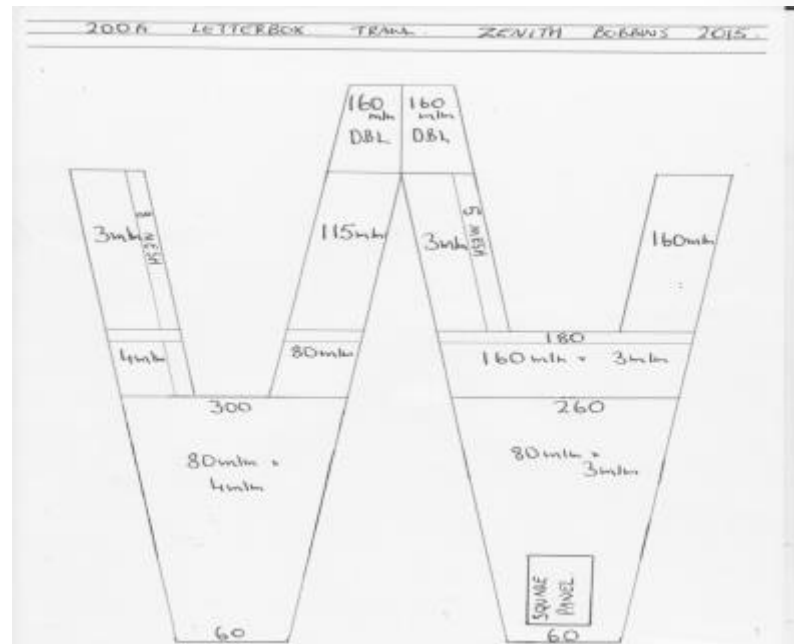


GITAG

Gear Innovation Technology Advisory Group



- GITAG is an industry based body established in August 2015 to foster flexible working partnerships between active fishers, industry and public bodies, gear technologists and science; aimed at scoping and contracting projects, trialing innovations to existing gear categories, piloting new gear configurations and types with associated data collection and appropriate scientific analysis.

Funding & Partners

- 100% funded project
- EMFF funding to Dec 2019
- Award of £1.08m

- Partnership with:
 - Scottish Fishermen's Federation
 - Seafish
 - Marine Scotland Science
 - Marine Scotland Policy
 - Scottish Association of Fish Producer Associations

Working with Industry

- Management Group – key partners
- Advisory Group:
 - Whitefish Sector
 - Nephrop Sector
 - North Sea
 - West Coast
- Advisory Group key to providing both advice and expertise to the project as well as disseminating outputs back to industry.

Funds

- Funding available to implement:
 - 9 development charters
 - 14 Nephrop Charters
 - 10 Whitefish Charters
- Gear fully funded
- 7 day fully observed charter following skipper development
- Charter Report then feedback to skipper, industry and Marine Scotland

Phase 1 Outputs

- 4 Projects
 - Amity – Twin Cod end with separator panel
 - Zenith – Letterbox with modifications
 - Atlas – Letterbox with modifications
 - Aurelia - Single net with 500mm panel (development Trial)
- Reports for Phase 1 will be available on Marine Scotland site, SFF site with information sheets available for each trial.

The Amity – Nephrop Trawler



Amity Trial

- Proposal:- Jimmy Buchan, FV Amity (PD177)
- Plan of inclined panel, separator panel, and double cod-end
- Separation of fish from prawns and the subsequent retention of prawns
- Inclined panel of 200mm
- Separator panel of 80mm
- To prove it is practically possible to separate prawns from fish
- Once separation is confirmed, consideration could be given to retention of non-target species.

