



SITE SELECTION REPORT FOR MARA SEAWEED

Site Selection Report For Mara seaweed

20TH FEBRUARY 2022

Summary

AquaMoor has been commissioned to identify five potential sites for seaweed cultivation on the East Coast of Scotland in the vicinity of Fife.

- The initial site selection criteria applied are of a physical nature such as site aspect, exposure to prevailing weather, depth, bathymetry and sea-bed character.

- The initial five sites identified were:

Cambo sands

Caiplie

Carnoustie

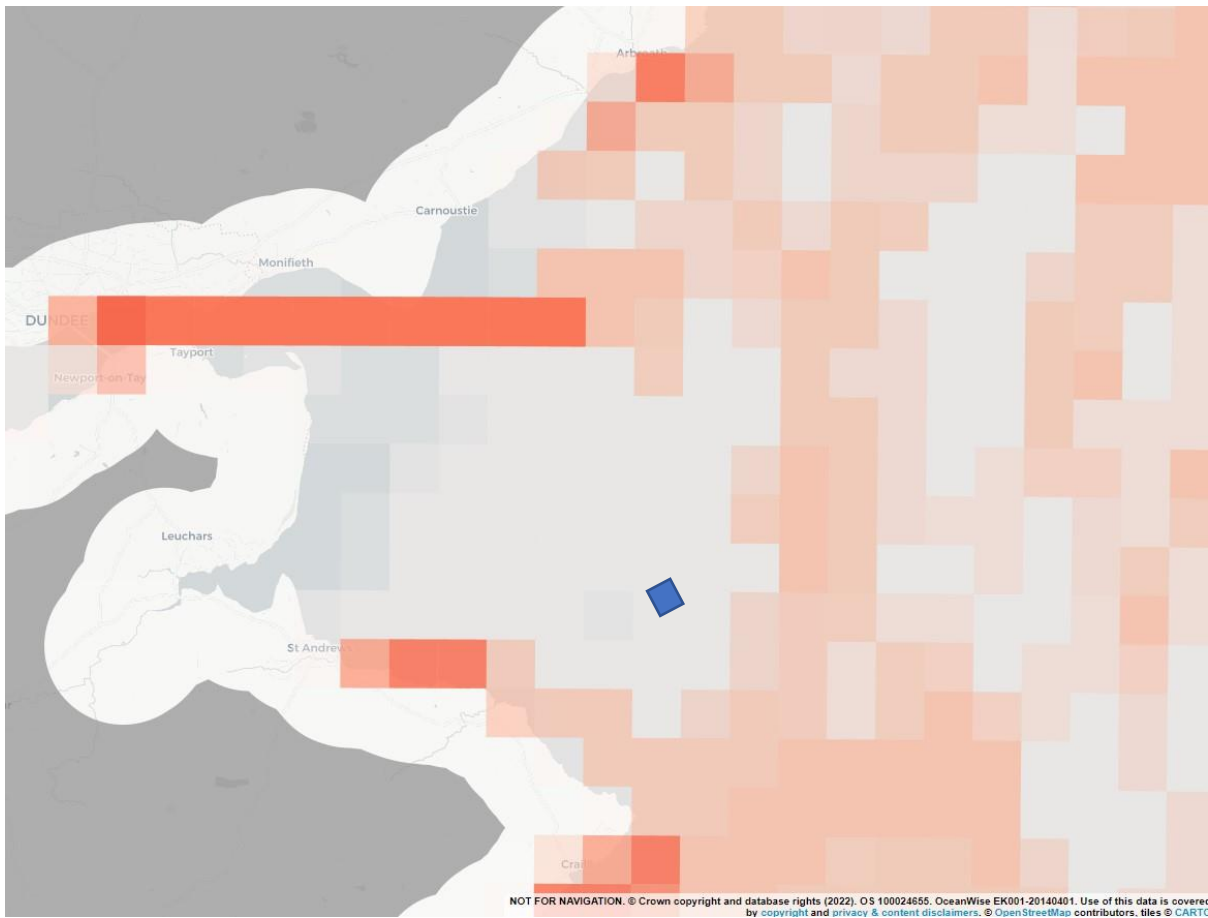
Dunbar

“Offshore” site east of Firth of Forth

- After consultation with fishermen, Caiplie and Cambo sands were rejected due to conflict of interest with existing creeling activity.
- An alternative Cambo Ledge site was identified. It is further offshore and not conflicting with the creelers. This site has been surveyed and it is not suitable for a seaweed aquaculture installation.
- A new site in Saint Andrews Bay was suggested by the fishing community. This site has been surveyed and is suitable for a seaweed aquaculture installation. It has sufficient space available for a commercial size installation.
- Both the potential Carnoustie and Dunbar sites are likely to be restricted in area due to density of marine traffic nearby.
- An alternative southern site in a larger available area north of Pease Bay has been identified as potentially suitable.
- Further investigation to find a location for an “Offshore” site east of Firth of Forth revealed it is likely to be restricted in area due to density of marine traffic nearby.
- The chart plots below show the intensity of marine traffic activity in the region.
- Additional chart plots below show the intensity of fishing activity in the region, specifically creeling, trawling and dredging.

