Northern Ireland Gear Trials Project 2017 - 2019

ANIFPO

The Northern Ireland Fish Producers' Organisation Limited

SEAFISH
the authority on seafood

afbi Agri-Food and Biosciences Institute

Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

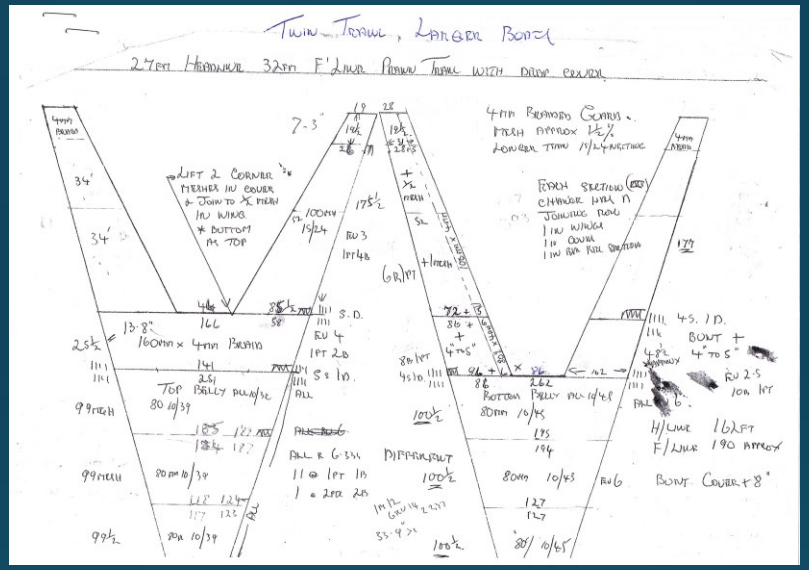
The three main fishing harbours of Northern Ireland

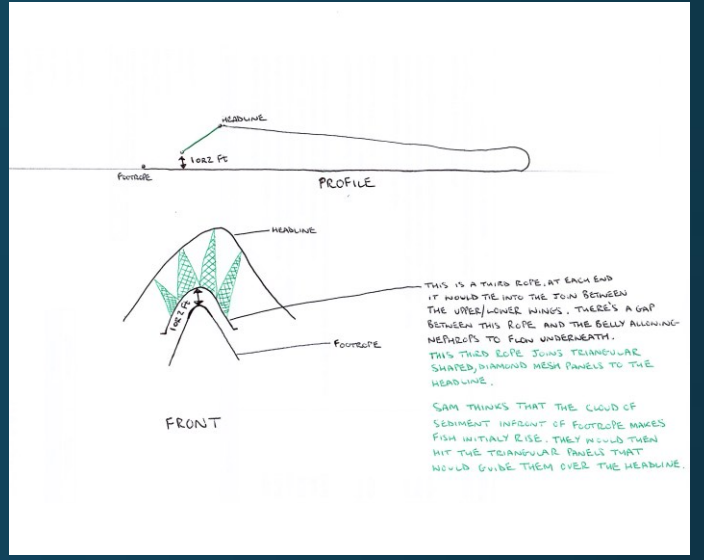
Aims

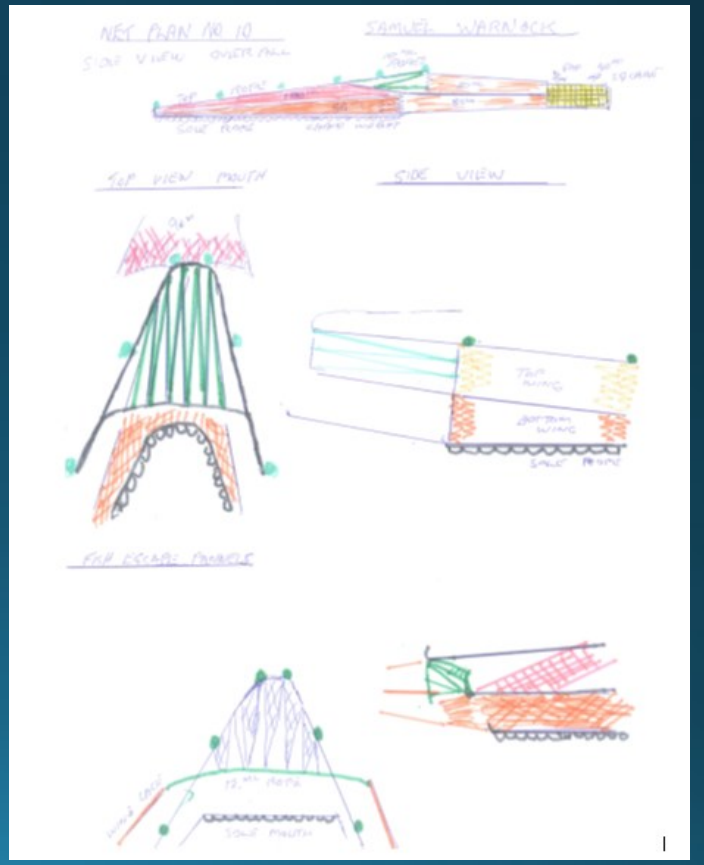
- **Reduce unwanted by-catch of quota species**
- **Avoid catching of juvenile fish species**
- **Retain commercially valuable target species**

