



From *academia* to industry and back

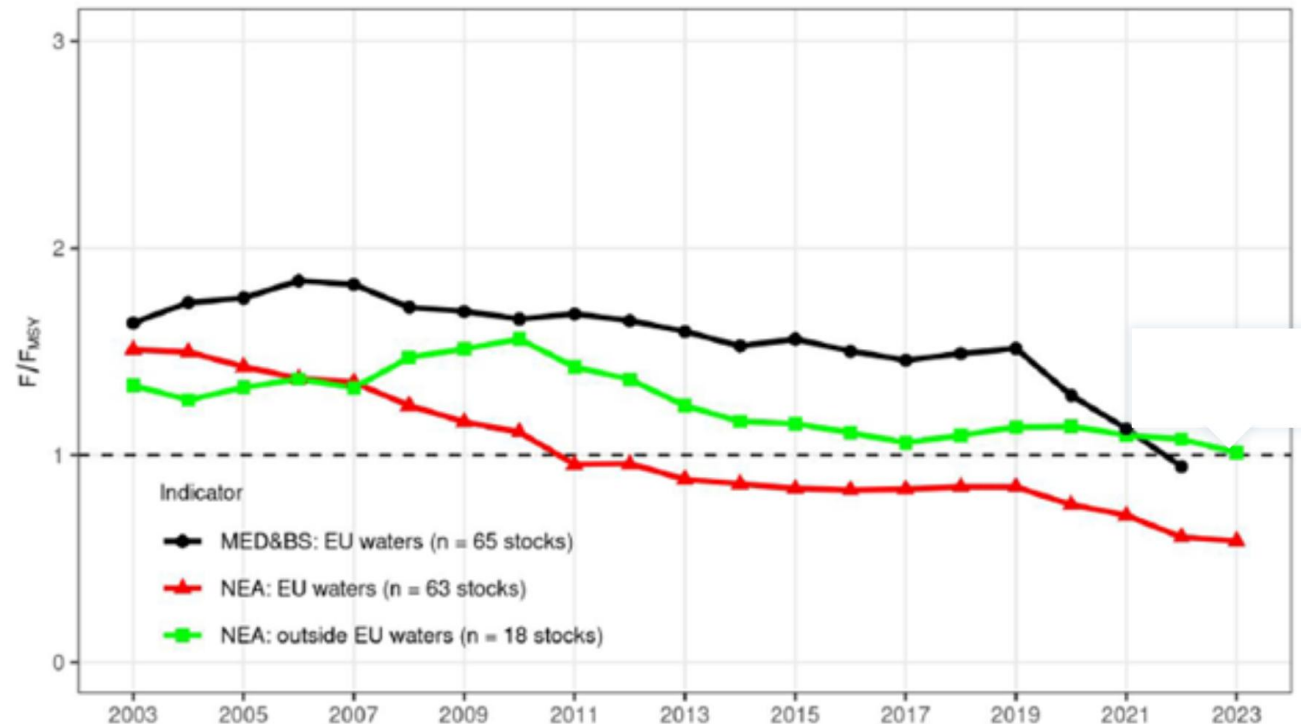
Claus R. Sparrevohn, Niels T. Hintzen, Steve Mackinson, Ed D. Farrell
and Martin Pastoors

What's on my heart

- Working as scientist within the industry:
 1. Data opportunities,
 2. Projects,
 3. Potential pitfalls.
- What happens after the research/advice/assessment:
 1. How are quotas distributed,
 2. What happens to the 22 mill. tons of small pelagic caught globally.

