



Project Trawlright:

An Innovative approach to reducing
discards

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Why is a Seafood Processor experimenting with Selective Fishing Gear?

- We have a responsibility and commitment to ensure sustainable fishing and waste reduction
- We have Serious Concerns about future supply in the advent of the Landings Obligation
- We have the desire to both enable and empower fishermen to meet the challenging new legislation

There was much talk on discards, but no action - It seemed like the obvious thing to do.



Our charter vessel and experimental platform the “Providence”



Characteristic Vessels in the Prawn fleet, twin rig, shelter deck around >15m



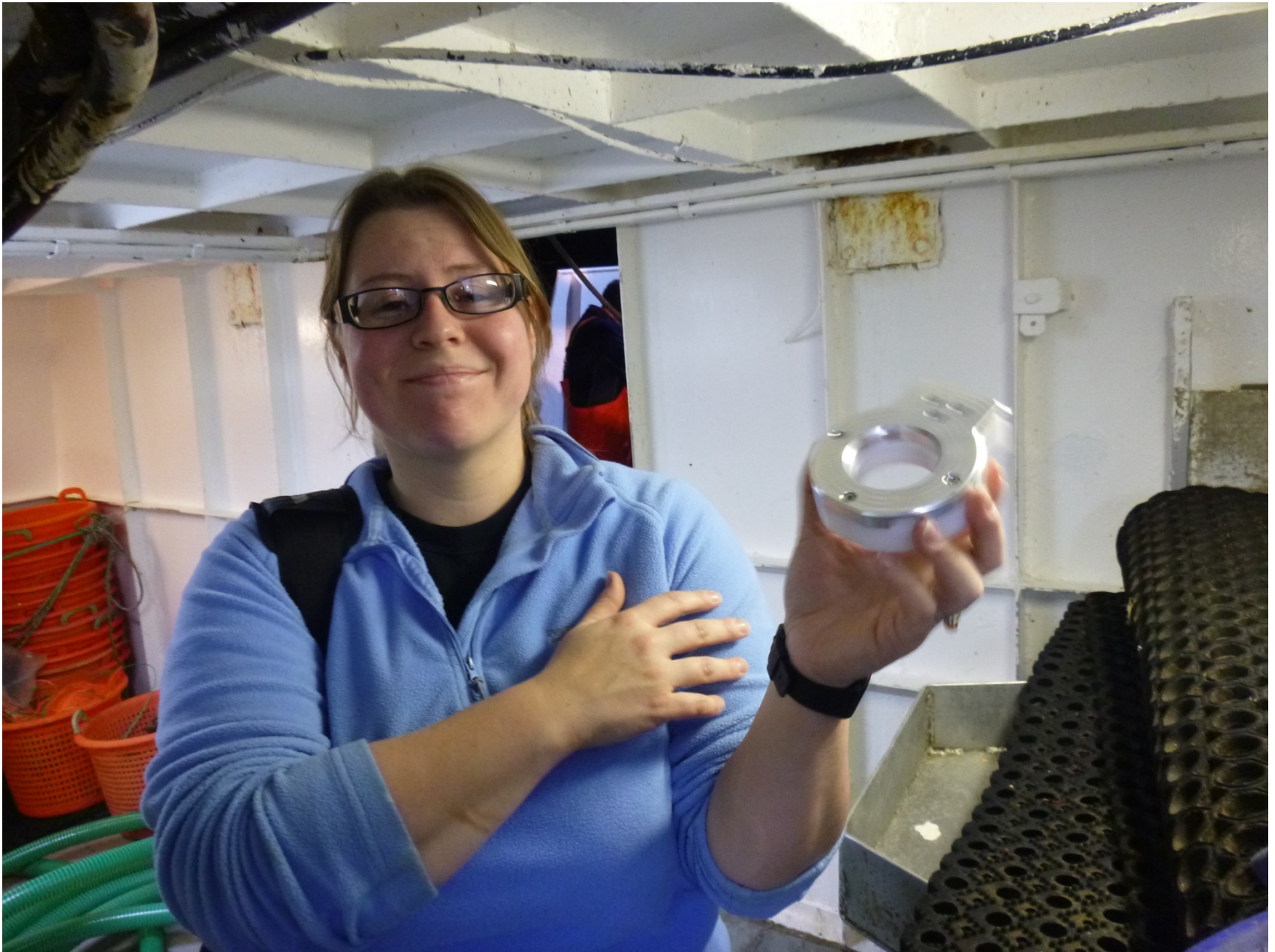
Characteristic Vessels in the Prawn fleet, twin rig, shelter deck around >15m



Wheelhouse on board the Providence



Kitchen Facilities (arguably the most important room aboard!)