- The position of the original proposed site at Cambo is shown on these charts as a red square. In response to fisherman's concerns that there would be conflicting interests for use of space, an alternative location was investigated at the proposed site at St Andrew's Bay which is shown on these charts as a blue square.
- The St Andrew's Bay site does not conflict with any recorded creeling, trawling or dredging activity according to Marine Scotland's NMPI data maps.
- The proposed location meets multiple criteria required for siting a seaweed farm. It will not displace any existing commercial or recreational activity in the region which is a primary concern of the client.
- The combination of depth and bathymetry at this site are highly likely to offer a more favourable wave climate than would be expected to be found in other locations, such as further inshore.
- The proposed location at St Andrew's Bay offers sufficient (currently unused) space for the development of a sustainable seaweed farm to a viable commercial scale. This will allow farming operations to expand as planned, attracting more investment to the area and creating more jobs both upstream and downstream of this enterprise.

AIS Shipping Traffic – All vessel types



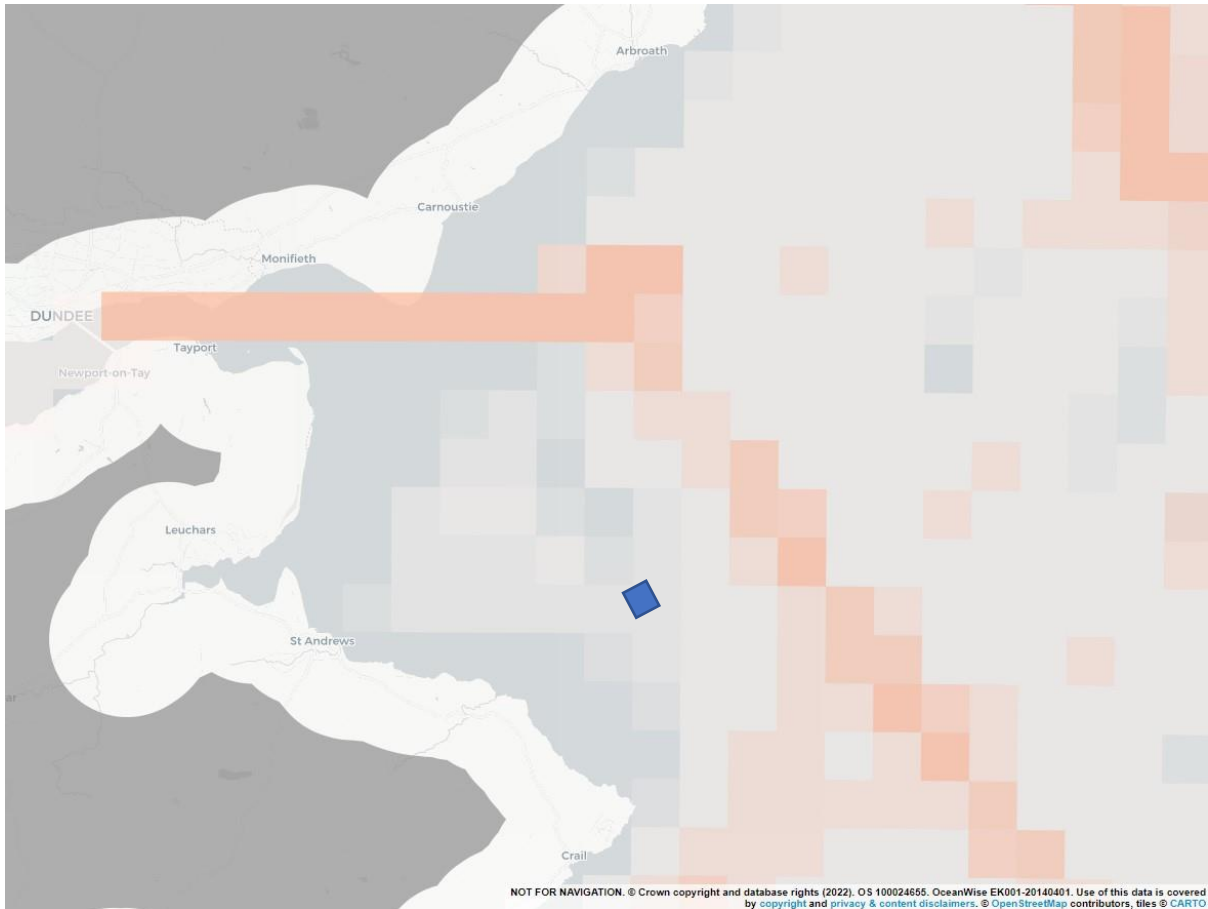
Forth and Tay region (Mask)



AIS Shipping Traffic - Average weekly density of all vessel types 2012 - 2017 (time aware)