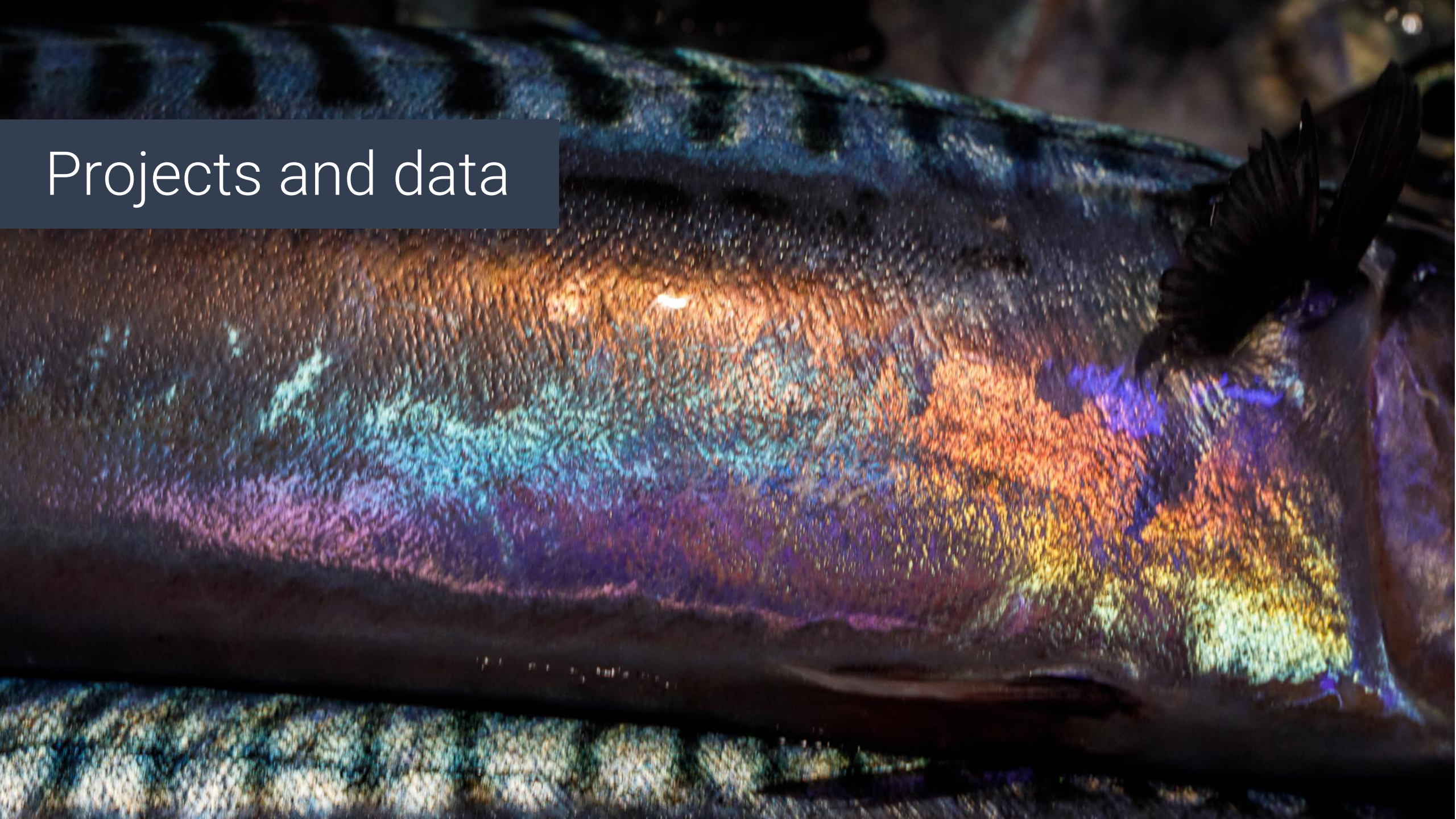


Why industry got involved in science and advice

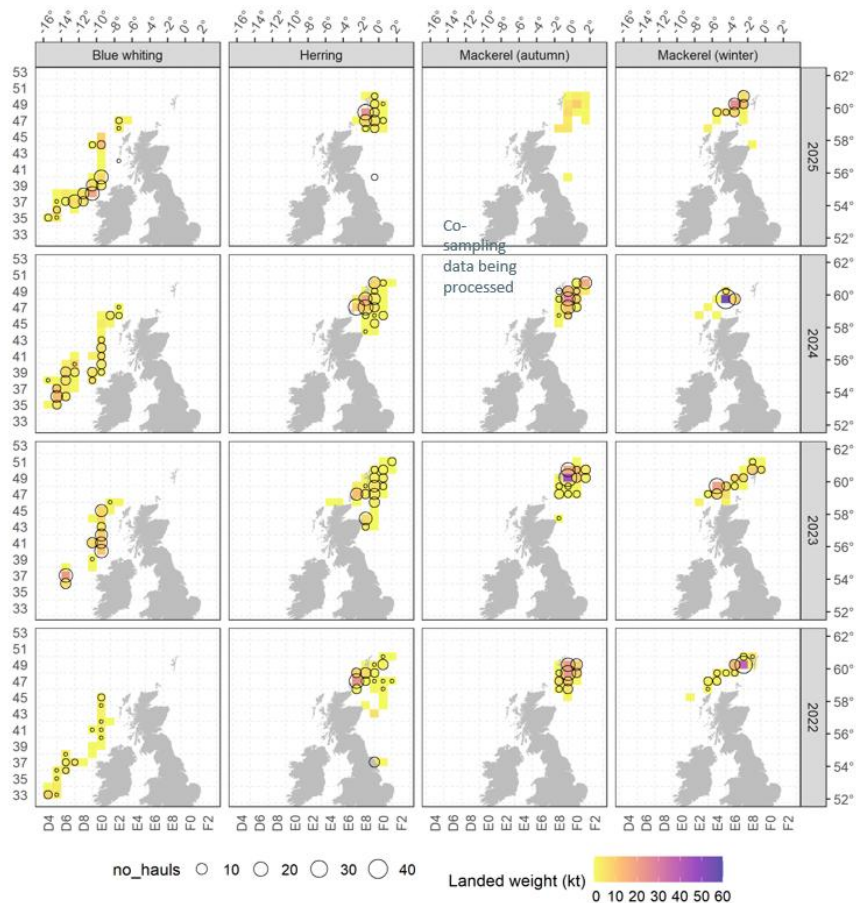


Source: Orientations for the upcoming Commission proposals for fishing opportunities for 2026. DG Mare, 2025.

Projects and data



Data opportunities



The Fatter the Better?
 Revealing the ecological value of industry data on mackerel and herring fat content



Susan Kenyon, Cefas (PhD research)

