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MRV *Alba na Mara*

Survey 0419A

PROGRAMME

24 March - 8 April 2019

Ports

Loading: Fraserburgh, 21 March 2019

Unloading: Fraserburgh, 08 April 2019

In setting the survey programme and specific objectives, etc. the Scientist-in-Charge needs to be aware of the restrictions on working hours and the need to build in adequate rest days and rest breaks as set out in Marine Scotland's Working Time Policy (Lab Notice 34/03). In addition, the Scientist-in-Charge must formally review the risk assessments for the survey with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the Survey Report, to I Gibb and the Survey Summary Report (old ROSCOP form) to M Geldart, within four weeks of a survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

Project: 20231/20332: 16 days

Gear:

Subsurface passive acoustic moorings (incl. cetacean detectors and sound recorders)
Subsurface VEMCO VR2 salmon tag detector moorings

Objectives:

1. To deploy 96 moorings with VR2 salmon detectors in Aberdeen Bay Array.
2. To deploy 31 moorings at ECOMMAS marine mammal/noise monitoring locations (20 with C-PODs cetacean click detectors; 10 with C-PODs and SM2M sound recorders; Figure 2).
3. To recover two ECOMMAS moorings at Helmsdale 15 and Arbroath 10 sites that were deployed in November 2018.
4. To retrieve and deploy a mooring with C-POD and sound recorder at an offshore noise monitoring location East of Orkney (as part of the JOMOPANS project).
5. To deploy 5 moorings with CPODS East of Arbroath in conjunction with SSE Renewables and Seagreen.
6. To deploy 60 moorings with Salmon detectors on the Moray Firth in conjunction with Atlantic Salmon Trust

***Preliminary Itinerary:**

21/3 Load 30 Salmon moorings for Aberdeen Bay Array

24/3 Sail south from Fraserburgh, deploy Salmon moorings in Aberdeen Bay

25/3 Reload another 31 moorings, deploy Salmon moorings in Aberdeen Bay

26/3 Reload remaining 35 moorings, deploy Salmon moorings in Aberdeen Bay

27/3 Load and deploy 1 JOMOPANS mooring East of Orkney and 30 ECOMMAS moorings from Latheron South to St Abbs, also 5 mooring east of Arbroath for SSE/Seagreen
04/3 Load and deploy around 60 AST Salmon Moorings in the Moray Firth.

*N.B. timings may vary with weather and deployment progress.

Further details on load weights etc. will be supplied separately.

Weather conditions and water depth will dictate whether inshore deployment locations are operationally possible.

A Notice to Mariners has been issued for all mooring locations. Any updates or location changes will be issued if required.

Normal contacts will be maintained with the laboratory.