- 5 transits or less
- 5 - 20 transits
- 20 - 50 transits
- 50 - 150 transits
- 150 transits or greater

AIS Shipping Traffic – Cargo vessels



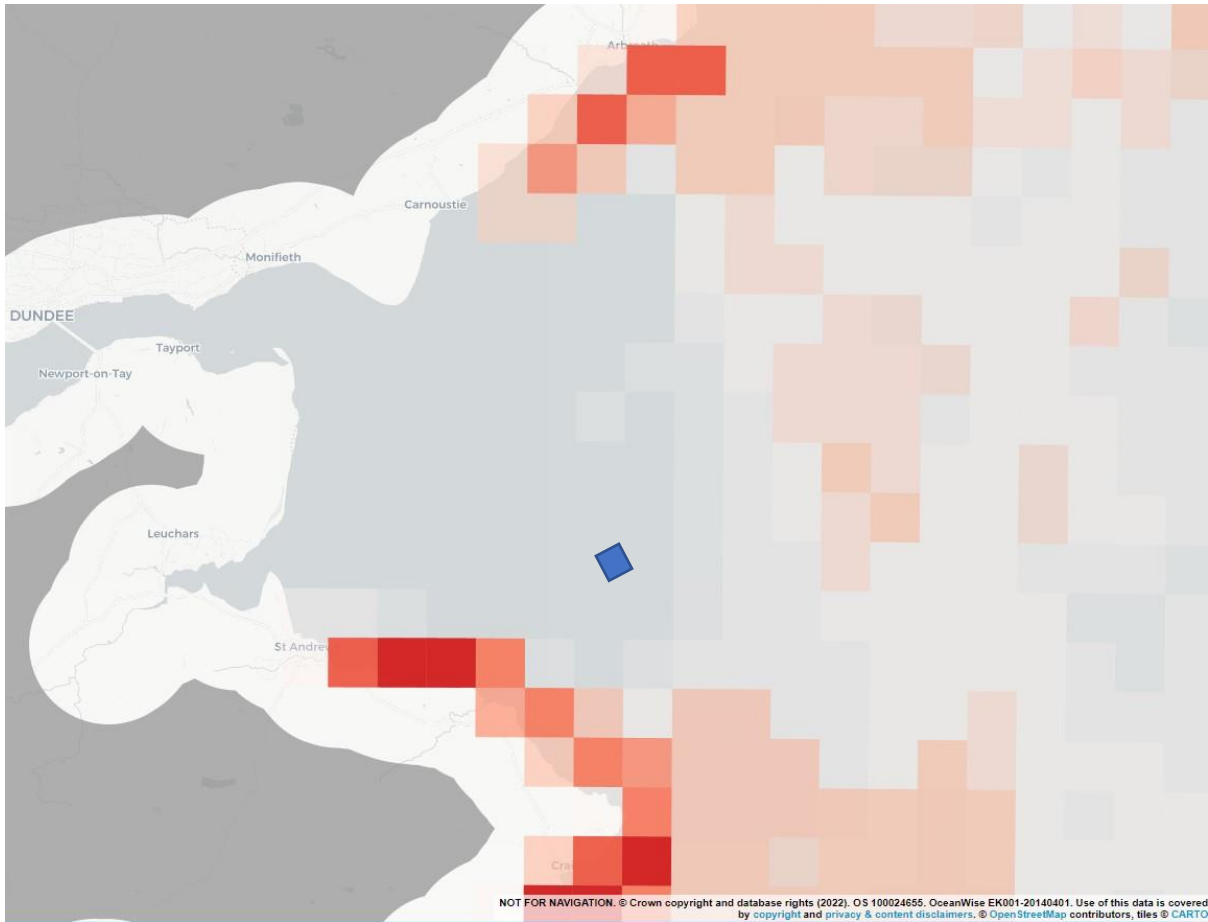
Forth and Tay region (Mask)



AIS Shipping Traffic - Average weekly density of cargo vessels 2012 - 2017 (time aware)

- 2 transits or less
- 2 - 10 transits
- 10 - 20 transits
- 20 - 50 transits
- 50 transits or greater