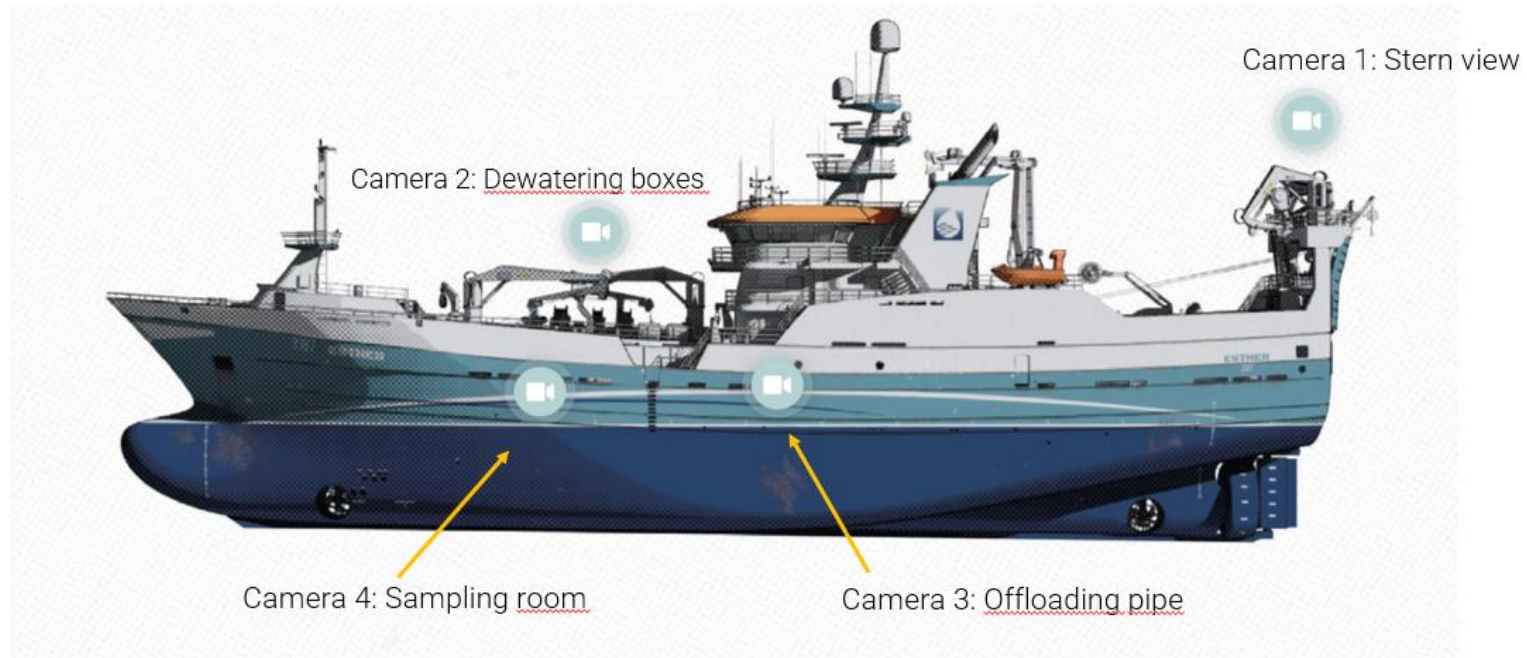
UNIVERSITY OF
ABERDEEN

SPFA
 SCOTTISH PELAGIC
 FISHERMEN'S ASSOCIATION

PFA
 PELAGIC FREEZER-
 TRAWLER ASSOCIATION

Dr Tara Marshall
 Dr Steven Mackinson
 Martin Pastoors

CCTV in Danish fishery

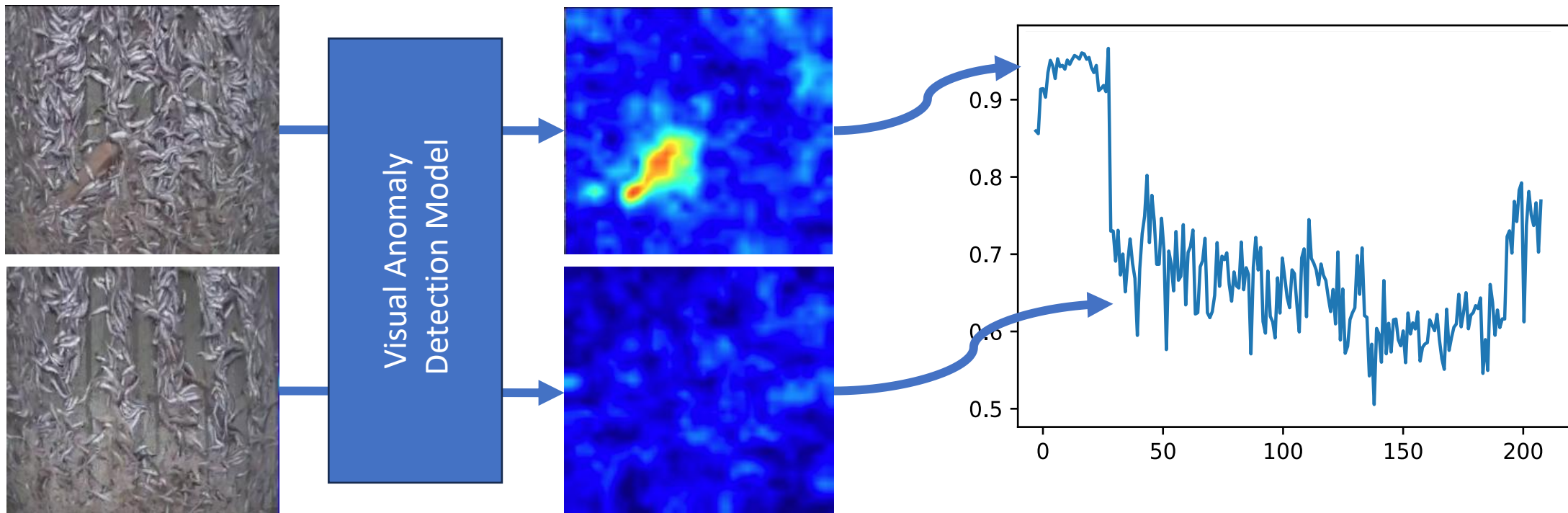


CCTV in Danish fishery



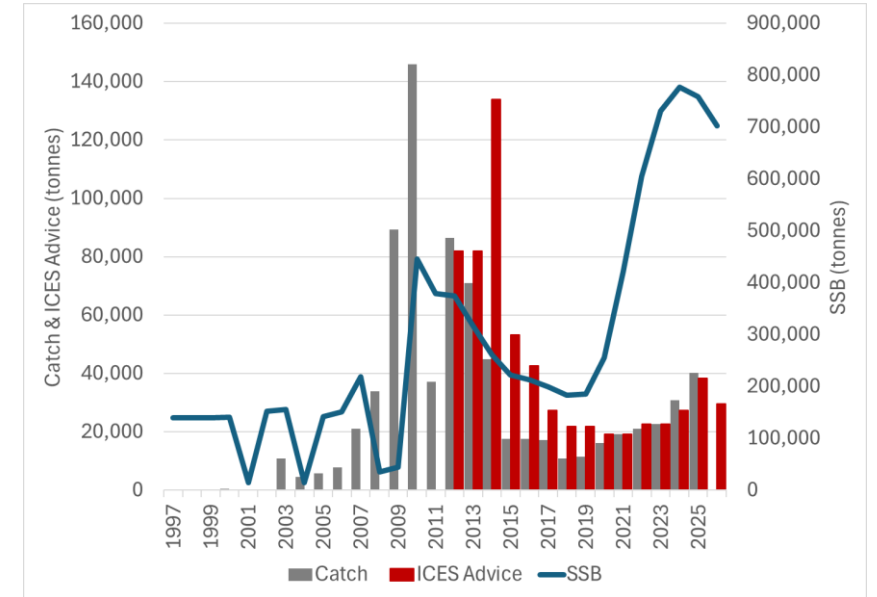
Bycatch - Anomaly detection

- 1) Train on normal data = images without bycatch
- 2) After training: strong response to data outside the normal = bycatch
- 3) Identify bycatch images using anomaly score



Developing new fishery

- New fishery developed
- No scientific basis for assessing the stock status
- Industry-institute collaboration initiated
- Industry funded biological studies & acoustic survey
- Precautionary ICES Advice developed
- Industry led genetic stock identification
- Continued industry data collection
- Stock recovery and expansion
- Development of category 1 assessment and advice