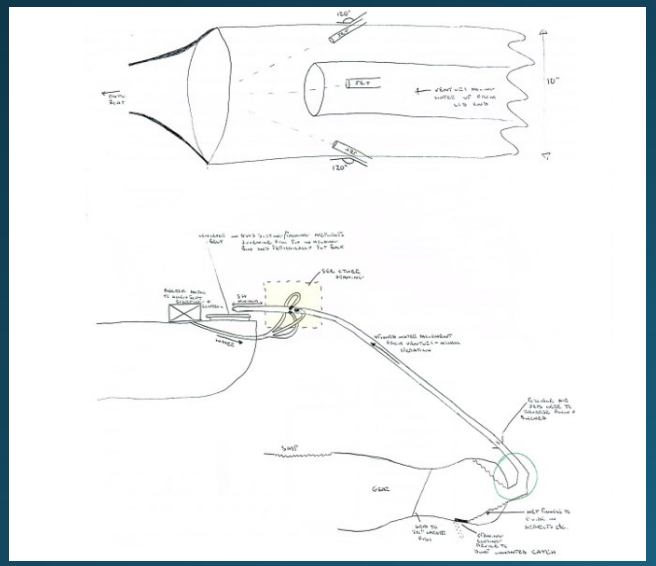
Ideas Received - 2017

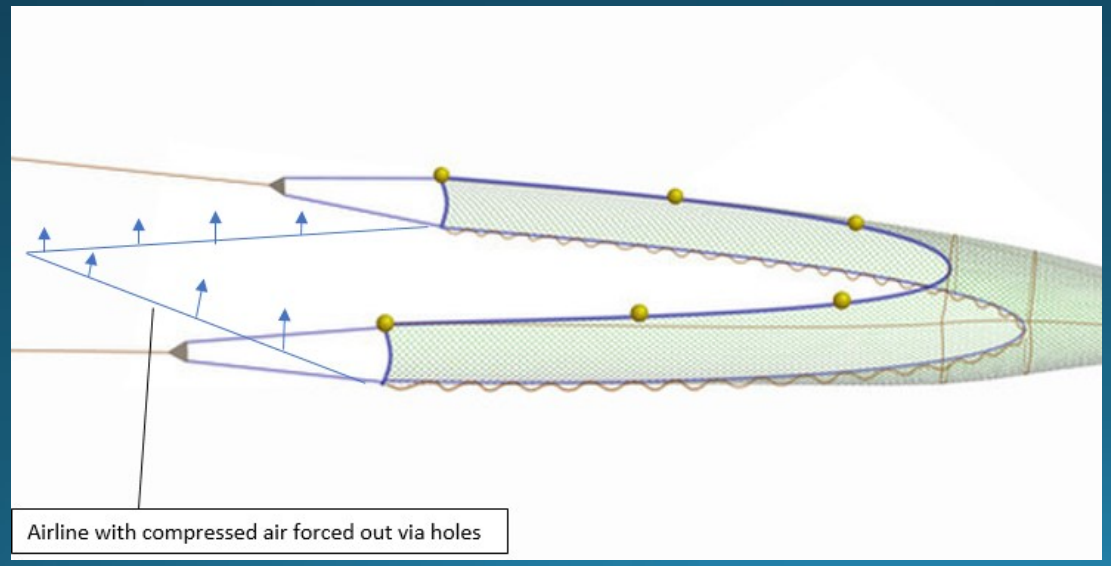
- From industry.
- From other researchers.
- From gear technologists.







