Magnus Johnson Sergey Rybchenko Simon Waldman

with support from

Mike Cohen (NFFO) Dale Rodmell (EEFPO) Hannah Fennell (OFA) Jamie Robertson (HFIG) Mike Roach (HFIG/NFFO) Sarah & Darren Ready (NUTFA) Mike Bell (HW)





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Gear	Devon	Orkney	Yorkshire
Angler	1	0	0
Diver	2	2	0
Dredger	2	0	0
Potter	2	8	10
Trawler	3	0	0
Total	10	10	10

4

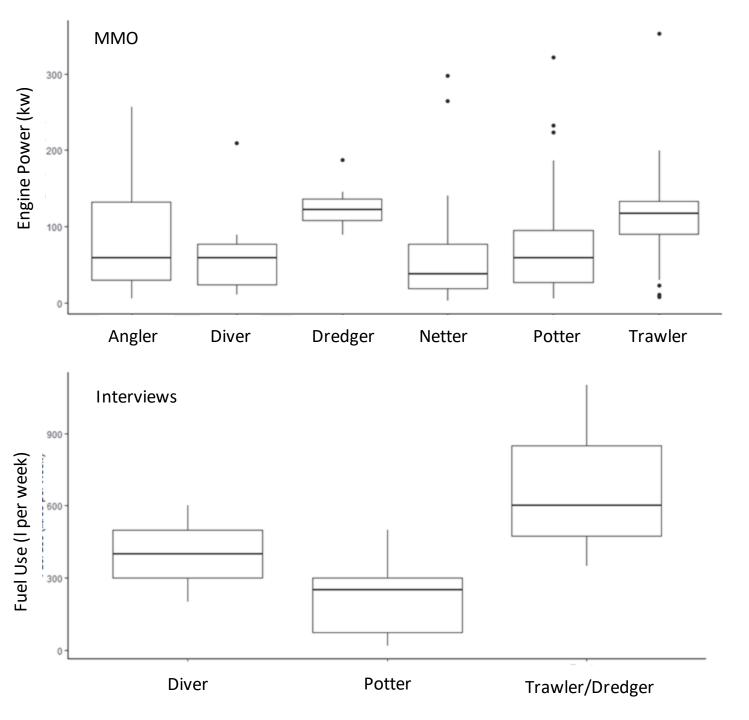
- • What do you fish for and how?
- • How powerful is your engine?
- • What is your weekly fuel use?
- • How far to your grounds?
- • How many hours a day do you fish?
- • Daily pattern of work and engine use?
- • How do you feel about electrification?
- • How much to install a new engine?

