## Marine Scotland Science

# **NOTICE TO MARINERS**

### PrePARED survey of fine-scale fish distributions in the Moray Firth

Date of Notice: 18th June, 2023

Mariners are advised that Marine Scotland Science (MSS) intend to undertake a survey of broad-scale fish distributions within the **Beatrice, Caledonia, Moray East and Moray West Offshore Windfarm (OWF) sites**, as part of the PrePARED programme of works. PrePARED is a four-year partnership, led by Scottish Government's Marine Directorate and co-funded by Crown Estate Scotland, which will help improve understanding of how seabirds, marine mammals and fish respond to OWFs. The data collected from this survey is essential to account for the effect of pelagic and demersal prey distributions on marine top predators and reduce uncertainty in our understanding of the effects of OWF on marine food-webs and therefore improve confidence in environmental impact assessment.

The survey will take place on MSS's research vessel, **MRV Alba na Mara**, between **June 2<sup>nd</sup> and June 16<sup>th</sup> 2023**. The vessel will depart from Fraserburgh harbour and will make passage to the Moray Firth on the 2nd. Alba na Mara works as a day boat (0700 to 1900), and in the evenings will either anchor in a sheltered bay near the shoreline or stay out at sea in areas clear of OWF. A constant 24h watch is in place.

Acoustic data will be collected along predefined transects (**Figure 1**), with 4 transects bisecting Beatrice, 6 bisecting Moray East and 6 bisecting Moray West windfarm sites. The operation will consist of recording echotraces (fish marks) with the echo-sounder while traveling at a constant speed along transects (6-9 knots). The minimum distance the ship will pass to a turbine is 300m, and 500 from an offshore transmission station. The start/end points of transects are indicated in **Table 1**. Fish marks will be sampled using a pelagic trawl while outside the OWFs.

**Figure 1**. Map showing the planned numbered acoustic transects (coloured lines) and locations of previous demersal fishing locations.



Once acoustic transects are completed the fishing gear will be swapped and demersal trawl stations (~5-10 sites) will be sampled with the remaining time (**figure 1**)..

At demersal trawl locations, a **CTD sensor** (Figure 2A) will be lowered to 5m from the seabed. A **Day Grab** (Figure 2B) that samples the seabed sediment may also be deployed at these locations. The vessel will remain stationary while collecting these samples.



**Figure 2.** Photographs of the equipment being deployed on Marine Scotland Science's broad scale fish distribution survey. A – CTD sensor; B – Day Grab.

Table 1. Number, length and estimated time it will take for each fisheries acoustic transect.

Transect	Length (km)	Time(hrs)
T1	29.46	1.99
Т2	28.67	1.94
Т3	27.22	1.84
Τ4	33.62	2.27
Т5	34.59	2.34
Т6	30.83	2.08
Τ7	26.79	1.81
Т8	26.92	1.82
Т9	25.95	1.75
T10	25.71	1.74
T11	27.67	1.87
T12	27.21	1.84
T13	26.55	1.79
T14	27.59	1.86
T15	28.07	1.90
T16	29.26	1.98
T17	29.10	1.97
T18	23.99	1.62
Total	509.20	34.41

#### **Contact details**

All enquiries should be made to Robert Main, Marine Scotland (Scientist in Charge of the survey). Email: <u>robert.main@gov.scot</u>

Marine Scotland Science Switch Board Tel: 0131 244 2500

#### Vessel Details

Information about Alba na Mara, the Marine Research Vessel used for the survey.

Alba na Mara		
Call Sign:	2AIE4	
MMSI:	235059857	
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	MRVAlbaNaMara@gov.scot	
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