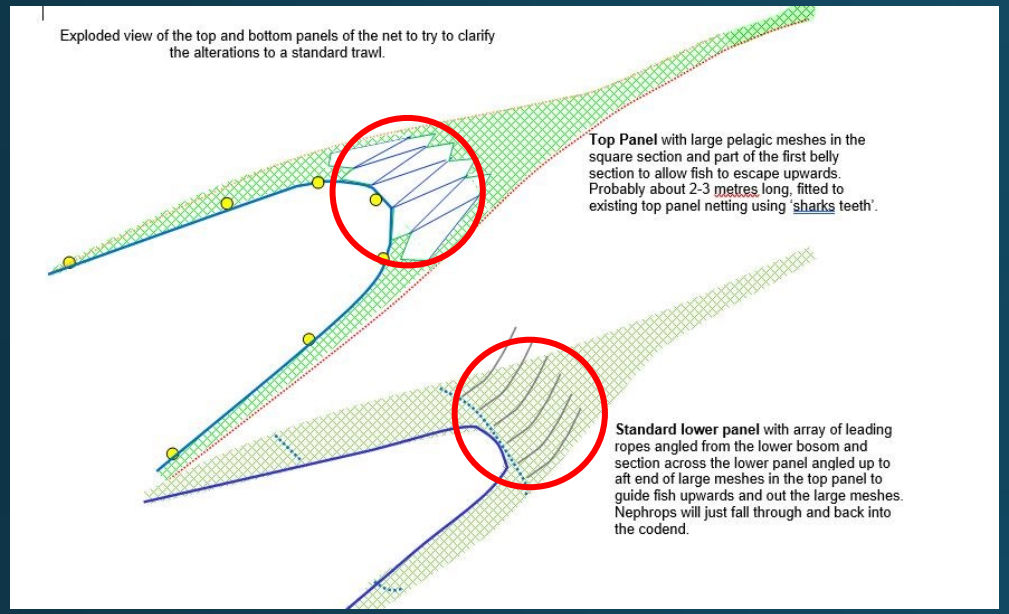


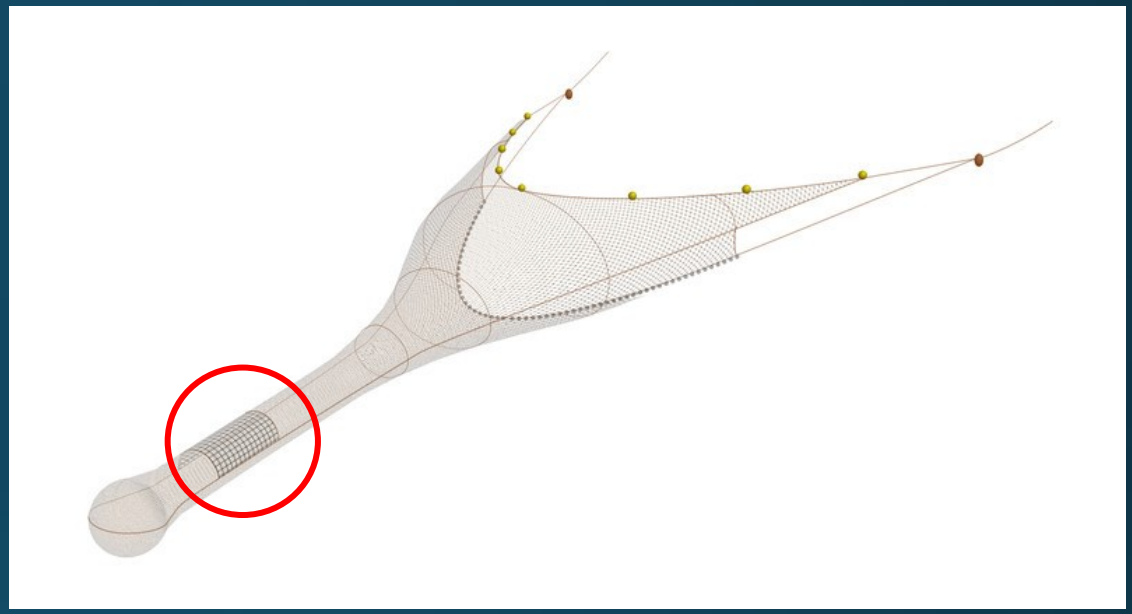


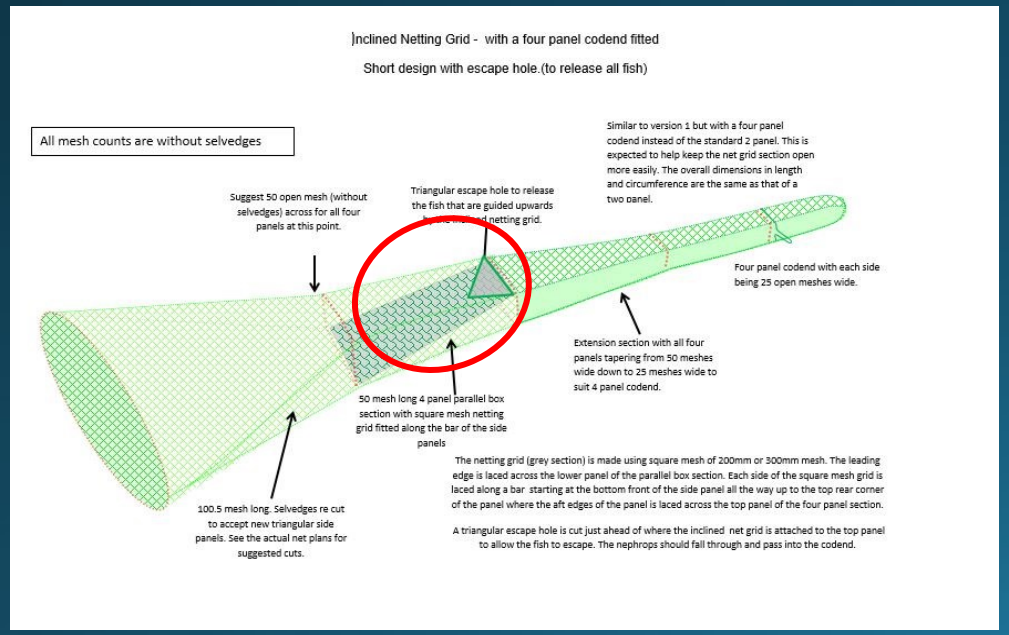
New Technologies & Approaches

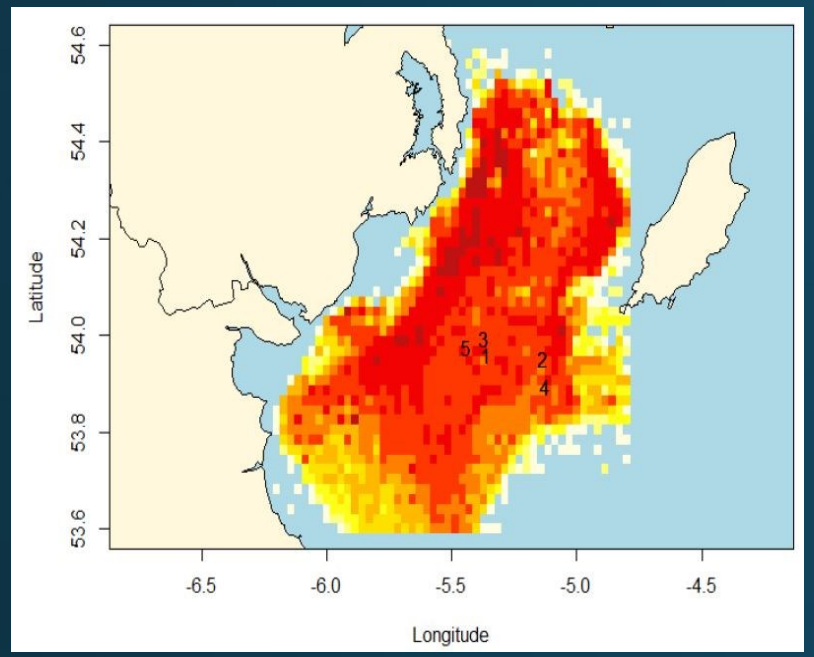
- Novel approaches to fishing activities.
- Modifications to existing gear designs.
- New gear designs.
- Incorporation of new technology into gear….
  - Lights.
  - Bubbles.
  - Sound.