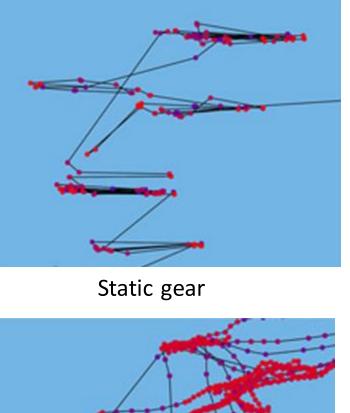


Orkney Fisheries Association

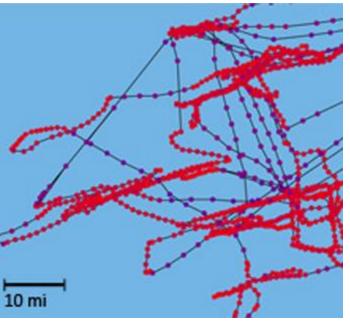








https://globalfishingwatch.org/



Trawler

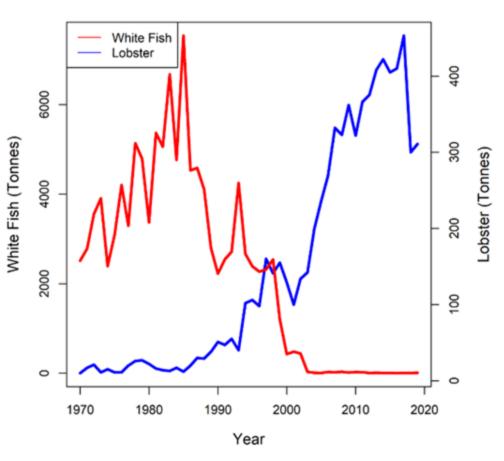


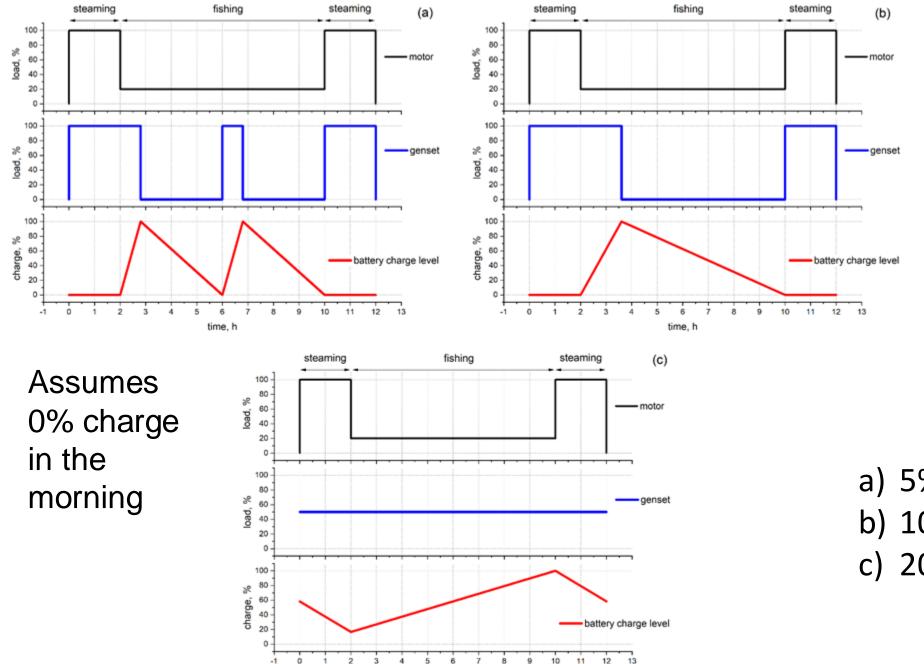
Figure provide by Dr Mike Roach, NFFO/HFIG





ukfisheries.net

Landings into Bridlington (1970-2020)



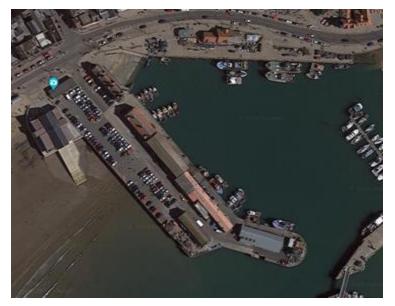
time, h

Electric motor Generator Battery charge level

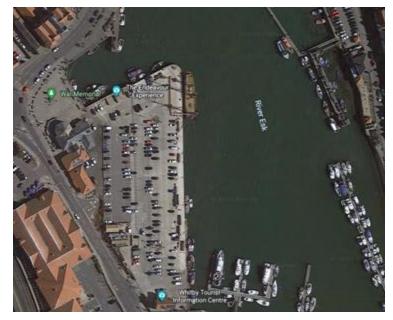
12 h day with 4 h steaming

a) 5% Battery capacity

- b) 10% Battery capacity
- c) 20% Battery capacity



Scarborough



https://kempower.com/inf ormationcenter/news/worlds-firstelectric-boat-hpc-chargerin-norway-is-designedmanufactured-bykempower/



Dart deputy in Brixham (Sarah Ready)

Whitby

Conclusions: It's all about efficiency

- Efficiency of propulsion system maximise power output for minimum input
- Efficiency of boat design small changes can result in significant savings
- Efficiency of infrastructure need access to locally relevant power.
- Efficiency of behaviour 25% improvements in efficiency just from monitoring.
- Efficiency of policy encourage decarbonisation. What opportunities are there?



Kirkwall, Orkney, Solar panels

Low Emission Workboats for the Aquaculture Sector

https://plugboats.com/1st-uk-electric-ferry-makessplash-in-plymouth/



Thank you for listening m.johnson@hull.ac.uk