- Management Strategy Evaluation



Improving selectivity



Potential pitfalls

4 GUIDELINES FOR Industry affiliated scientists PARTICIPATING IN ICES GROUPS

4.1 Industry affiliated scientists will work in **the best interest of the science** and advice produced during the meeting; they will not act as a representative of a particular sector or interest groups.

4.2 Where possible the industry affiliated scientists will bring additional relevant information from the fisheries for consideration within the expert group.

4.3 The industry affiliated scientists will assist in producing science-based advice in a **consensus mode** and actively participate in discussions on all topics where appropriate.

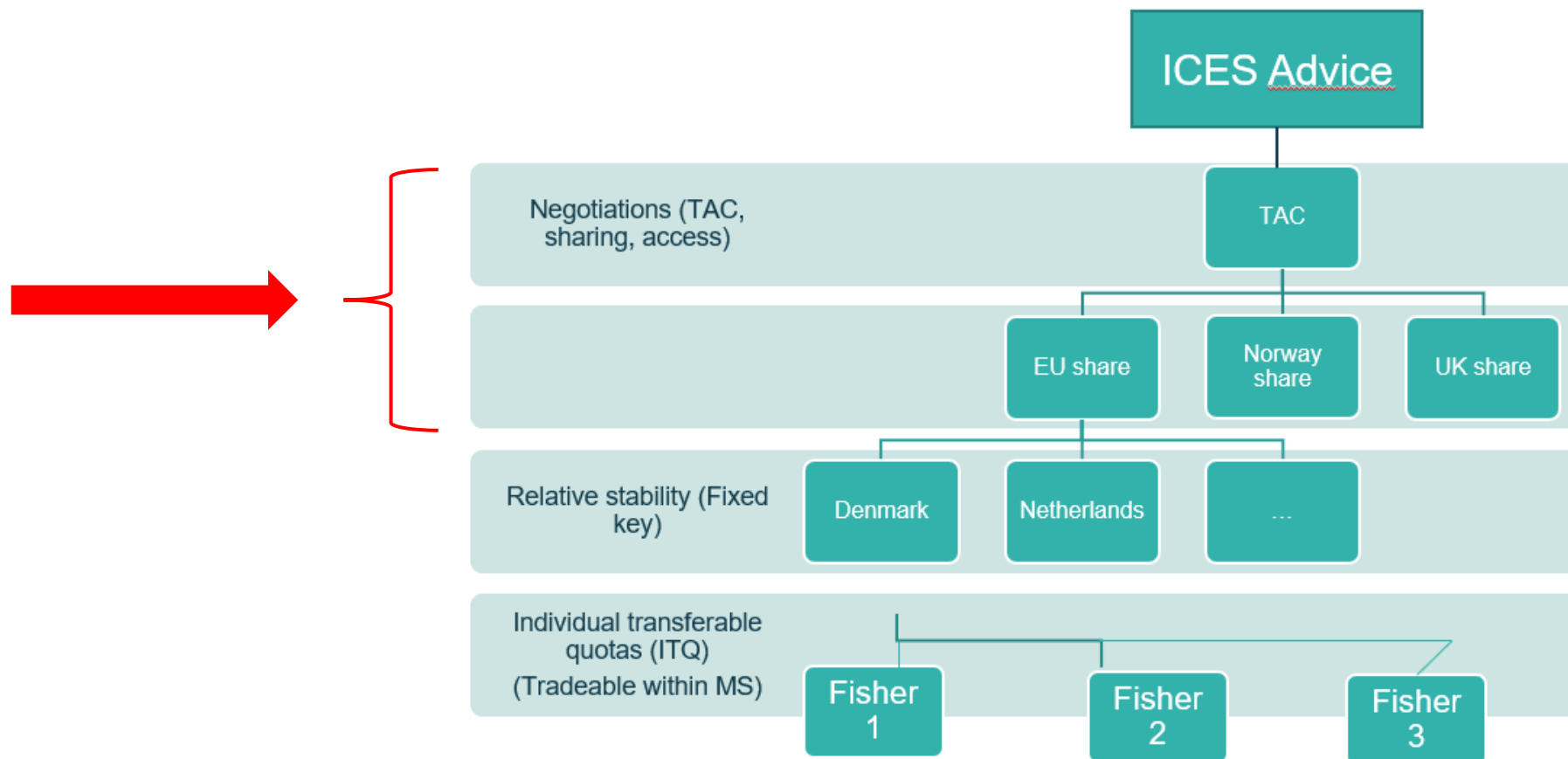
4.4 It is the responsibility of the industry affiliated scientists to allow other ICES group participant awareness of the affiliation of the industry affiliated scientists.