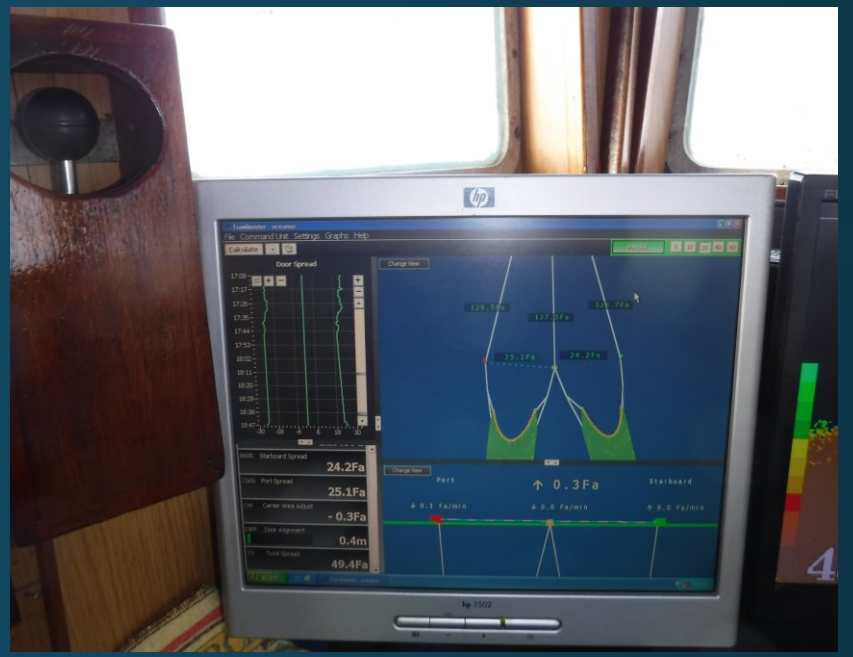
Preliminary Trials - 2017

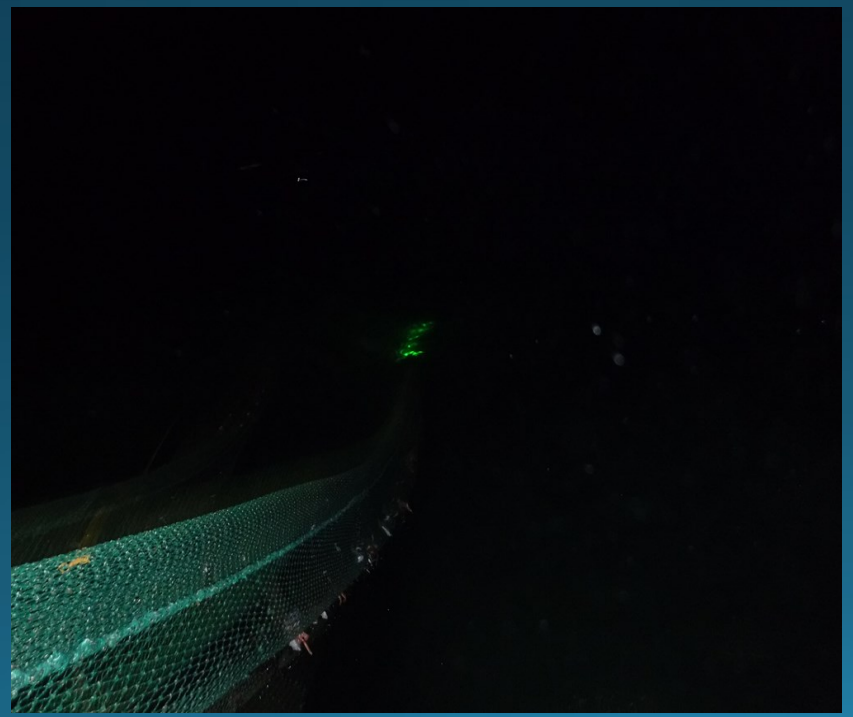




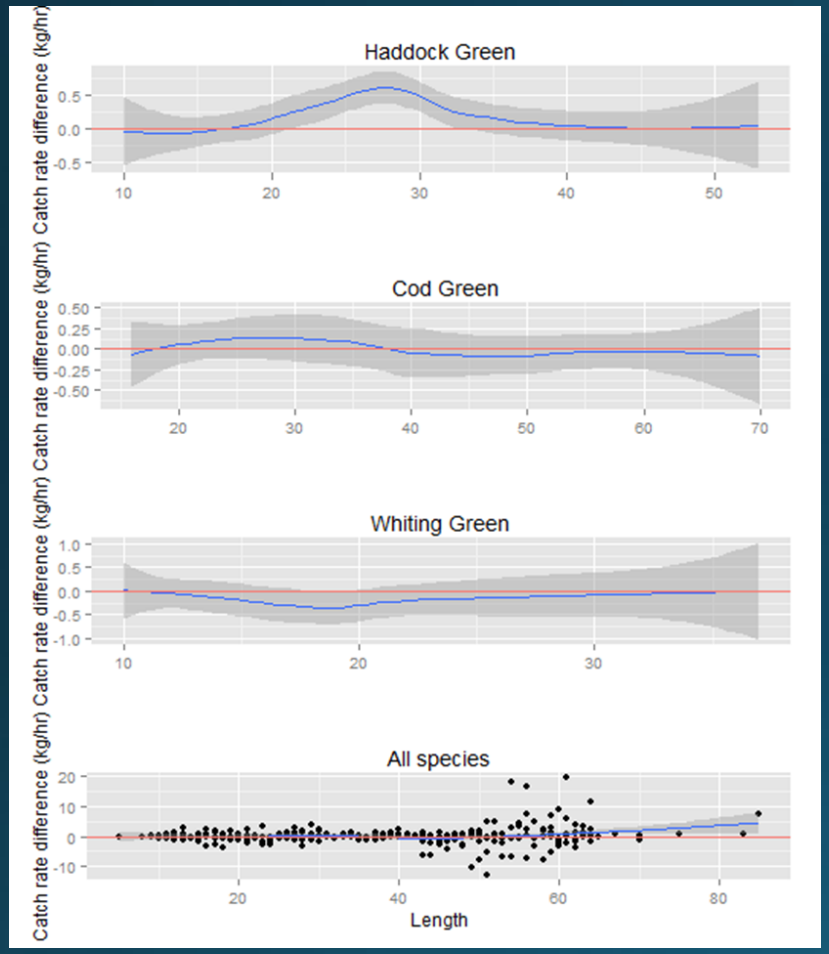


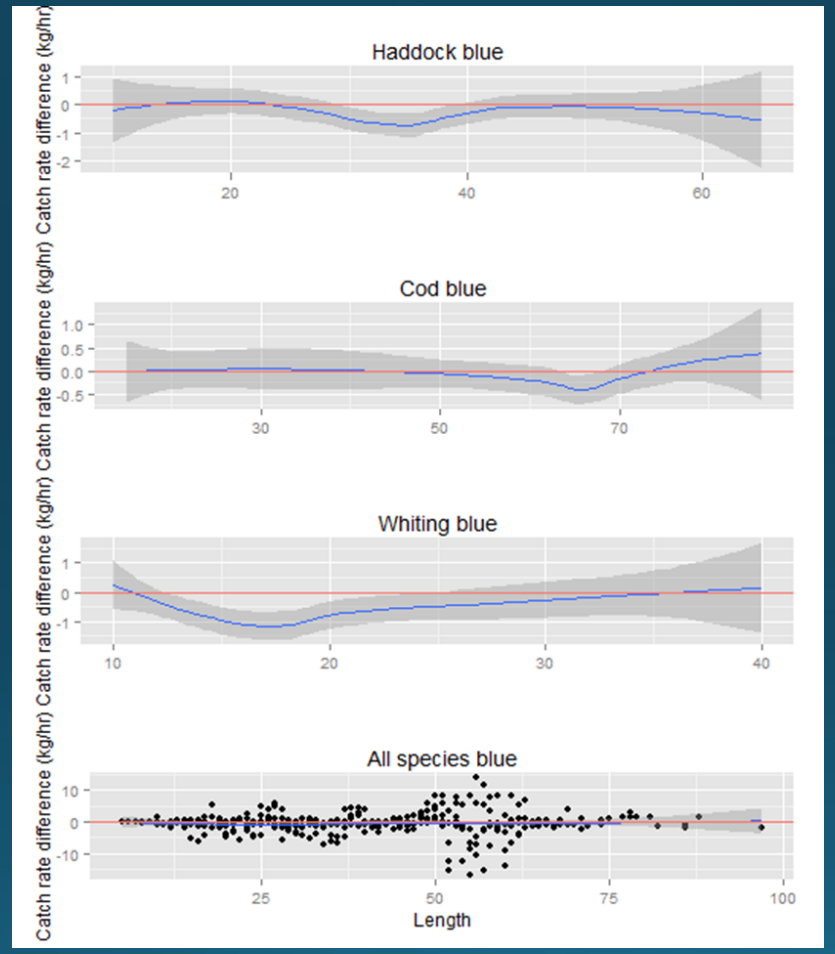

Latitude
54.6
54.4
54.2
54.0
53.8
53.6
-6.5
-6.0
-5.5
-5.0
-4.5
Longitude
5
3
1
2
4