Our independent Science Lead (Sam Elliot, CEFAS)



First Mate (and former Grimsby Fisher) Brian



The illusive and camera shy second mate Jock (Fishing news cartoon anyone?!)

Jim'n Alec



"I'm still not convinced that last year's Xmas tree lights are going to work as a fish inhibitor at 40 fathoms."

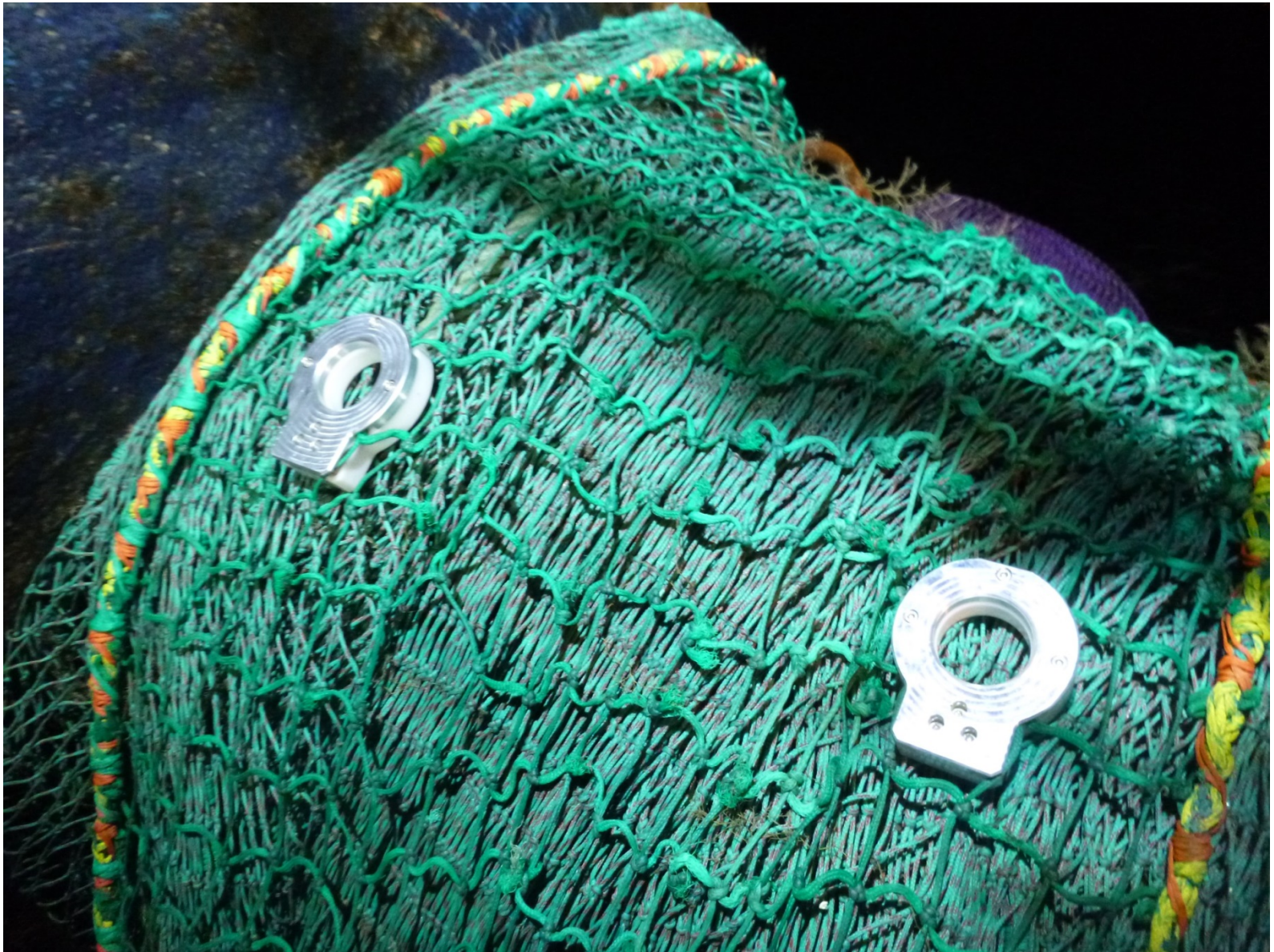
Speaking of the fishing news cartoon...