4.5 When communicating deliberations and background for decisions made by the group, Industry affiliated scientists will follow the Chatham House Rules: *“At a meeting held under the **Chatham House Rule**, anyone who comes to the meeting is free to use information from the discussion but is not allowed to reveal who made any comment.”*

What happens after the advice is provided

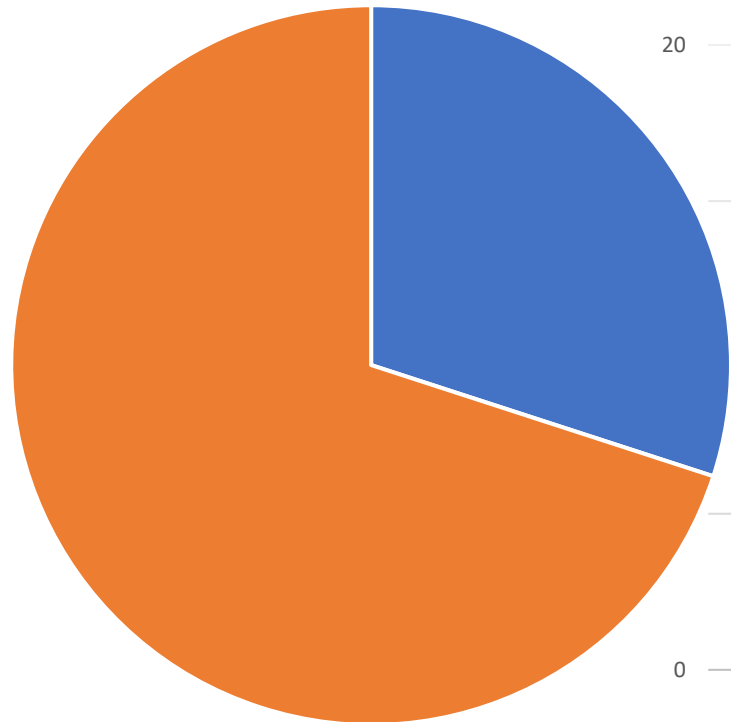


How are quotas distributed

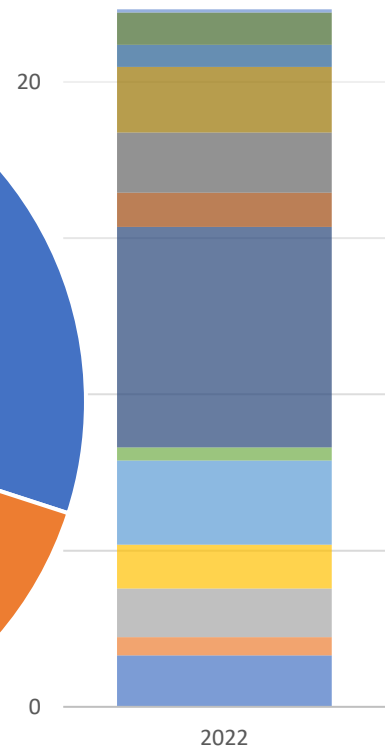


Total catches

25



■ Human consumption ■ Fish oil and meal



■ Atlantic herring
■ European sprat
■ Capelin

GLOBAL CATCHES OF SMALL PELAGICS

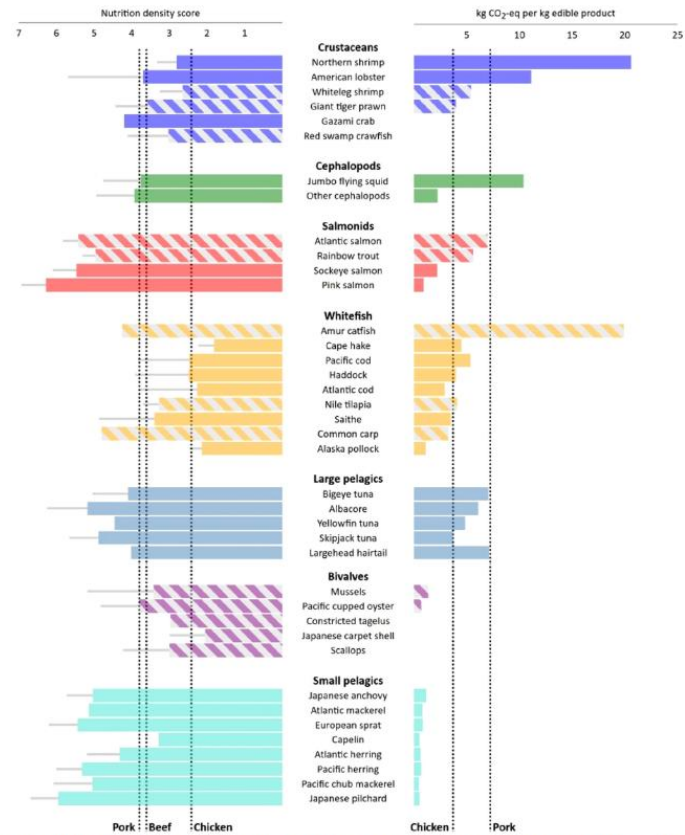
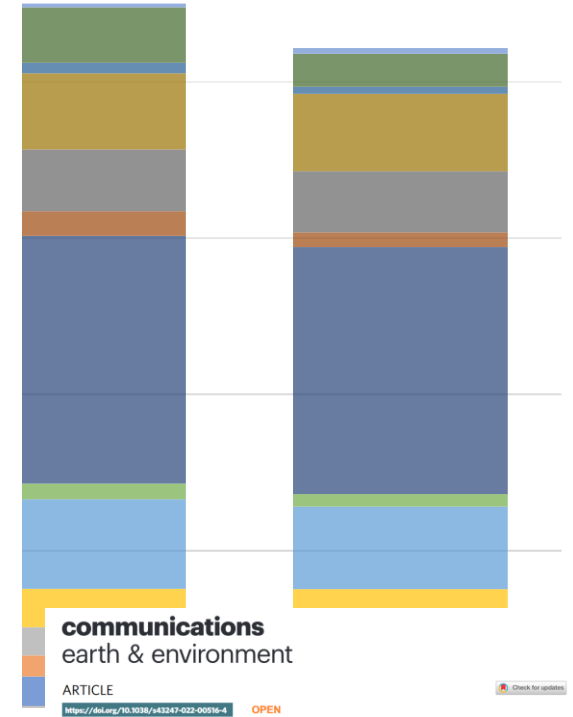