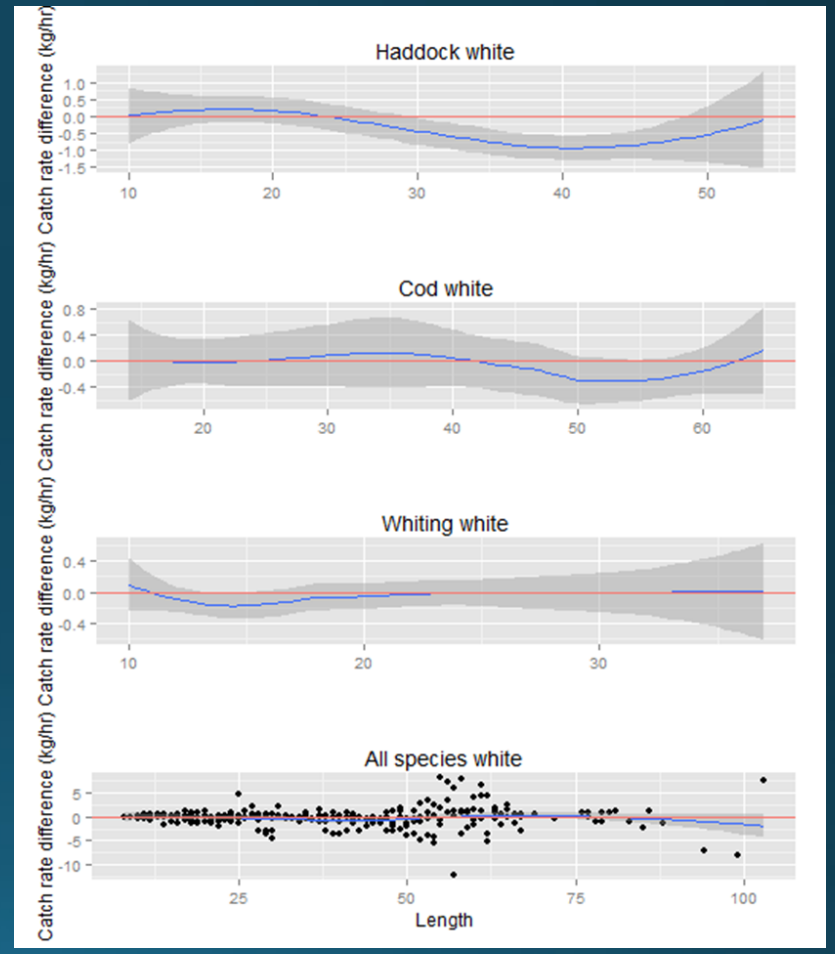

Door Spread
24.2Fa
25.1Fa
- 0.3Fa
0.4m
49.4Fa
↑ 0.3Fa
Port
Starboard



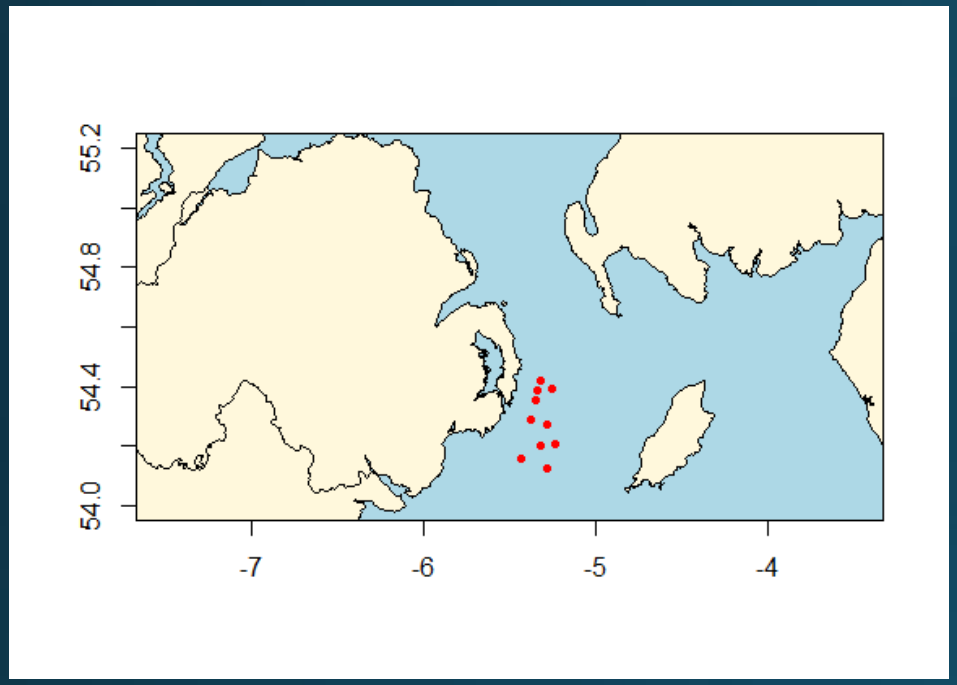
Catch rate difference – Illuminating SMPs