Submitted:
P Stainer
11 March 2019

Approved:
I Gibb
13 March 2019

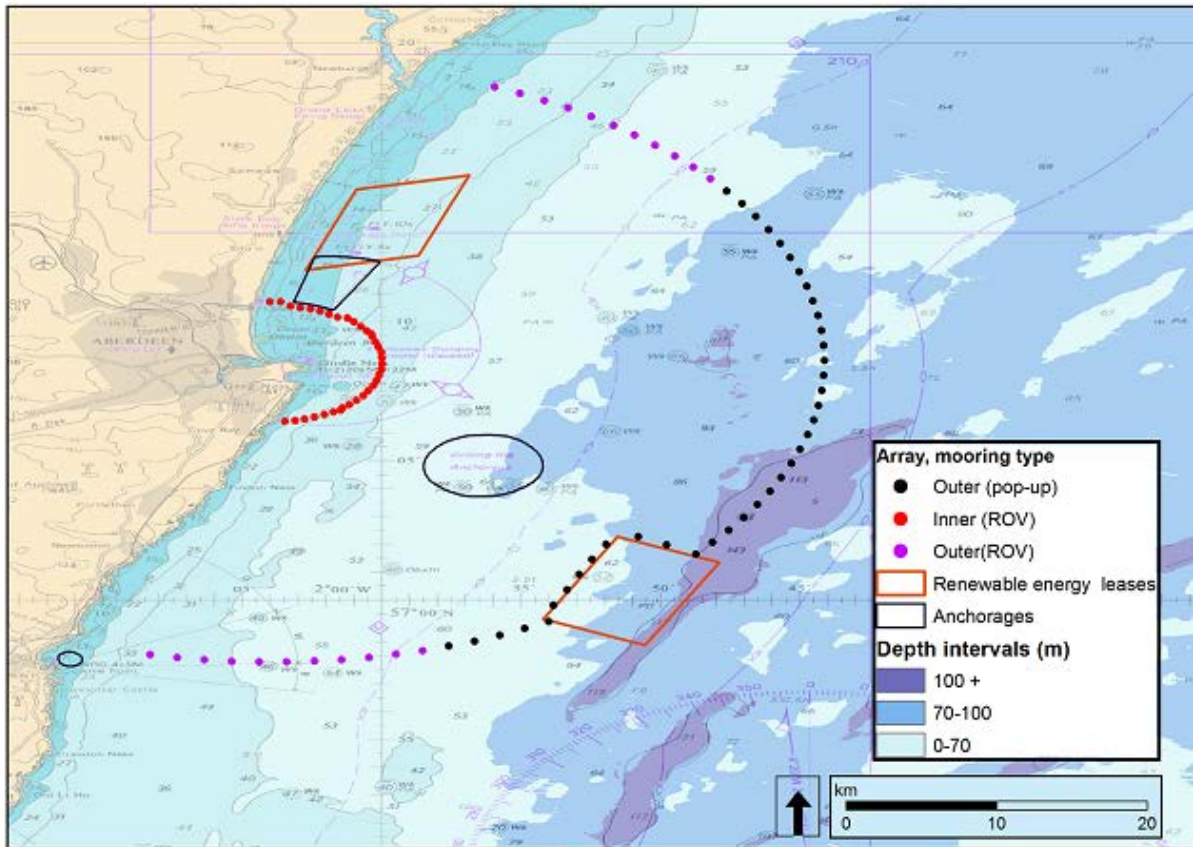


Figure 1: Locations of the Aberdeen Bay salmon detector moorings to be deployed during 0419A. A table of locations will be supplied separately. Locations marked in blue are the outer array; the inner array are marked in red.