The Trawligh Gear, 90mm aperture Light rings (x6) – Bright LEDs bolted into the Square mesh panel on the starboard side trawl



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The Trawligh Gear, 90mm aperture Light rings (x6) – Bright LEDs bolted into the Square mesh panel on the starboard side trawl (Ring design now out)



The trawl being deployed (circa 5.30am, F10), careful inspection highlights the glowing patches in the net clearly visible for significant duration after net deployment owed to their brightness.



Net Hauling circa 10am (Note Skipper Nigel in his Yellow High Vis coat)



The Catch being released from the cod end of the net into the hopper on the open deck and then channelled through into the sorting table under the shelter deck



Macro shot of the mixed nature of the catch



The Star of the show and target species, the langoustine and scampi *Nephrops norvegicus*



Once the net with the light rings on was unloaded, the catch had to be rapidly decanted into boxes and baskets for separation to identify if there was an experimental effect before the second net could be emptied and the trawl re-deployed



Subsamples of both nets catches (experimental and standard) then had to be rapidly recorded by Sam Elliot, CEFAS (seen here) and Young's Marine Biologist David Parker to identify any effect from the trawlight gear



Subsamples of both nets catches (experimental and standard) then had to be rapidly recorded by Sam Elliot, CEFAS and Young's Marine Biologist David Parker(seen here) to identify any effect from the trawlight gear



- 53% reduction in the number of whiting at lengths below 15cm (MLS 27cm)
- 24% reduction in plaice catches between 24-25cm lengths (MLS 27cm)
- 41% reduction in dab between lengths of 15-18cm (No MLS)



Other findings included that both Monkfish and whiting have a keen appetite for nephrops!