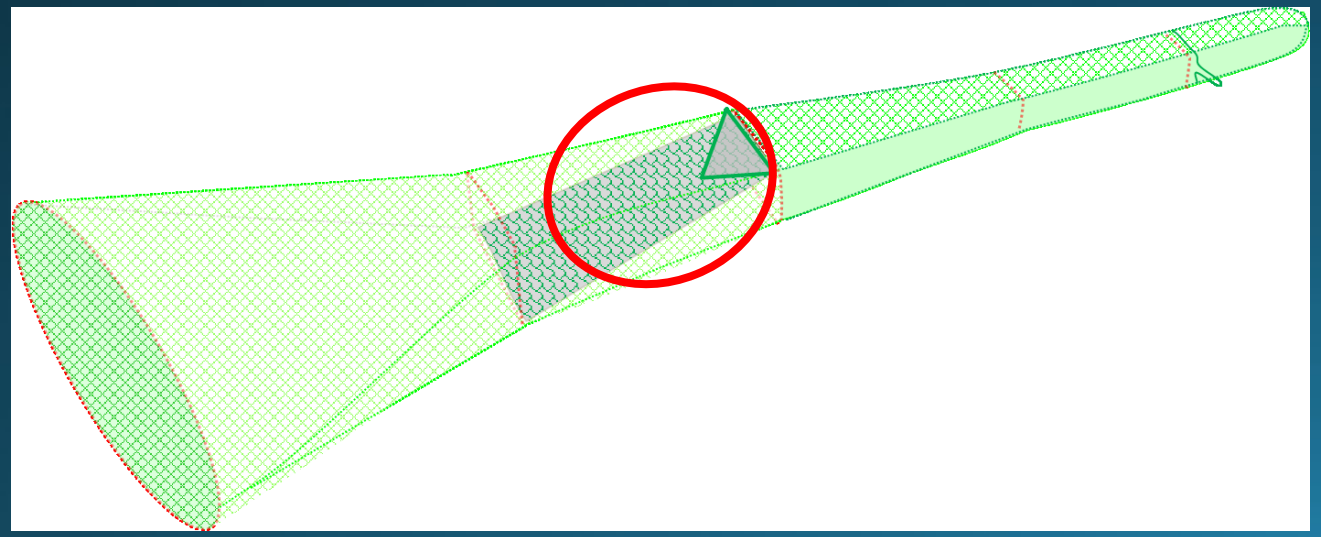


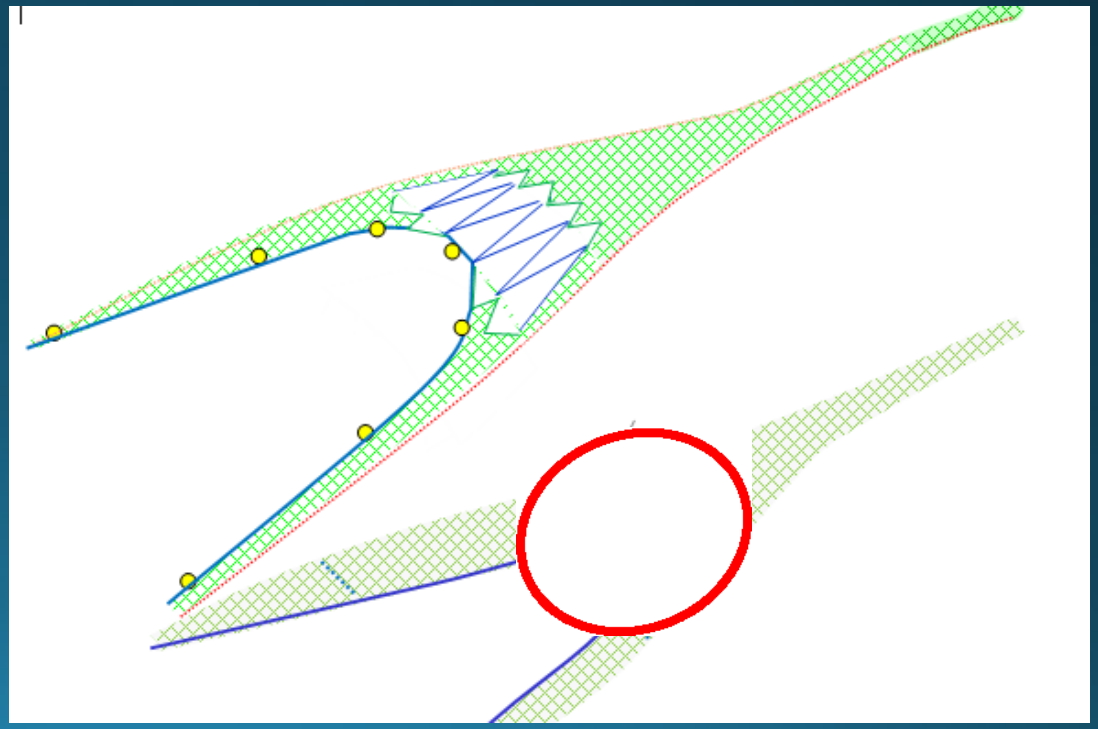


March 2018 Trials

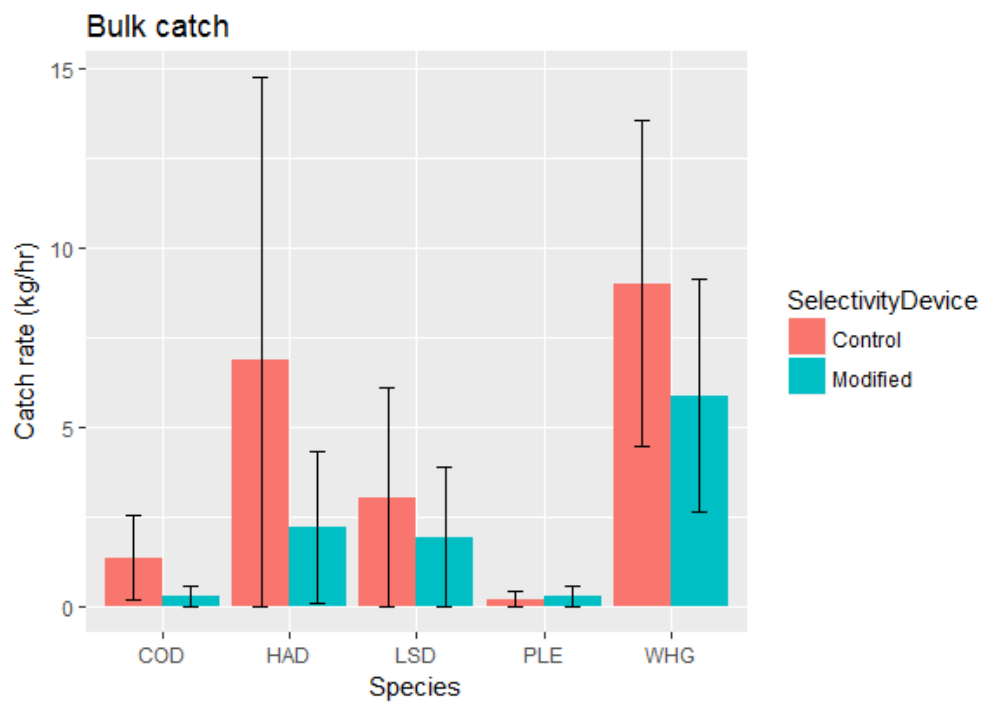


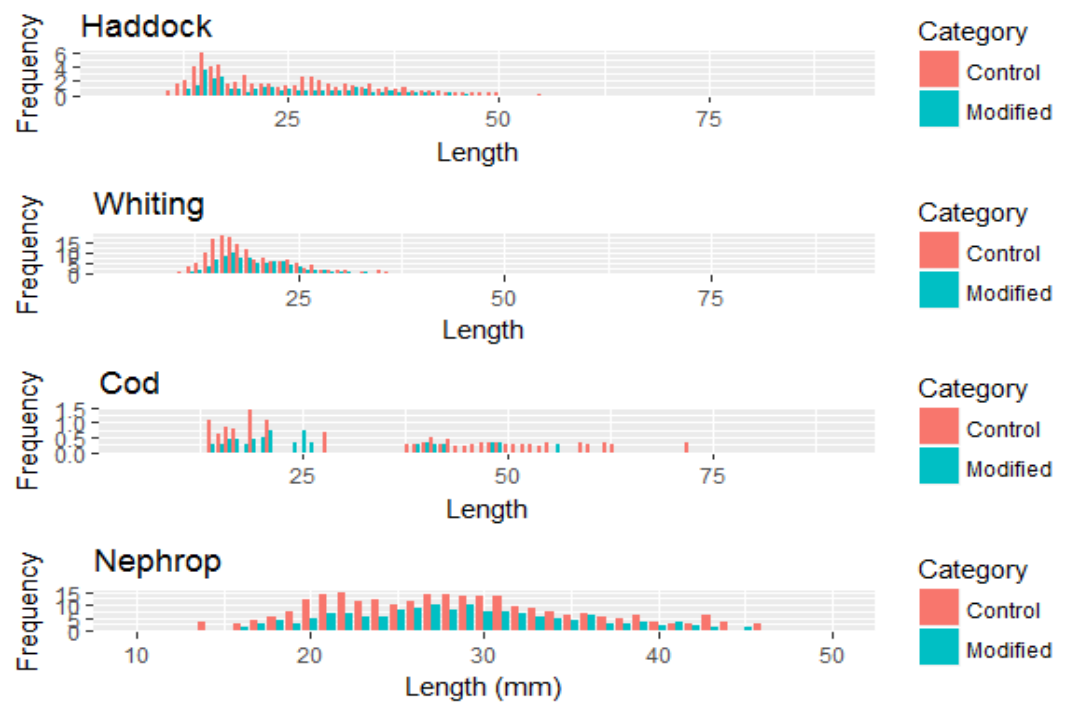
Trial Details	Trial Vessel
90mm codend/ext against 80mm codend/ext	Twin-rig
90mm codend/ext against 70mm codend/ext	Single-rig
Fin Fish Free/ green lights	Twin-rig
Inclined Net Grid/ blue lights	Twin-rig