AIS Shipping Traffic – Fishing vessels



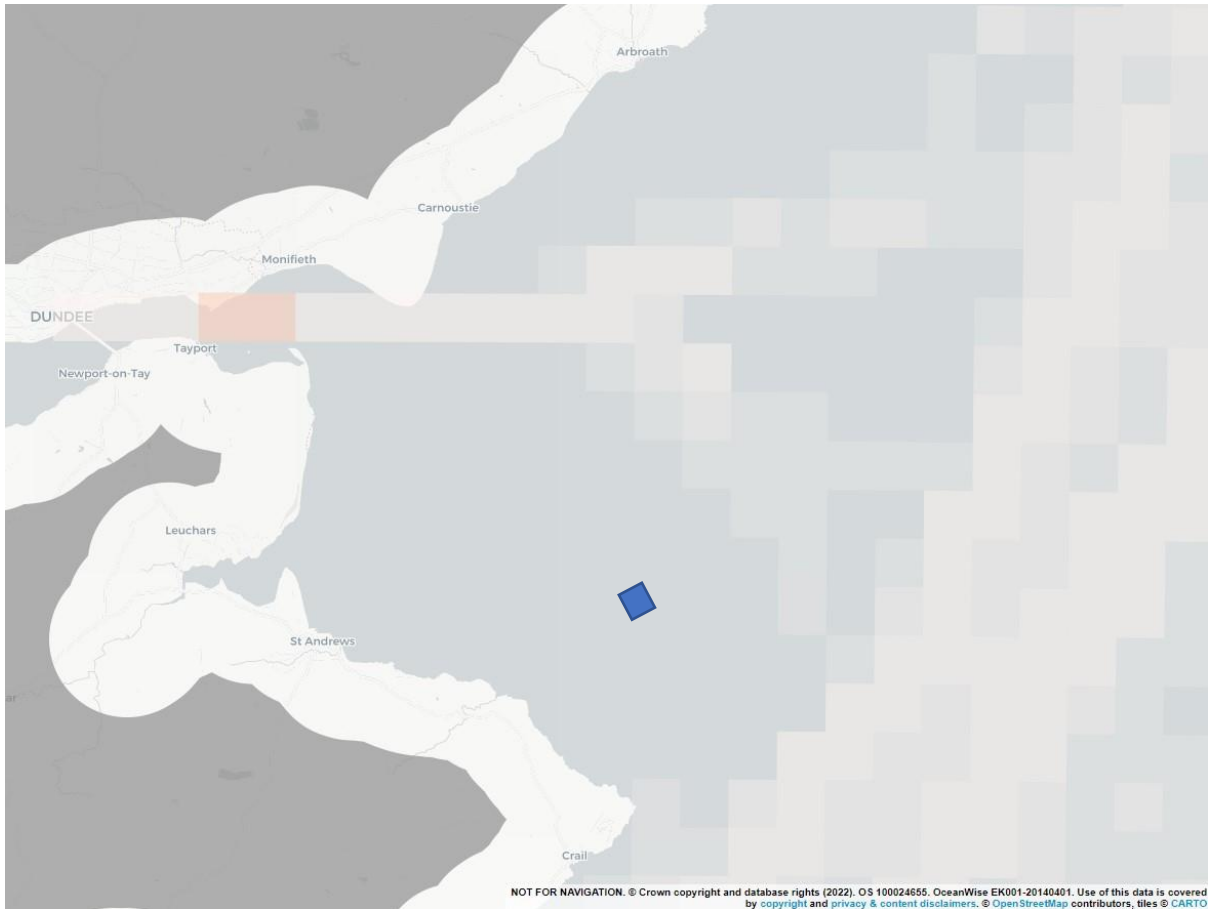
Forth and Tay region (Mask)



AIS Shipping Traffic - Average weekly density of fishing vessels 2012 - 2017 (time aware)

- 2 transits or less
- 2 - 10 transits
- 10 - 20 transits
- 20 - 50 transits
- 50 transits or greater

