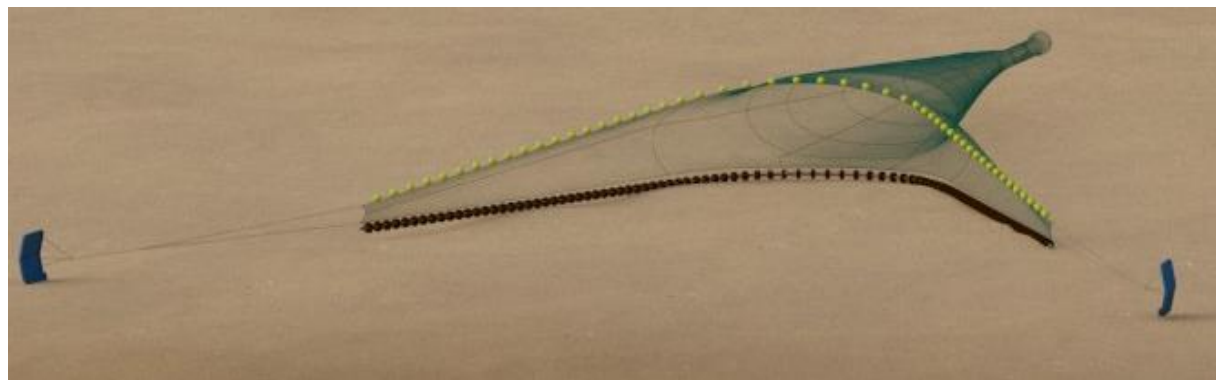


Funded by: H2020 SmartFish, EHFF TechnoFish, EHFF AutoCatch, EHFF SELECT



Background for innovation

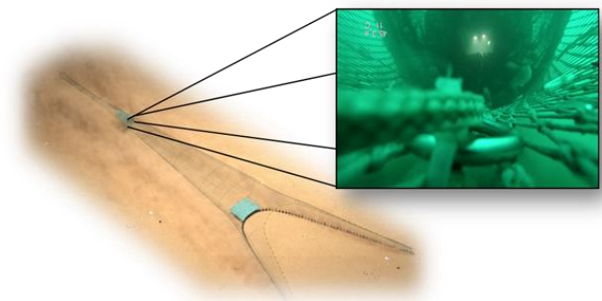
- Demersal trawl fisheries are today facing:
 - ambitious management and consumer expectations
 - a more complex range of sustainability parameters (bycatch, habitat interaction, CO2)
 - negative public narrative
- Demersal trawl fisheries need to be efficient, precise and transparent!
 - The core challenge is that we are trying to optimize a **blind process!**
 - **No quick fix** – a new selective fishing gear will not prepare demersal trawling for the future!



The innovation - a real-time trawl camera and automatic image processing using AI