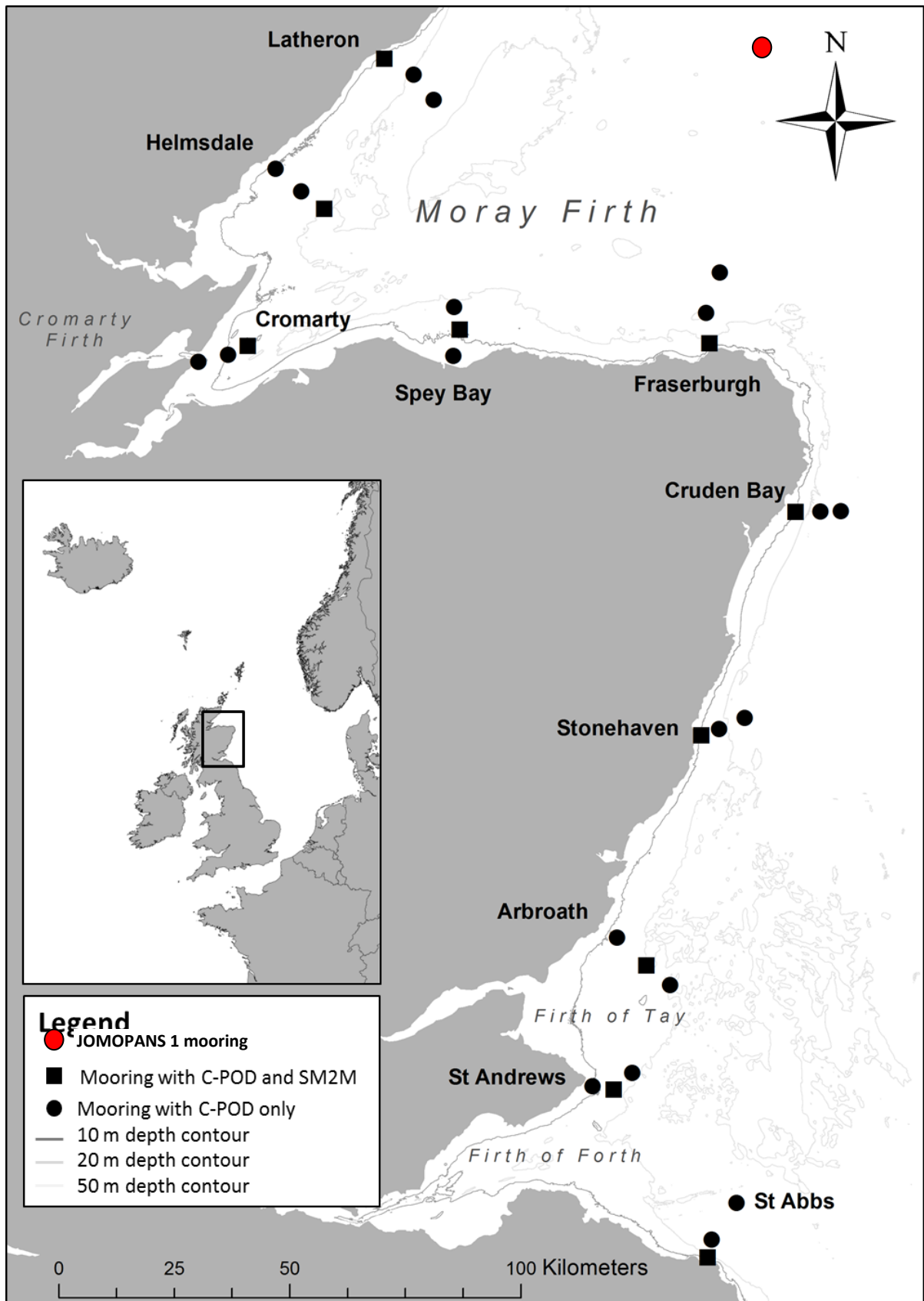


Figure 2: Locations of the ECOMMAS and JOMOPANS moorings deployed during the survey. Locations are detailed in Table 1 below.

Table 1: Co-ordinates of the ECOMMAS and JOMOPANS moorings deployed on this trip.

Location	Latitude	Longitude	Sound recorder?	Recovery method
JOMOPANS 1	58.57487	-2.119471	Y	AR
Fraserburgh 15	57.849141	-2.089825		AR
Fraserburgh 10	57.770775	-2.141328		AR
Fraserburgh 5	57.711263	-2.130103	Y	AR
Spey Bay 15	57.786933	-3.064216		ROV
Spey Bay 10	57.74146	-3.038821	Y	ROV
Spey Bay 5	57.69018	-3.062381		ROV
Cromarty 15	57.706651	-3.81065	Y	ROV
Cromarty 10	57.68915	-3.881785		ROV
Cromarty 5	57.6749	-3.98828		ROV
Helmsdale 15	57.975698	-3.535645	Y	ROV
Helmsdale 10	58.00505	-3.610723		ROV
Helmsdale 5	58.05338	-3.715275		ROV
Latheron 10	58.229323	-3.205925		ROV
Latheron 15	58.186686	-3.135715		ROV
Latheron 5	58.269341	-3.318166	Y	ROV
Cruden Bay 5	57.380185	-1.828393	Y	AR
Cruden Bay 10	57.380146	-1.738071		AR
Cruden Bay 15	57.376868	-1.61793		AR
Stonehaven 15	56.98059	-2.021736		AR
Stonehaven 10	56.959511	-2.113503		AR
Stonehaven 5	56.947156	-2.177253	Y	AR
Arbroath 5	56.554018	-2.483356		AR
Arbroath 10	56.499815	-2.37981	Y	AR
Arbroath 15	56.459636	-2.29853		AR
St Andrews 15	56.29004	-2.433171		AR
St Andrews 5	56.265265	-2.571761		AR
St Andrews 10	56.258365	-2.501598	Y	AR
St Abbs 15	56.033338	-2.075373		AR
St Abbs 10	55.963473	-2.161845		AR
St Abbs 5	55.92919	-2.177058	Y	AR