Fig. 2 Nutrient density and greenhouse gas emissions of globally important seafoods. Nutrient density scores are based on the 21 nutrients common to all species (full bars) and, where possible, 23 nutrients (grey lines) (for nutrients see Methods). GHG emissions of individual seafood species are representative of the dominant production method for each (or weighted if multiple major production method is employed globally). Solid bars indicate species from fisheries, and striped bars species from aquaculture. Comparisons to land-based animal proteins are based on nutritional content of averaged meat cuts for beef and pork, and fillets for chicken. GHG emissions of beef are beyond the scale at 56 kg CO₂e per kg edible product.

■ Anchovy ■ Atlantic mackerel ■ Chub mackerel ■ Jack and horse mackerel
■ Blue whiting ■ Pacific saury



communications
earth & environment

ARTICLE

<https://doi.org/10.1038/s43247-022-00916-4>

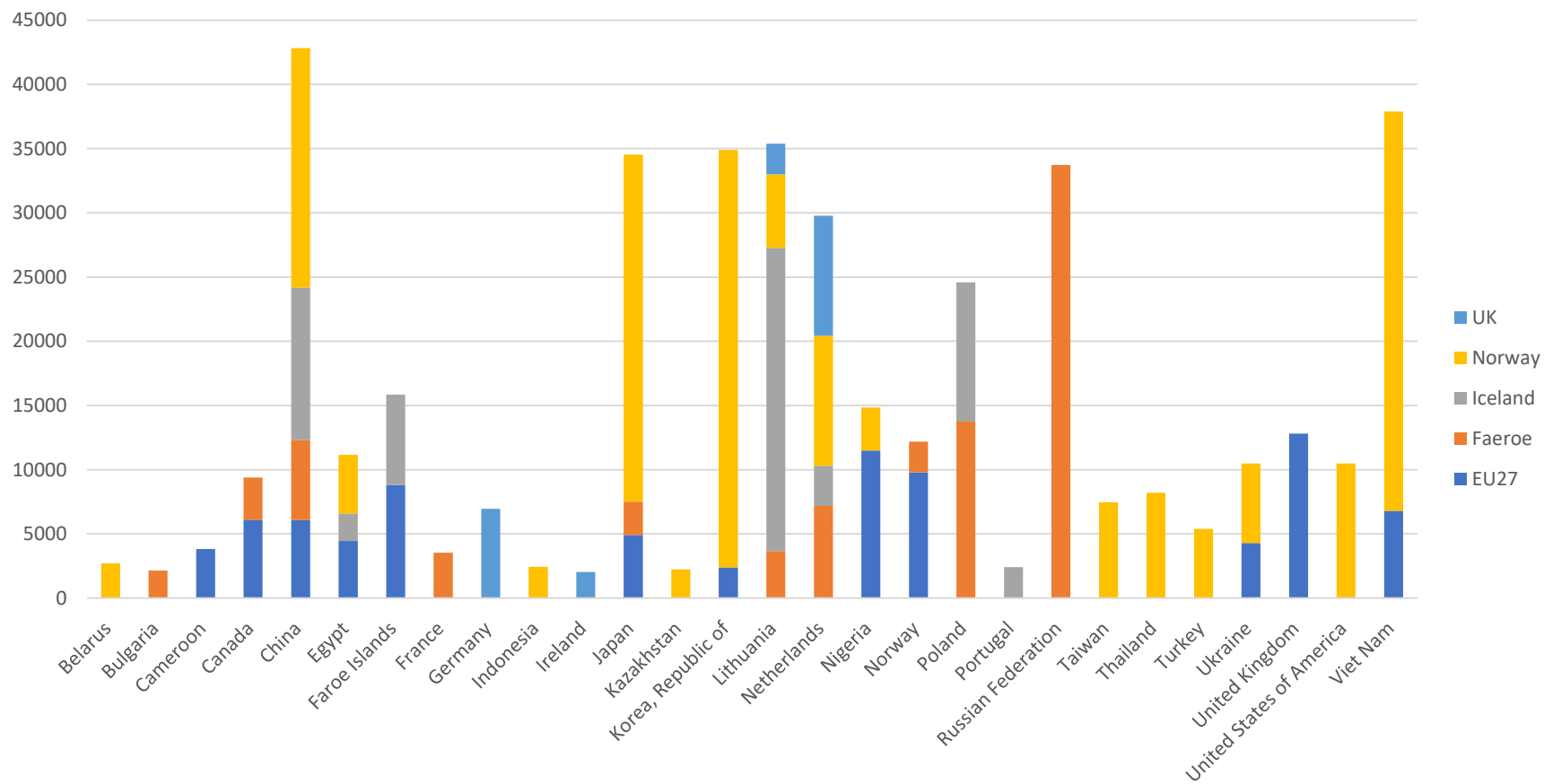
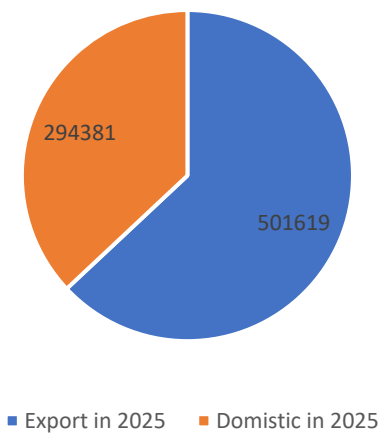
OPEN