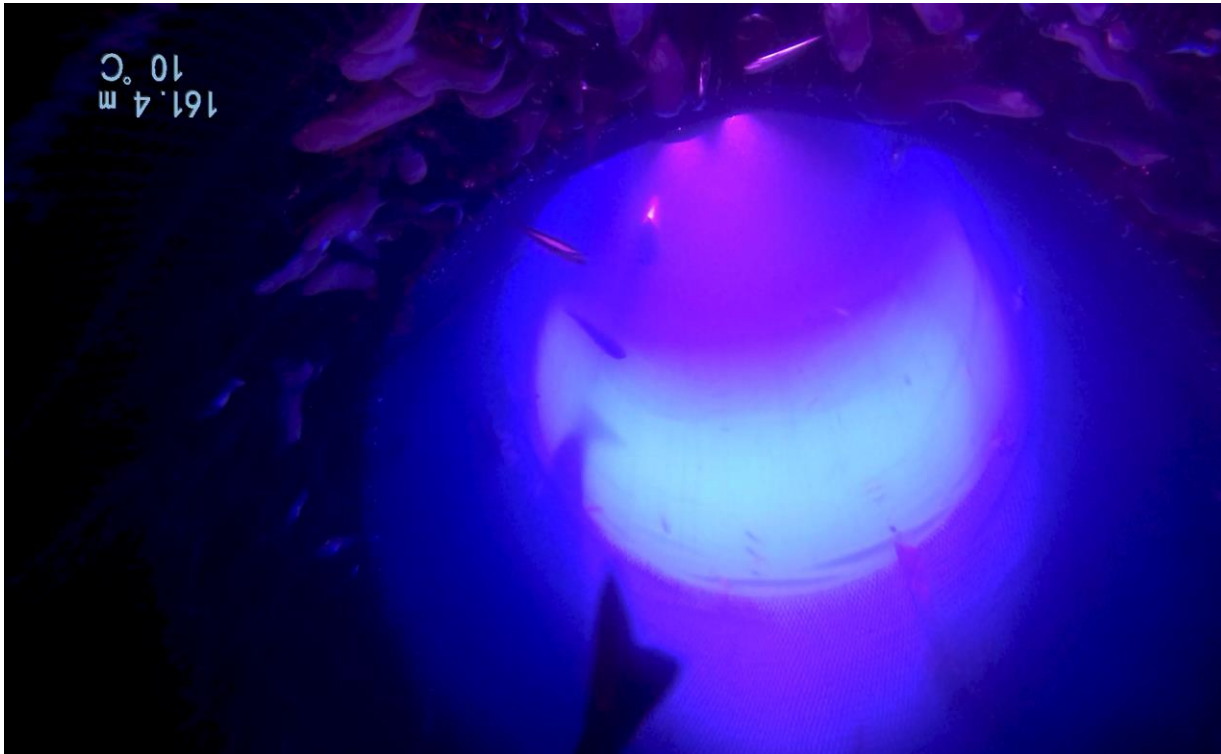
Simple integration



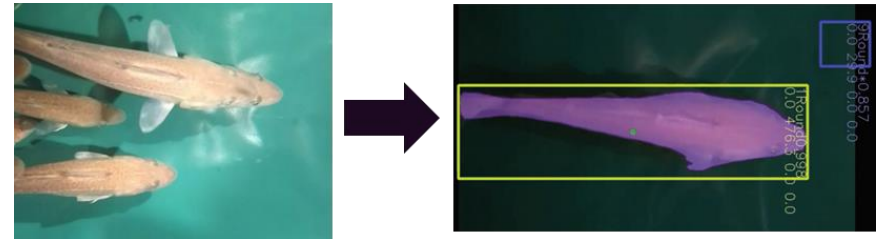
Commercially available today

<https://seamech.dk/seascout/>

Image acquisition and automatic catch description



We digitize the catching process – anything is possible



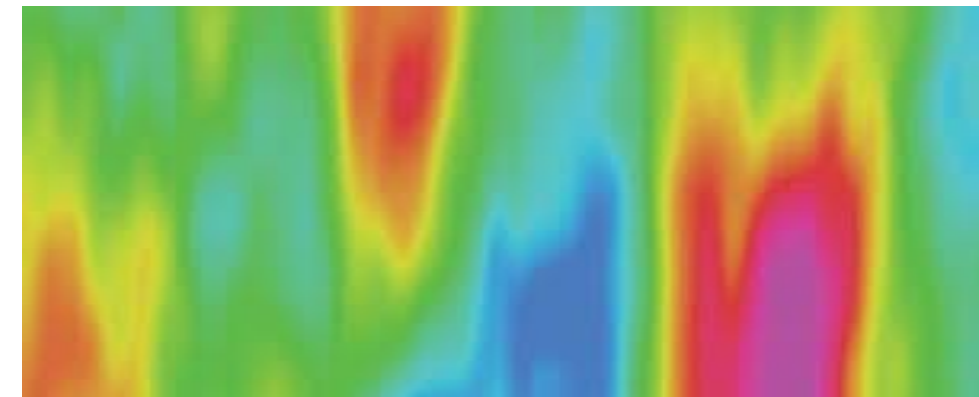
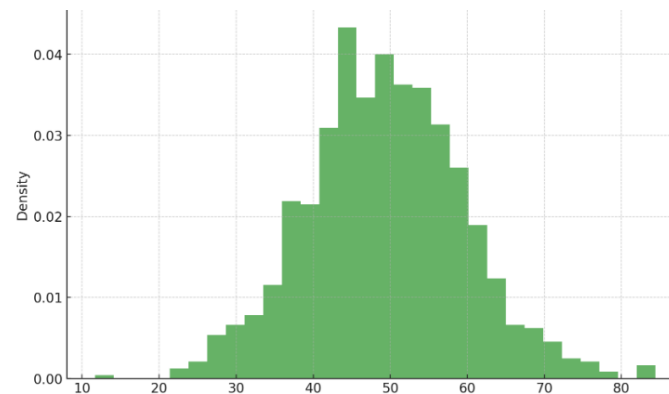
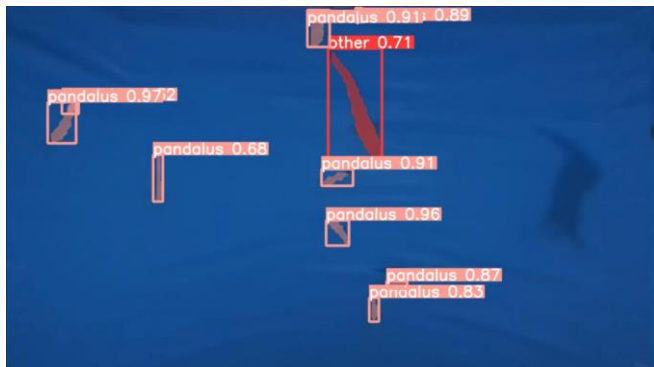
Objectives sought by the innovation

Real-time decision tool:

- increase precision
- increase catch efficiency
- reduce bycatch
- reduce habitat/CO2 – fish when it make sense
- increase transparency – new labeling



Decision-tools: Real-time species/length/weight description



Bottlenecks for up-take

The innovation:

- hardware developed and commercially available today (<https://seamech.dk/seascout>)
- extensive software in development
- can prepare demersal trawling for current and future demands

Industry up-take:

- first systems are installed on-board commercial vessels
- lack of clear economical incentive for investment

Bottleneck:

- lack of clear vision for demersal trawling from managers and industry
 - ➔ what should demersal trawling look like in 5- and 10-years time?

(Funding seems sufficient but innovation strategy from industry is unclear)