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The role of fish biology in fisheries ecology? A joint vision of academia and industry

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SJÁVARÚTVEGS
RÁÐSTEFNAN

ISI ICELAND
SEAFOOD



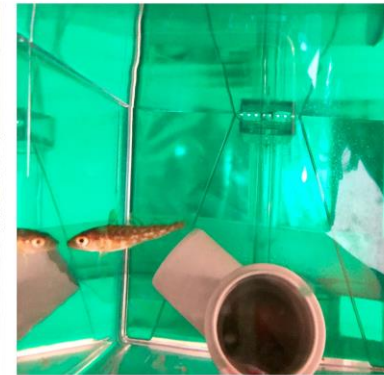
HAMPIÐJAN

Hrífa Ólafsdóttir

University of Iceland, Research center of the Westfjords



UNIVERSITY OF ICELAND

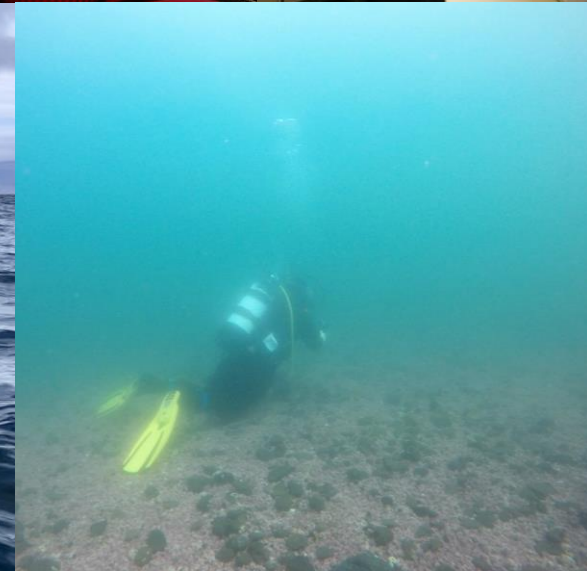


Fish ecology in fisheries ecology

- In comparison to other fisheries nations, Iceland is not competitive in terms of funding for fundamental - curiosity based - studies on marine fish ecology, or the training of young researchers in the field.
- However, fundamental research on the biology of harvested fish species, for example, ecology, life history and evolutionary ecology, is the foundation needed to respond to predicted changes in the ocean environment, as well as to the increased utilization of marine resources.



Visual representation of my research



Mapping my interactions with the seafood industry?

discussions
fish
experimental
boat
cages
feed
free
access
sea
co-proposers
facilities
advise
proposers

+ dabbling with
underutilized species

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Why all the discussion?

Academic researchers and fishers may share a viewpoint for fundamental research and there is much potential for collaboration?



Formal vs. informal collaboration with industry?



- Environmental impacts but sometimes a direct application of primary research is difficult to identify.
- European flounder?
- But most of my research centres around maintaining fish populations..
 - For example identifying important habitats, maintaining genetic diversity, examining or minimising risk of anthropological or global change.
- The best research collaborations tend to be formed on an individual to individual basis. Forced collaboration rarely benefits anyone.



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What could more formal collaborations look like?

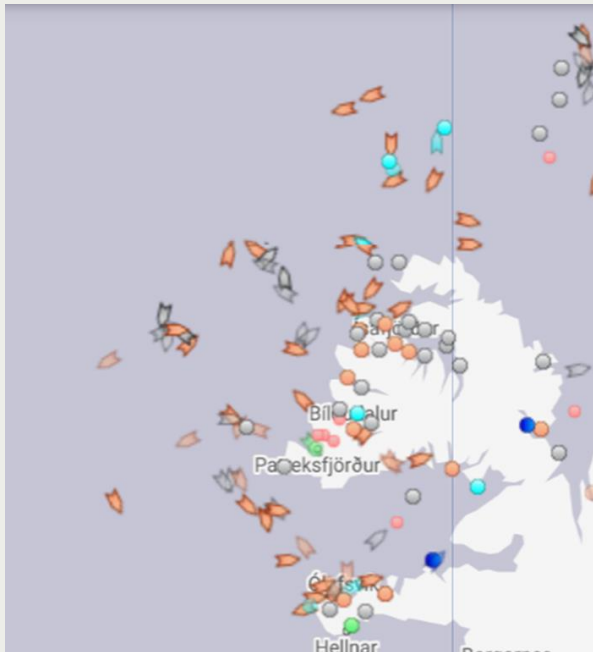
Two examples from my current research.



Sampling wild cod in the small boat fishery



- Data on time of fishing event and location coupled with a small tissue sample (and preferable size) can allow us to approach many research question.
- Are Atlantic cod of different genotypes (for example linked to migratory vs resident behavior) more likely to be caught at specific **sites**, **times**, in different **fishing gear**.
- Do Atlantic cod caught at different **sites**, **times**, in different **fishing gear** differ in prior ecological exploitation?
- Correlation of the two.



Aquaculture and fishing as “vessels of opportunity” for fish tracking

- Acoustic tracking of marine fish is both costly and risky. Equipment cost, deployment, equipment loss and maintenance.
- Collaboration with sea cage aquaculture and fisheries can lower cost of deployment, maintenance, allow larger areas of coverage and facilitate long term tracking projects that can benefit both parties.



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But what is the benefit to the industry?