AIS Shipping Traffic – Passenger vessels



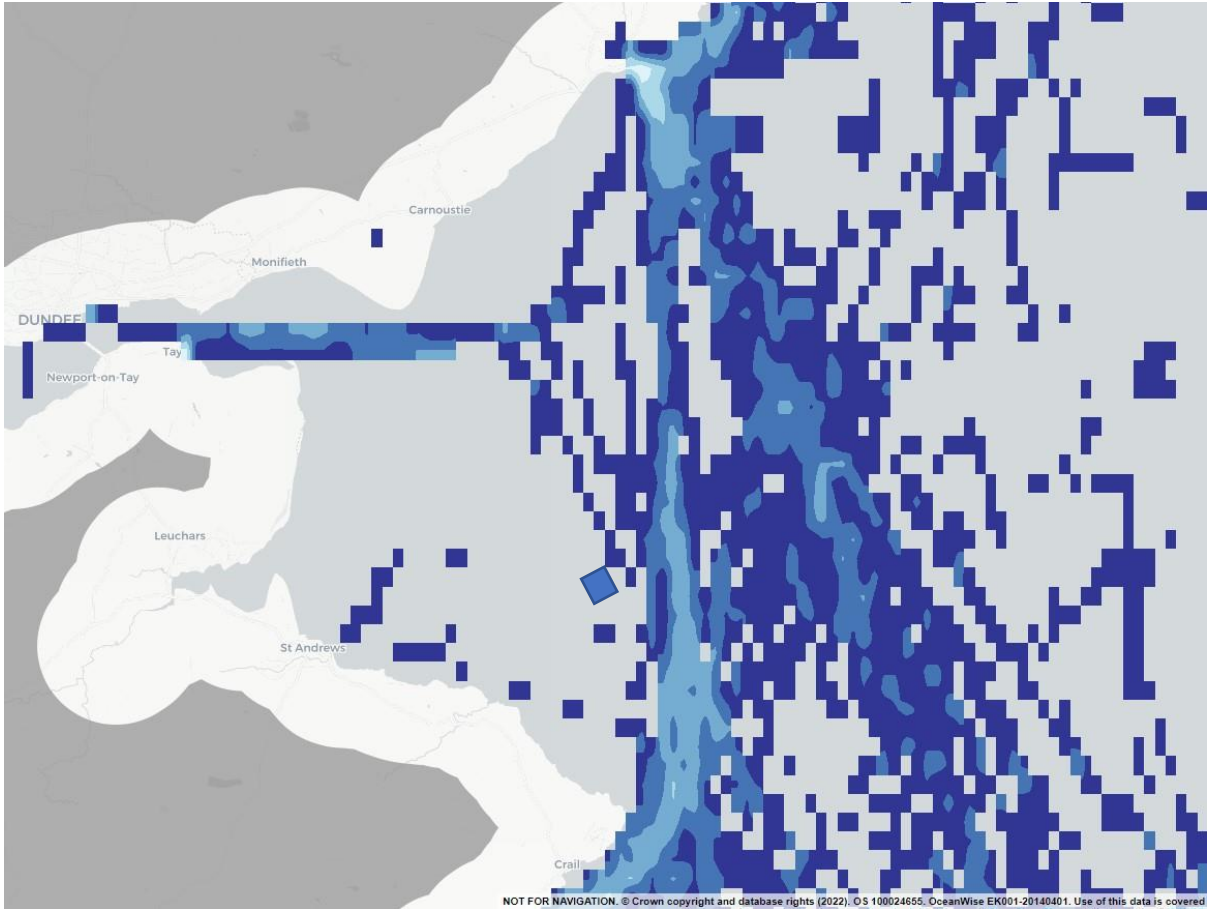
Forth and Tay region (Mask)



AIS Shipping Traffic - Average weekly density of passenger vessels 2012 - 2017 (time aware)

- 2 transits or less
- 2 - 10 transits
- 10 - 20 transits
- 20 - 50 transits
- 50 transits or greater

Recreational AIS Intensity – RYA Coastal Atlas

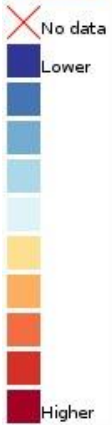


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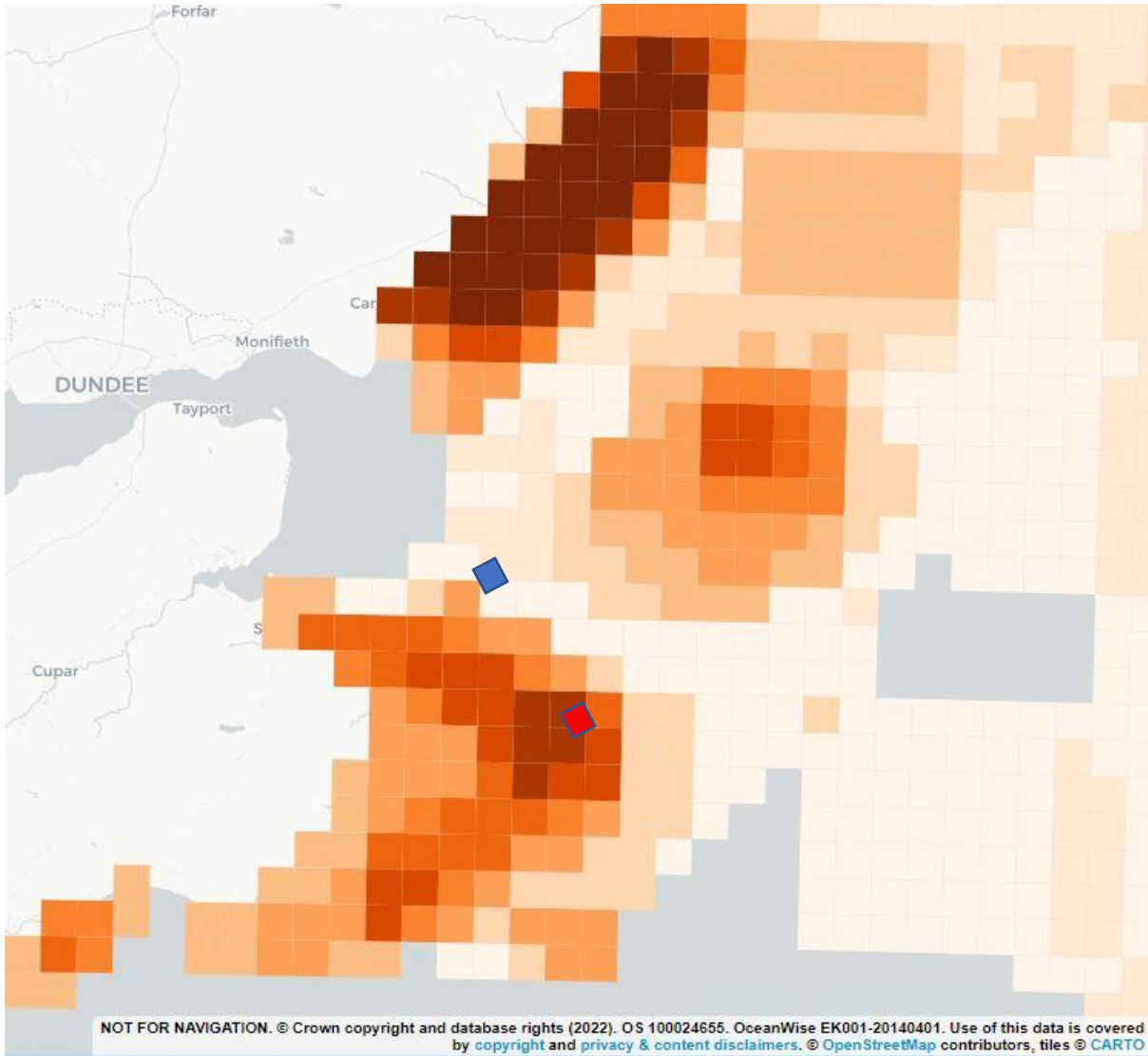
Forth and Tay region (Mask)