Assessing seafood nutritional diversity together with climate impacts informs more comprehensive dietary advice

Marta Bianchi¹, Elinor Hallström¹, Robert W. R. Parker^{2,3}, Kathleen Milfin², Peter Tyedmers² & Friederike Ziegler^{1,4}

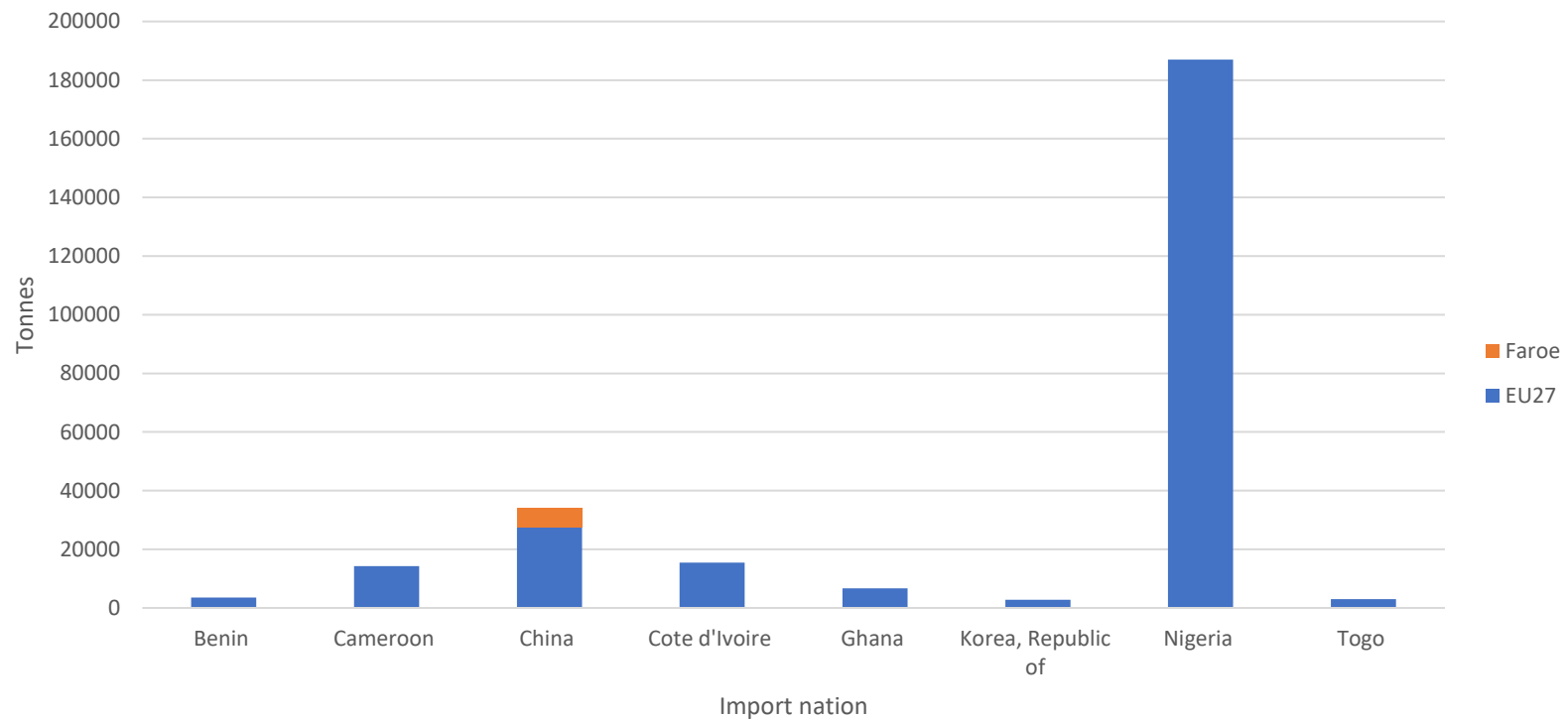
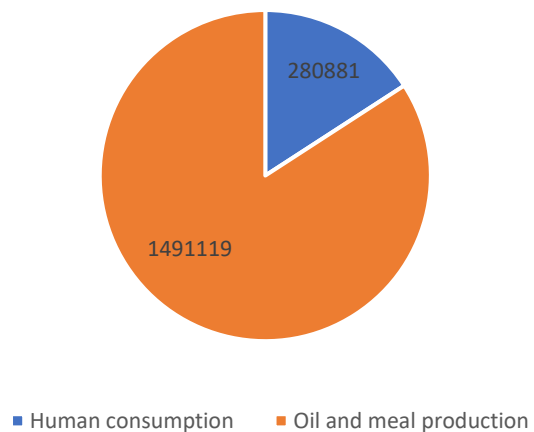
Mackerel market

Total catch in 2025: 796 000 tonnes



Blue whiting market

Product in 2025



Future



Education



DPPO
Pelagic Academy



PHD DEFENCE

Paco Rodriguez-Tress

Optimizing important pelagic fish resources
by using data from commercial vessels and acoustics

Wednesday, 21 May 2025, 12:00
online and at DTU Lyngby Campus, building 208, aud. 53

Examiners

Professor Martin Lindgreen, DTU Aqua (chair)
Researcher Nils Olav Handegard, Institute of Marine Research, Norway
Chief Scientific Officer Steven Mackinson, Scottish Pelagic Fishermen's Association, UK

Chairperson at defence

Professor Brian MacKenzie, DTU Aqua

Supervisors

Principal Supervisor: Senior Researcher Stefan Neuenfeldt, DTU Aqua
Co-supervisor: Scientific Advisor Claus Reedtz Sparrevoth,
Danish Pelagic Producers Organisation