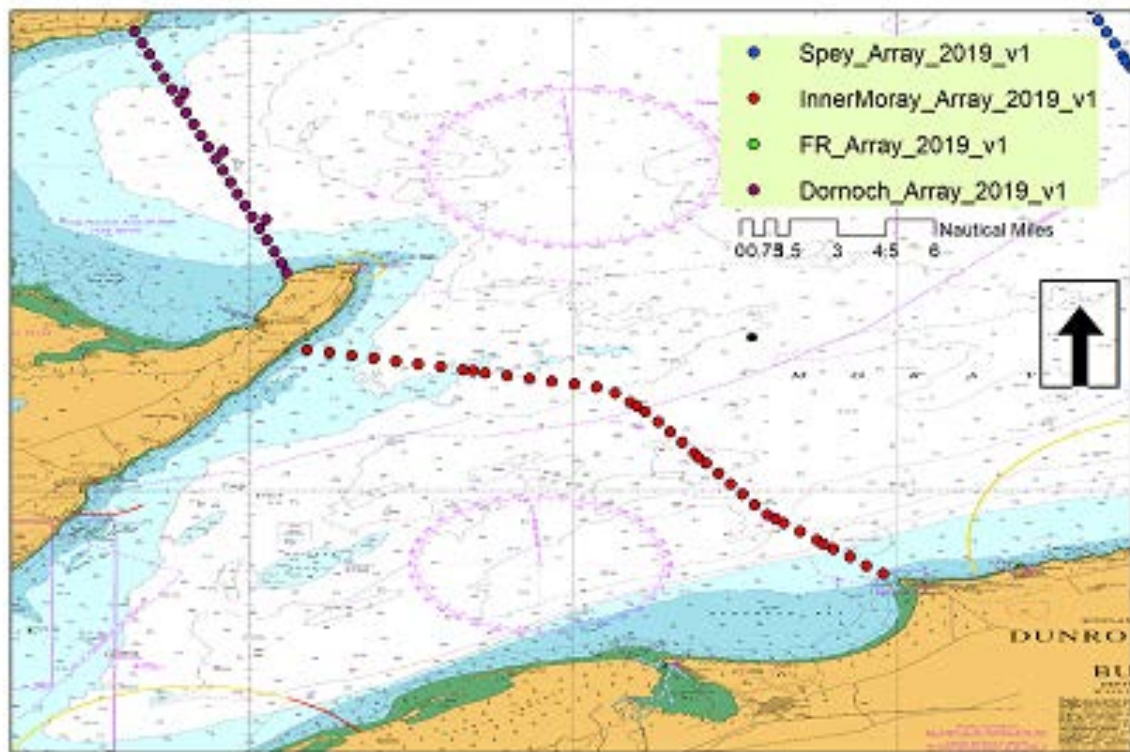


Figure 3: Locations of the AST salmon detector moorings to be deployed in the Moray Firth during 0419A.

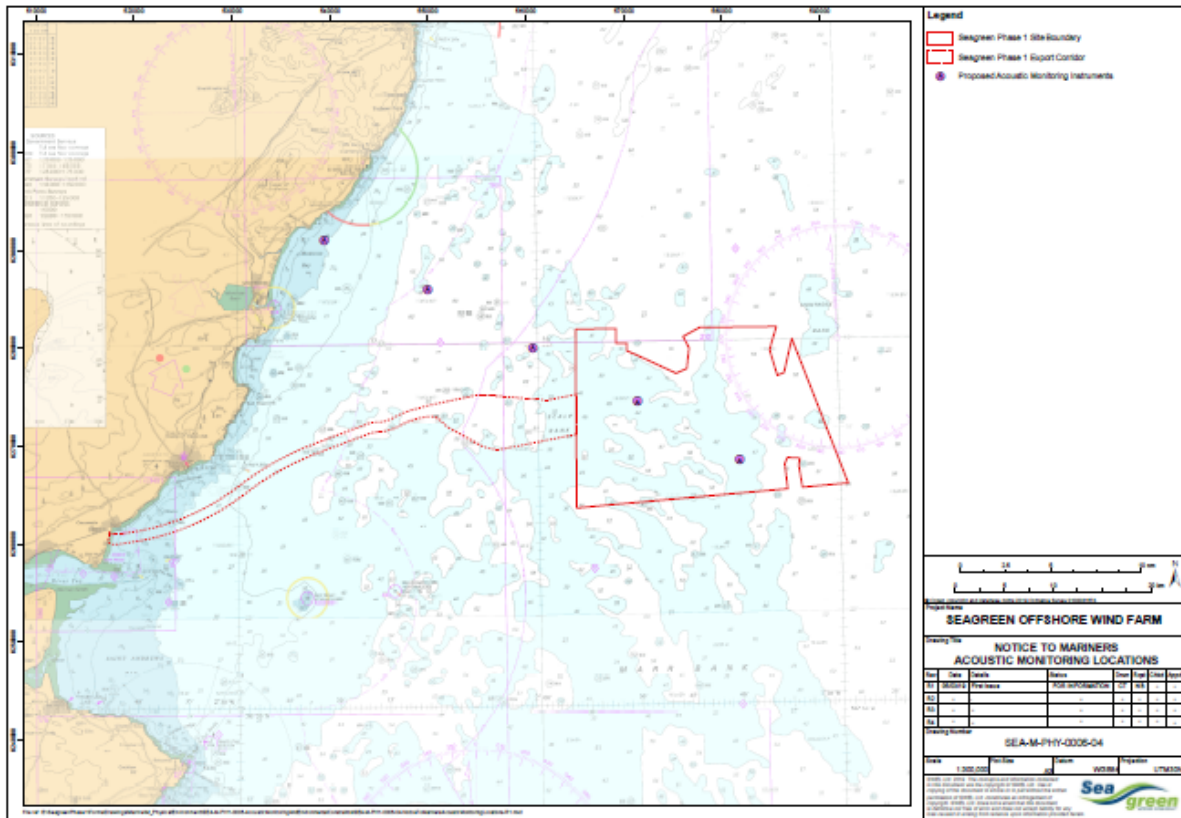


Figure 4: Locations of the 5 SSE Seagreen moorings to be deployed.