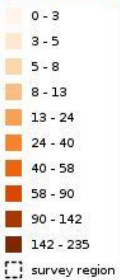
Leisure and Recreation - Recreational AIS intensity - RYA UK Coastal Atlas of Recreational Boating



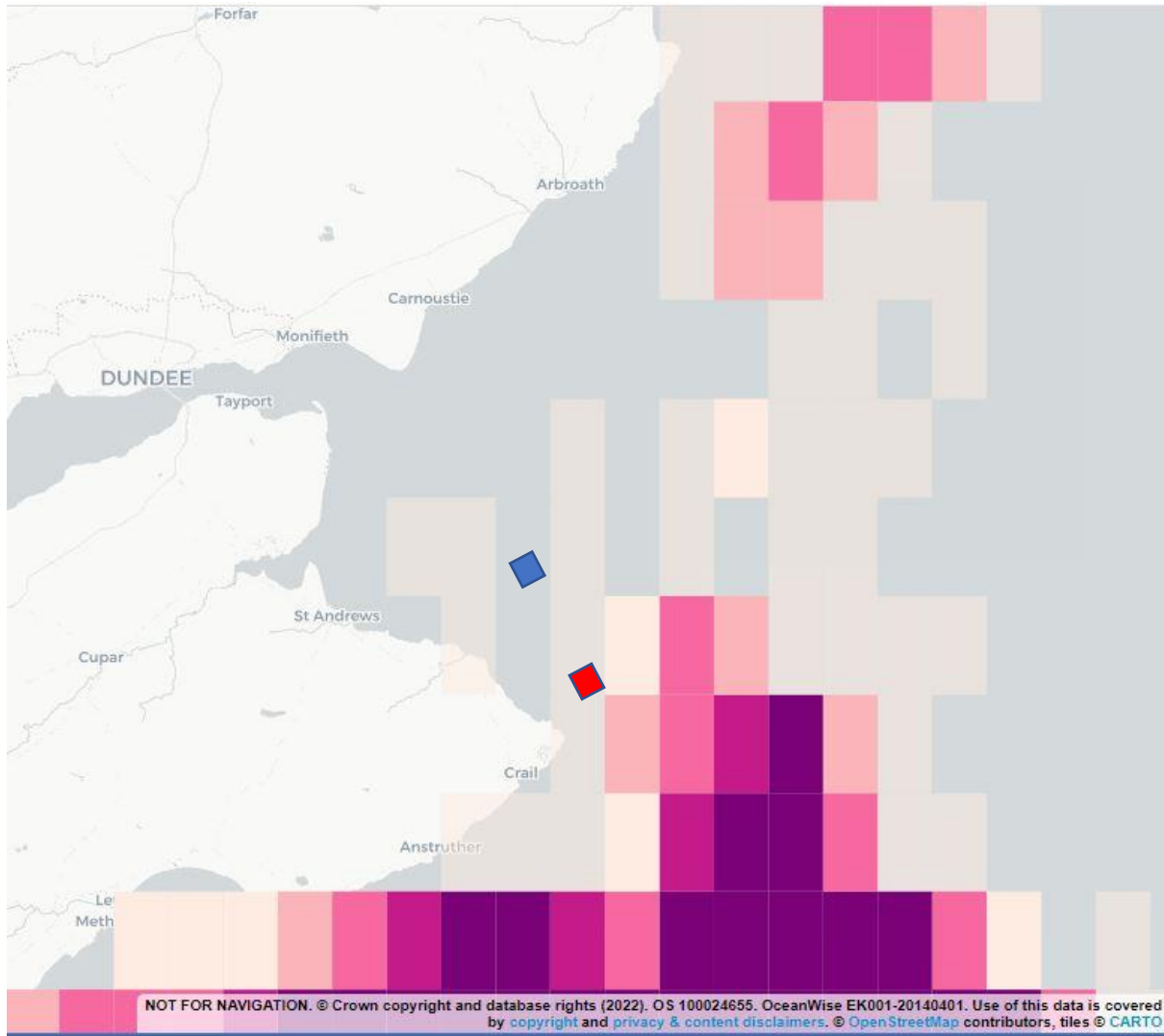
Creel Fishing – Average Number of crab and lobster hauls per day