Results Summary

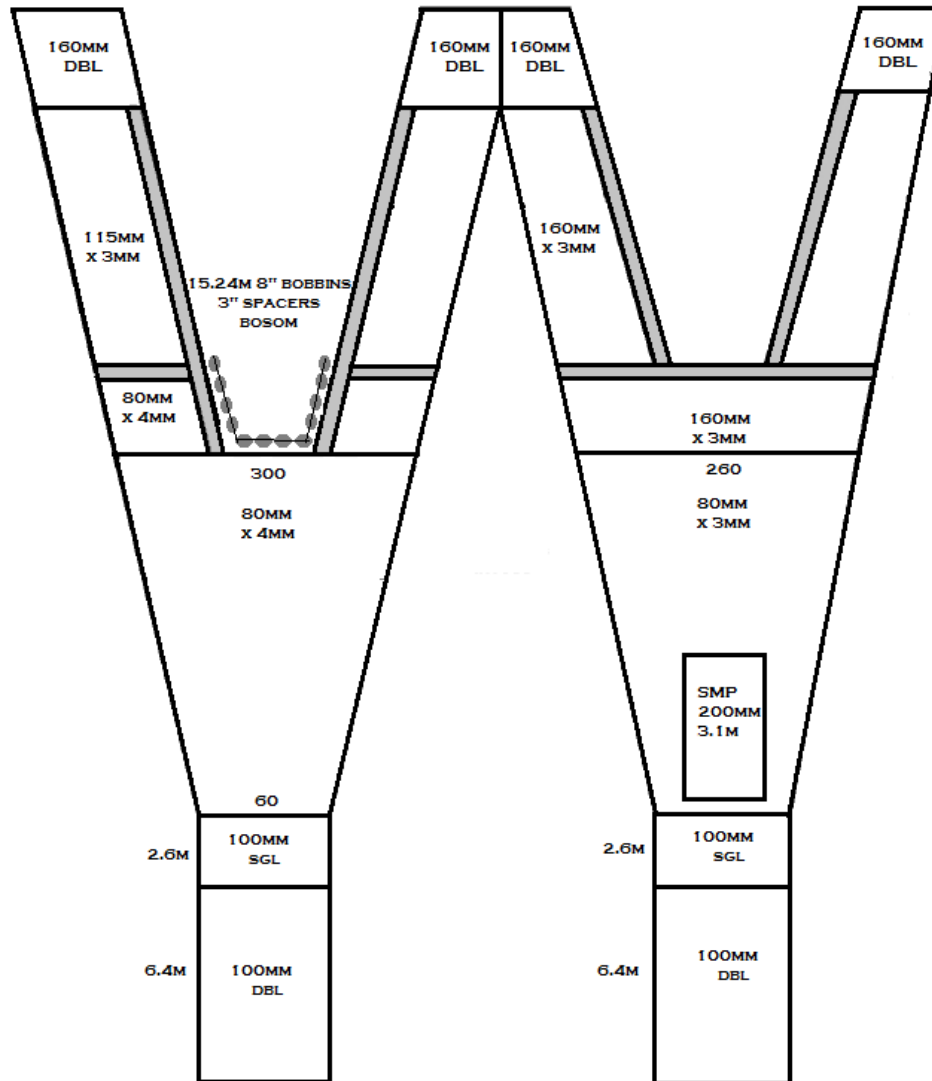
To date, it has clearly been demonstrated that:

- a very high percentage of fish (by-catch) can be separated from the target species of *nephrops*.
- There was no (discernible) loss of target species, nephrops.
- Quality of target species, nephrops is recognisably better using the trial gear.
- Quality of fish (by-catch) is recognisably better using the trial gear.

By continuing the development of the gear under commercial conditions, there is an expectation that:

- an optimum arrangement will be identified for separation of fish (by-catch) from target species of nephrops.
- final work could assess the additional value of increase in quality of both target species and by-catch.
- this could then lead to further work which could assess selectivity options for fish by-catch in the upper cod-end.
- fishermen and legislators should be confident that unwanted catches could be reduced considerably.

The Zenith



The Zenith

- assess whether the unwanted by-catch of round and flatfish could be reduced in the *Nephrops* trawl fishery using a modified *Nephrops* trawl incorporating 200mm bobbins and a 200mm square mesh panel
- Catches of *Nephrops* and monkfish remained consistent with that of a standard commercial *Nephrops* trawl.
- There were significant reductions in relative catch rates of cod and larger haddock (>25cm) and whiting (>28cm). There was no significant difference between the two trawls for haddock below 24cm and for whiting below 27cm.
- There was a significant reduction in the quantities of smaller common dab (<19cm) and long rough dab (<21cm) that were caught when using the modified trawl. However, significantly more larger plaice above 30cm were retained by the modified trawl.

The Aurelia



Aurelia

- **The initial trial was undertaken to test:**
- A 240' coverless prawn scraper trawl which suits both single and twin trawl.
- Headline is roughly in line the foot rope (no more than 3' from foot rope).
- -codend 100mm
- -smp 90mm (english reg vessel rules)
- -sweep/spreader length 68.5fm
- -average trawl door spread 37.5fm
- -spread at mouth of net 83ft (end to end)
- -300mm panel behind headline panels (2.4m x 3m)

Aurelia inserting 300mm panel



Aurelia inserting 500mm panel



Results

- This project was essentially a development trial
- The project and development of the net evolved considerably from original concept and design. Further testing and development could be required to maximise the benefit of the now 500mm panel.
- The skipper noted that he saw a reduction in fuel costs as a result of the net design.
- Working suggestions such as ; further lowering headline height by adjustment- reduction of headline floats- increase in smp panel size- addition of small floats to 500mm panel, could all further develop this net and aid roundfish catch reductions.
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The Atlas