A copy of the thesis is available for reading at DTU Aqua.
Please contact Susan Zumbach Johannessen, szjo@aqu.dtu.dk

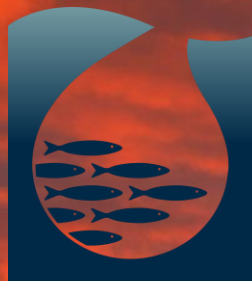
The Fatter the Better?
Revealing the ecological value of
industry data on mackerel and herring
fat content



Susan Kenyon, Cefas (PhD research)

UNIVERSITY OF ABERDEEN
SPFA SCOTTISH PELAGIC FISHERMEN'S ASSOCIATION
PFA PELAGIC FREEZER-TRAWLER ASSOCIATION

Dr Tara Marshall
Dr Steven Mackinson
Martin Pastoors

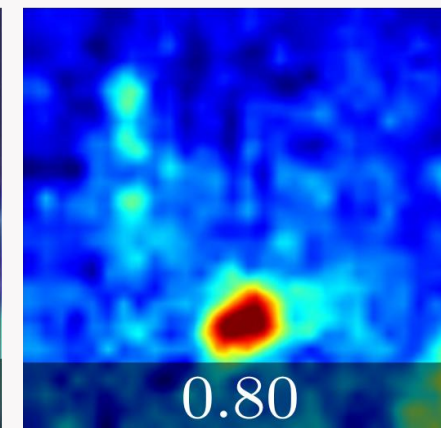
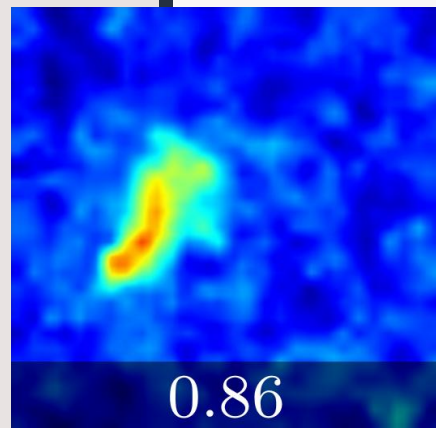
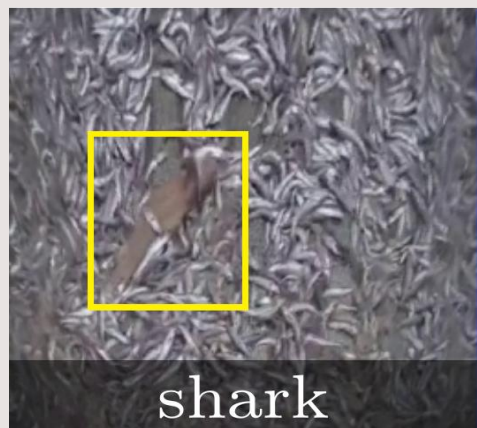
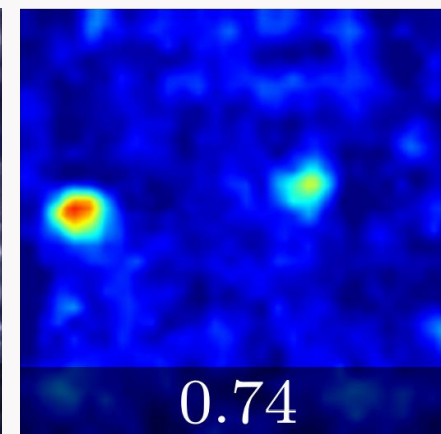
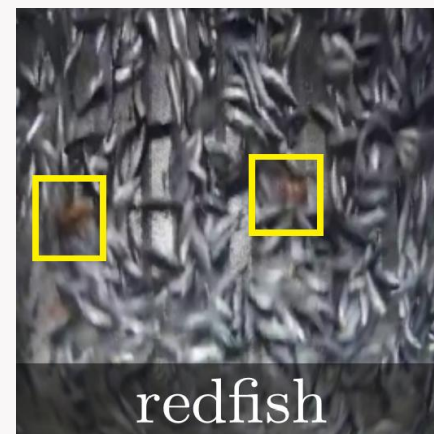
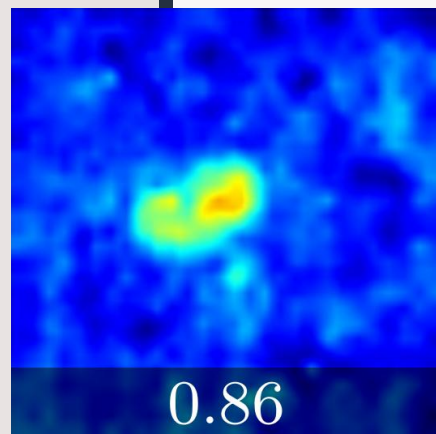
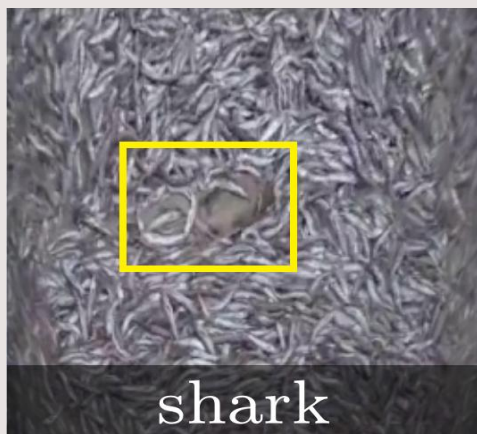


DPPPO

Danish Pelagic
Producers organisation



Bycatch - Anomaly detection



Fishing nations in the NE Atlantic



Potential pitfalls

- Selective involvement,
- Restriction/bias on potentially relevant data (personal log-book).

- Keep back data (as part of research or monitoring program),
- Manipulate results.