Creel Fishing Effort Study - Average number of crab and lobster hauls per day



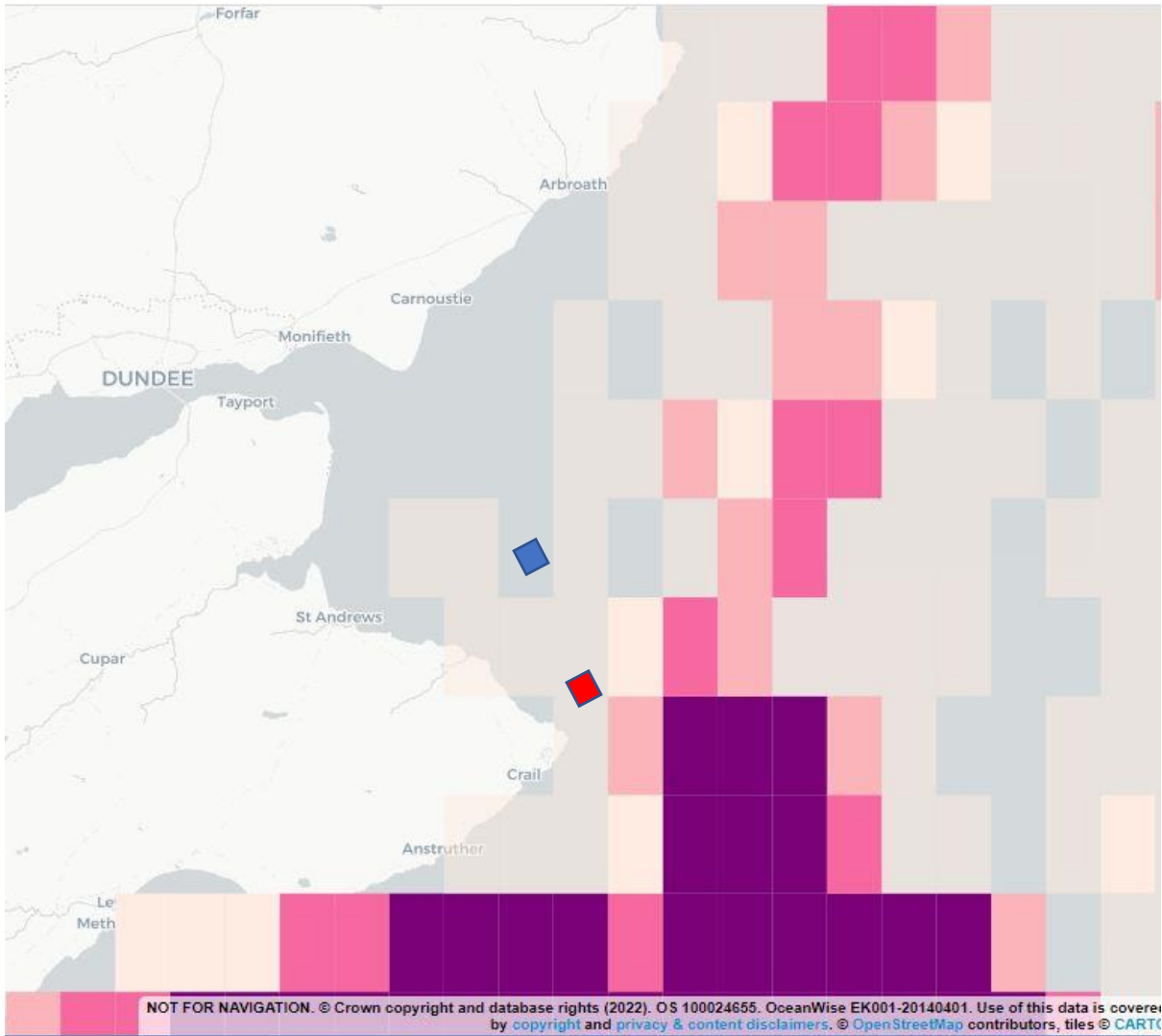
VMS Fishing Intensity – Average Intensity of Bottom Trawling for nephrops and crustaceans



VMS Fishing Intensity - Average intensity (hours) of fishing for nephrops and crustaceans with bottom trawls (OT CRU) 2010-2020 (ICES SR.2021.11)