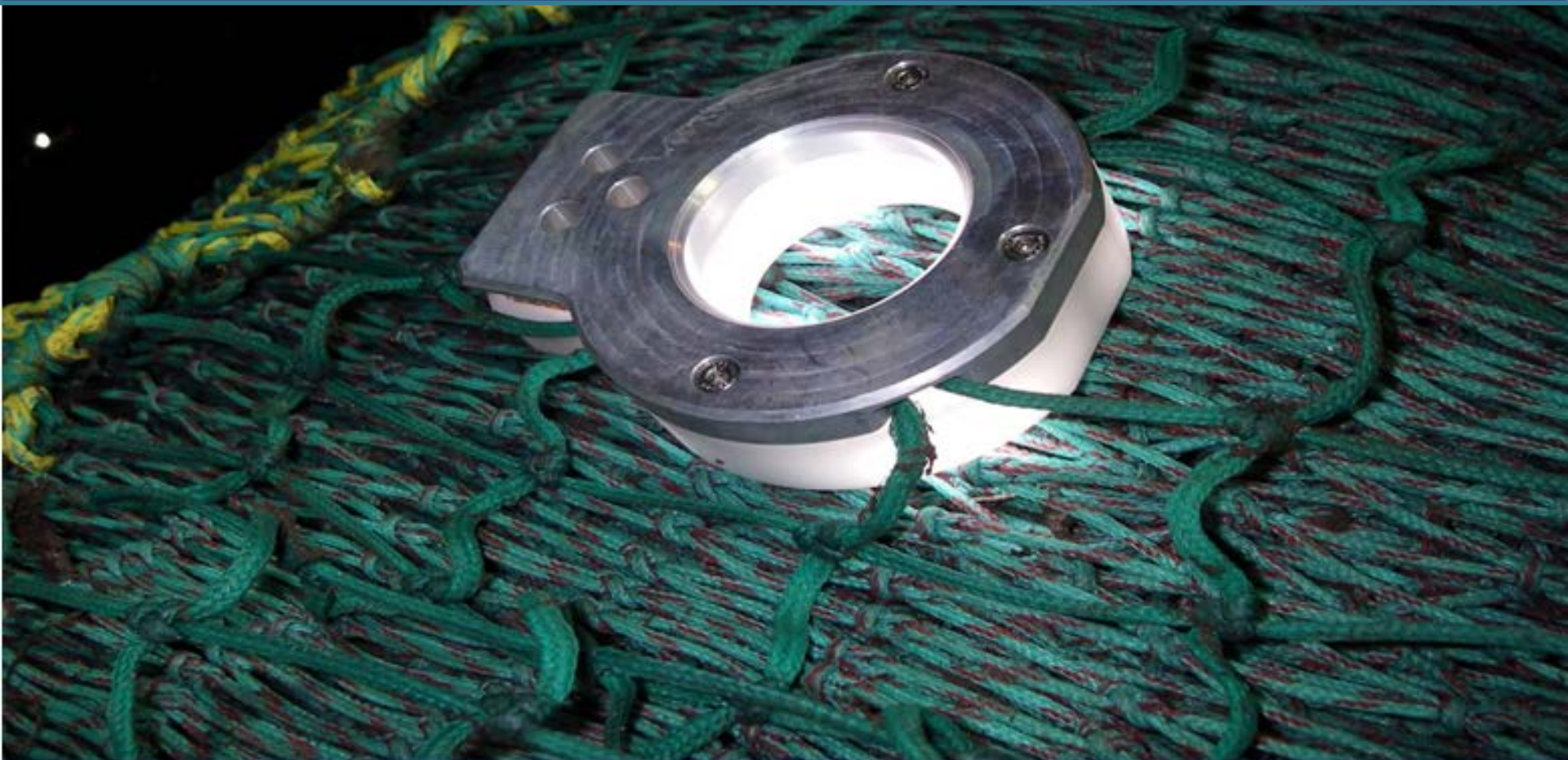
Other findings suggest that both Monkfish and whiting have a keen appetite for nephrops!



The providence leaving the landing dock after a hard day's fishing (9pm)



The Science..