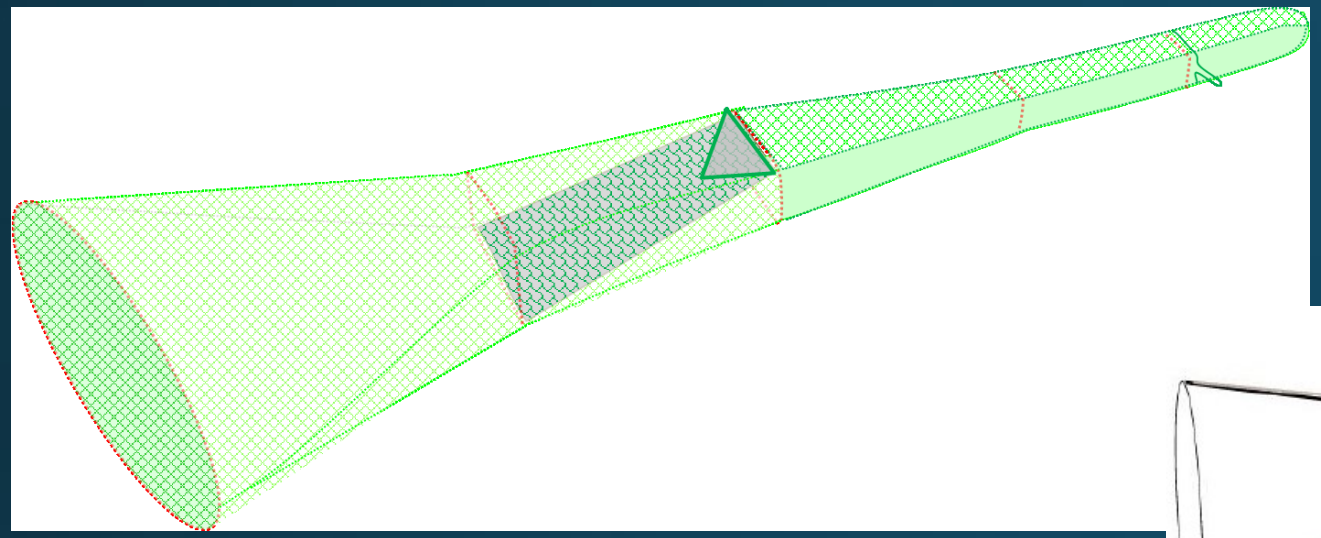


Trial Details	Trial Vessel	Results
90mm codend/ext against 80mm codend/ext	Twin-rig	whiting +51%, nephrops -31%
90mm codend/ext against 70mm codend/ext	Single-rig	whiting -65%, nephrops -53%
Fin Fish Free/ green lights	Twin-rig	whiting +25%, nephrops -21%
Inclined Net Grid/ blue lights	Twin-rig	whiting -35%, nephrops -26%



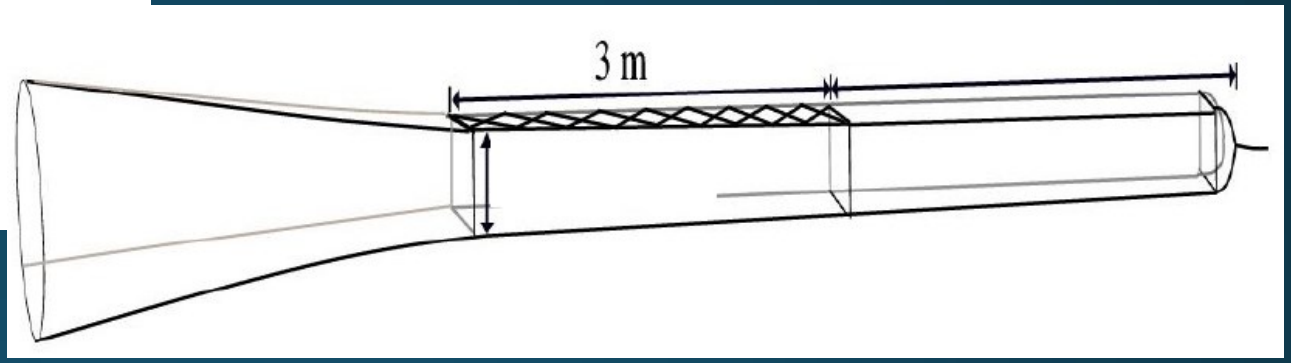


August 2018 Trials



Inclined Net Grid x2
Version 1 – repeat of March trial with lights removed
Version 2 – 400mm net grid (no lights)

SELTRA 270 Trawl



300SMP/ SELTRA 270 – Results

Species	Control (kg)	Modified (kg)	Change
Cod	<1	<1	
Haddock	26	24	-7.6%
Whiting	44	45	+2%
Nephrop	1614	1852	+13%

Thank you for listening

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