- 2 to 12hrs
- 12hrs to 1 day
- 1 to 2 days
- 2 days to 1 week
- 1 to 2 weeks
- Greater than 2 weeks

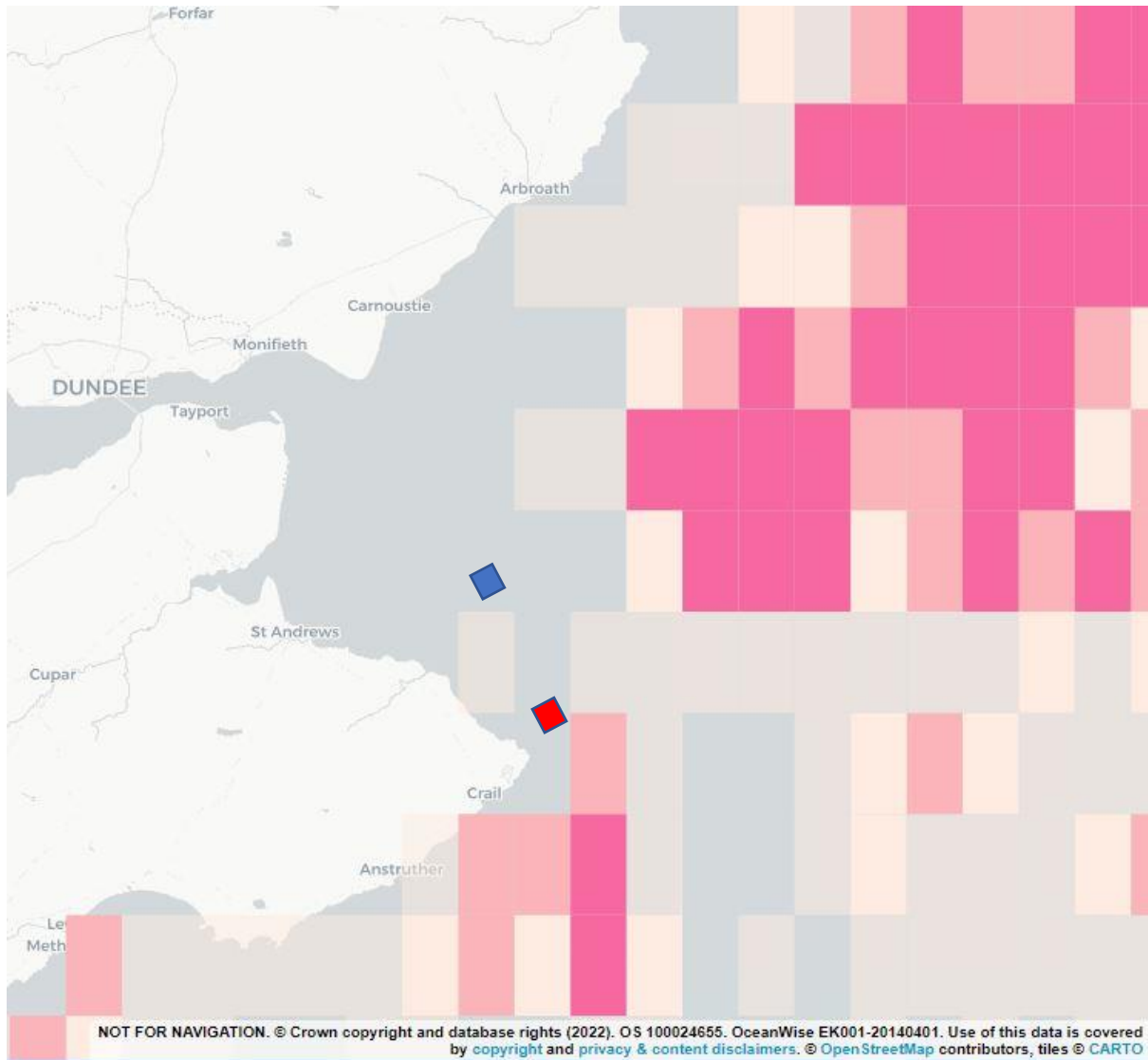
VMS Fishing Intensity – Average Intensity of Bottom Trawling (all)



VMS Fishing Intensity - Average intensity (hours) of fishing with bottom trawls (OT) 2010-2020 (ICES SR.2021.11)

- 2 to 12hrs
- 12hrs to 1 day
- 1 to 2 days
- 2 days to 1 week
- 1 to 2 weeks
- Greater than 2 weeks

VMS Fishing Intensity – Average Intensity of Bottom Dredging (all)



VMS Fishing Intensity - Average intensity (hours) of fishing with dredges (DRB MOL) 2010-2020 (ICES SR.2021.11)

- 2 to 12hrs
- 12hrs to 1 day
- 1 to 2 days
- 2 days to 1 week
- 1 to 2 weeks
- Greater than 2 weeks