Centre for Environment
Fisheries & Aquaculture
Science

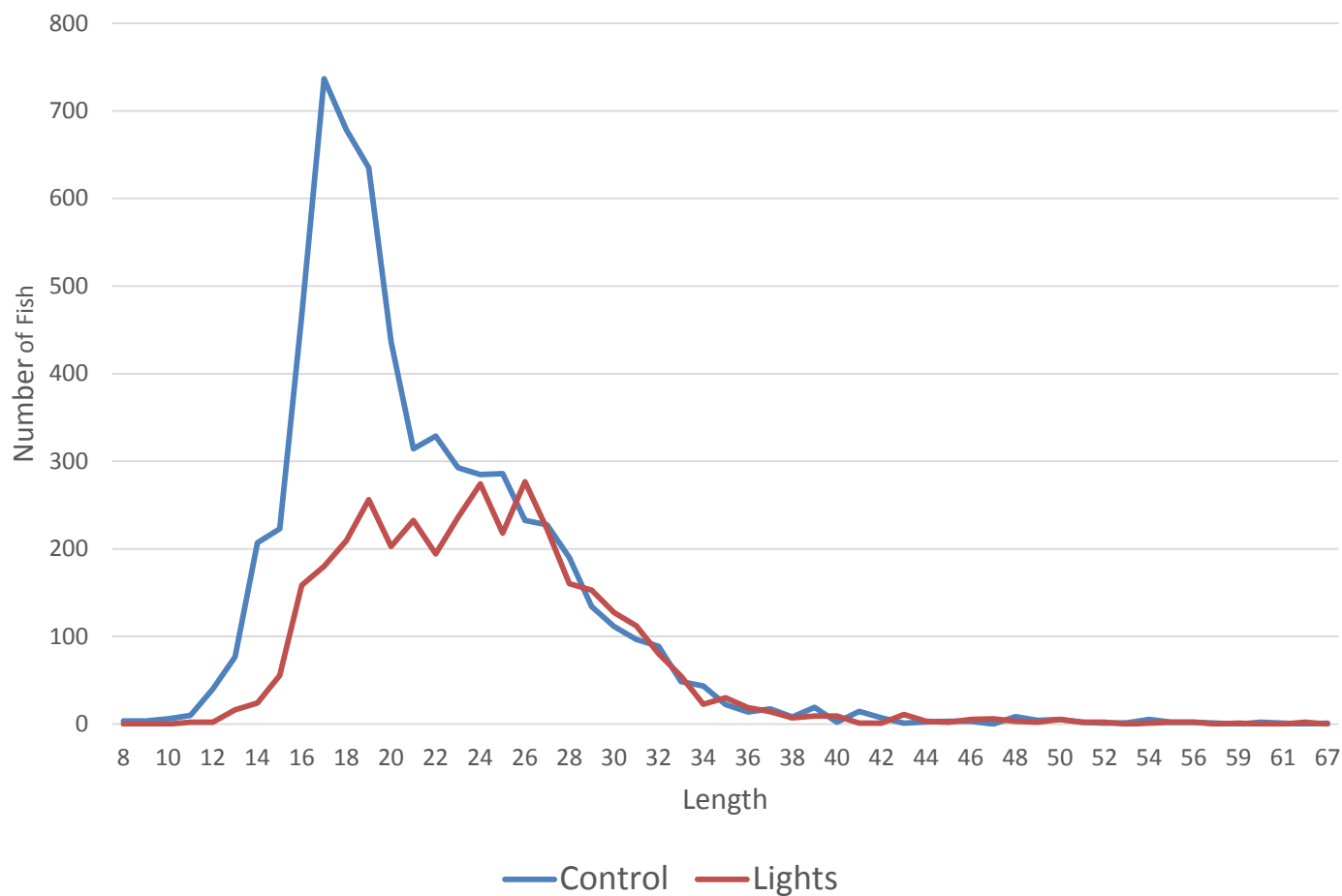


Cefas

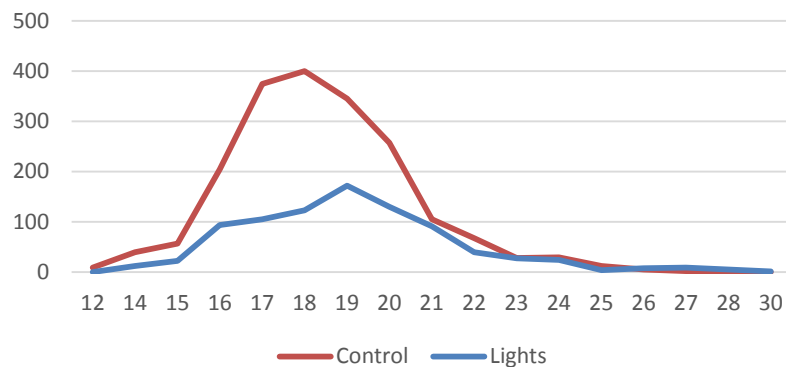
- FV Providence (North Shields)
 - Twin Rig Nephrops Trawler
- Trials carried out in October 2015, November 2015 and February 2016
- Standard Cefas Sampling Protocol
 - Control Rig and Experimental Rig
 - Port and Starboard catches separated
- Camera



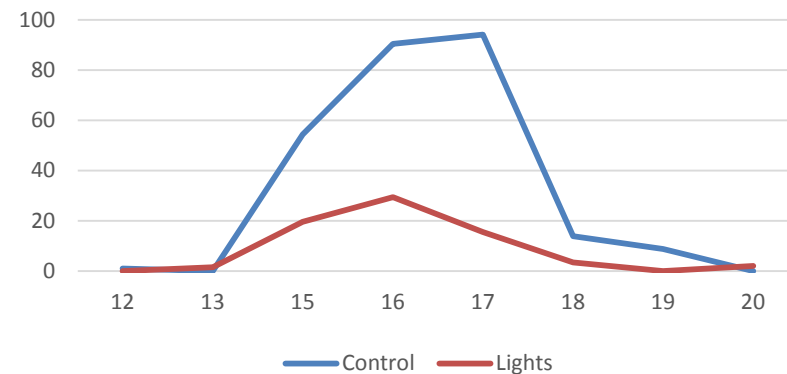
Total Number of Fish per Length for All Species Caught