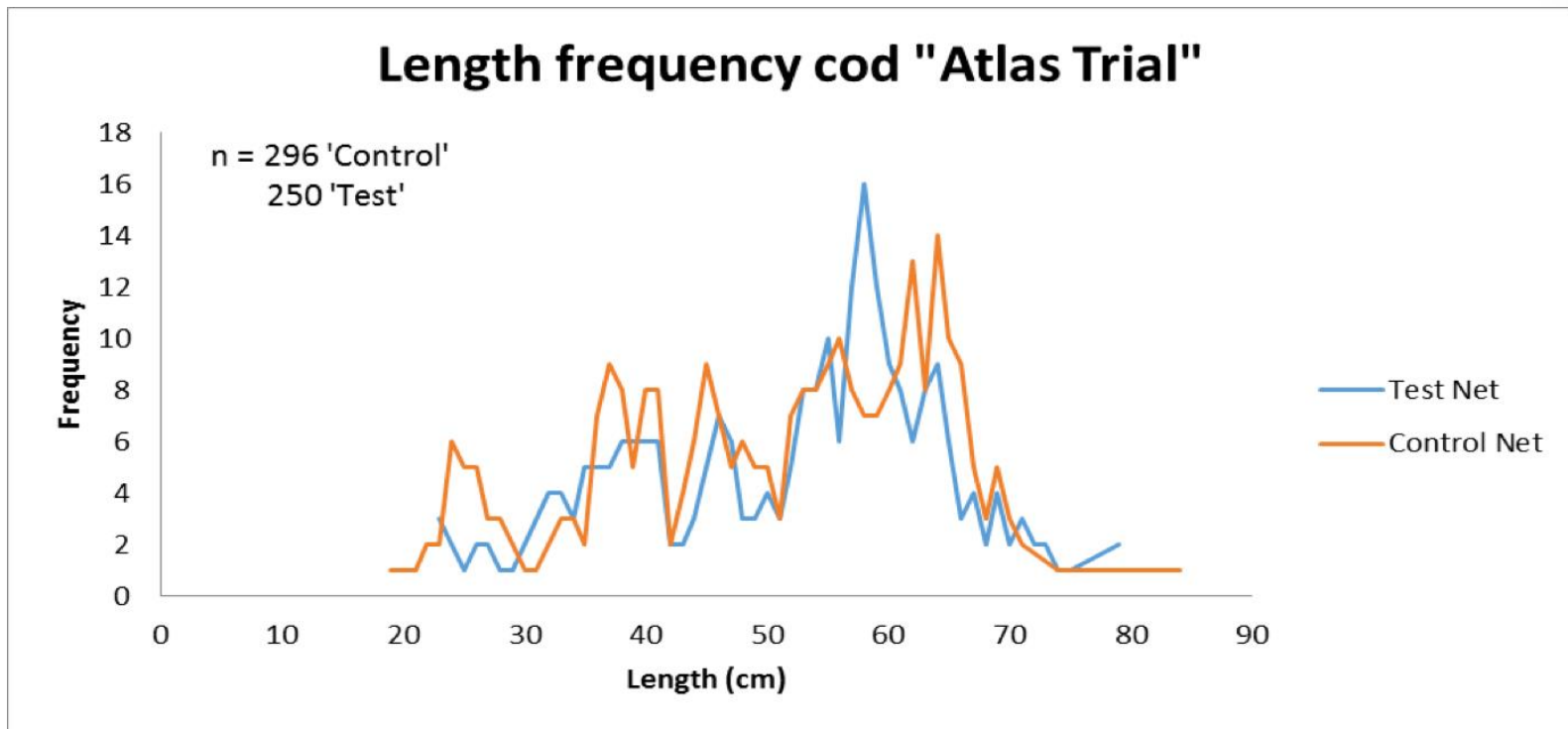
The mv Atlas trials undertook a trial to test the effectiveness of the following net design:

- A coverless letterbox net, with two feet of cover to keep tension, incorporating Square Mesh windows in the lower wings of the net.
- These panels run from the top guard mesh right up into selvedge. The panels consist of 300mm Inside Mesh with a minimum size of 5mm double netting.
- The length of the panels to be 3 metres in total, placed no closer to the start of the lower wing than 10metres.
- The Control net is a similar net with cover and wing panels covered (or traditional scraper)

The Atlas



Atlas Results



Atlas - Results

- No significant reductions of the main commercial species were apparent but it is noteworthy that the weights of haddock and anglerfish caught in the test net were in excess of those caught in the control net.
- initial analyses suggest that there is not much merit in pursuing this option as it currently stands.
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Phase 2

- 1st Call for Projects December 2016
- Future calls in March, June and September
- One project carried forward from Phase 1 – 4 panel Square mesh cod-end
- Skippers looking for innovative solutions to tackle discard issues, maximise quota use and remain economic