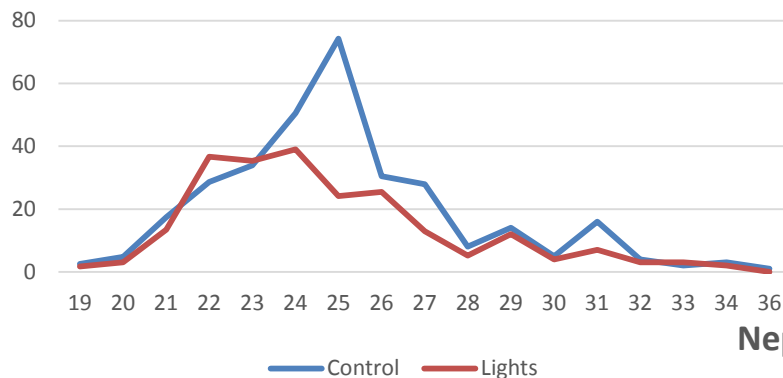
Dab



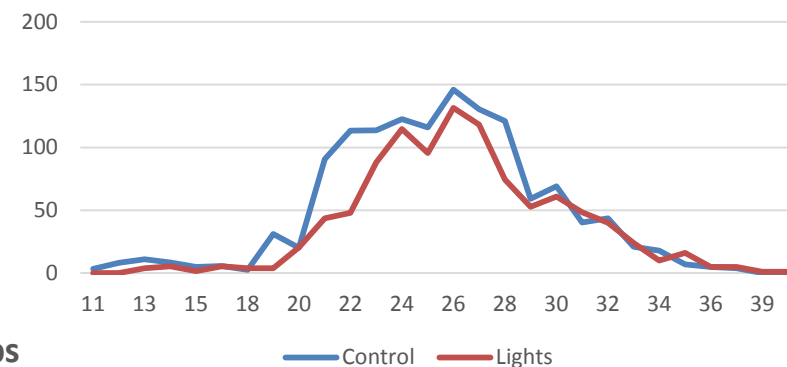
Norway Pout



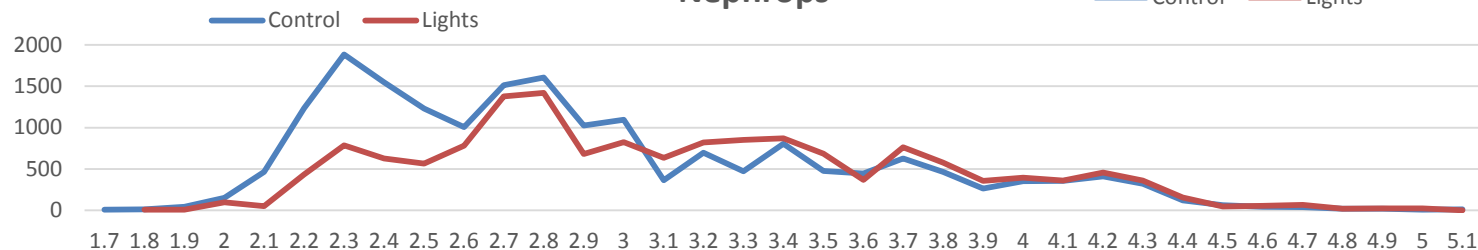
Plaice



Whiting



Nephrops



Key conclusions:

- Fewer fish caught in the Experimental Trawl
- Fewer small fish caught in the Experimental Trawl

Limitations

- Didn't Get a chance to swap the Experimental and Control Rigs
- Differences in Ground gear?
- Limited number of hauls
- Video footage failure
- More Data Needed – Future Work....



