Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen.

MRV Alba na Mara

Survey 2019A

Programme

15-26 November 2019

Ports

Loading: Fraserburgh, 15 November 2019 **Unloading:** Leith, 26 November 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, 12 days

Gear: Surface and subsurface PAM moorings

Objectives:

To retrieve 24 subsurface moorings comprising acoustic release systems and the acoustic recording devices attached to them (24 C-POD and 8 Loggerhead/SM2M) as part of three marine mammal monitoring programmes (ECOMMAS, JOMOPANS & SEAGREEN).

To deploy 11 subsurface moorings comprising acoustic release systems and the acoustic recording devices attached to them (11 CPOD and 11 Loggerhead/SM2M) as part of four marine mammal monitoring programmes (ECOMMAS, JOMOPANS, SEAGREEN & NNG). See Table 1-4 and Figure 1-3.

Procedure:

Loading of all equipment will be carried out on 12 November when the previous survey (1919A) returns to Fraserburgh. Weather permitting, *Alba na Mara* will sail from Fraserburgh on the morning of 15 November and make for the first mooring position. The ultimate order in which the moorings are retrieved/deployed will be decided by the skipper in conjunction with the SIC, and dictated by the weather forecast.

It may be necessary for *Alba na Mara* to make a partial unloading of retrieved moorings and equipment to ensure enough available space on the vessel. If this is the case the vessel will visit the most suitable port depending on her location at the time.

Alba na Mara will dock in Leith on 26 November to unload and allow the scientific staff to disembark and return to Aberdeen.

Normal contacts will be maintained with the Marine Laboratory.

Submitted:

P Stainer 13 November 2019

Approved:

I Gibb

13 November 2019

Table 1: Geographic position of all 19 JOMOPANS & ECOMMAS moorings to be recovered.

Location	Latitude	Longitude	Sound recorder?
JOMOPANS 1	58.57487	-2.119471	Y
Fraserburgh 5	57.711263	-2.130103	
Fraserburgh 10	57.770775	-2.141328	
Fraserburgh 15	57.849141	-2.089825	
Cruden Bay 5	57.380185	-1.828393	Y
Cruden Bay 10	57.380146	-1.738071	
Cruden Bay 15	57.376868	-1.61793	
Stonehaven 15	56.98059	-2.021736	
Stonehaven 10	56.959511	-2.113503	
Stonehaven 5	56.947156	-2.177253	Y
Arbroath 5	56.554018	-2.483356	
Arbroath 10	56.499815	-2.37981	Υ
Arbroath 15	56.459636	-2.29853	
St Andrews 15	56.29004	-2.433171	
St Andrews 5	56.265265	-2.571761	
St Andrews 10	56.258365	-2.501598	Y
St Abbs 15	56.033338	-2.075373	
St Abbs 10	55.963473	-2.161845	
St Abbs 5	55.92919	-2.177058	Y

Table 2: Geographic position of 3 ECOMMAS and JOMOPANS moorings to be deployed during 2019A. All moorings are to be subsurface for either acoustic release or ROV recovery.

Location	Latitude	Longitude	
JOMOPANS 1	58.57487	-2.119471	
Helmsdale 15	57.975698	-3.535645	
Arbroath 10	56.499815	-2.37981	

Table 3: Geographic position of all 5 Seagreen moorings to be retrieved and deployed.

Location	Latitude	Longitude
Seagreen 1	56.762417	-2.354677
Seagreen 2	56.715833	-2.182717
Seagreen 3	56.66115	-2.0091
Seagreen 4	56.610017	-1.836017
Seagreen 5	56.554683	-1.667317

Table 4: Geographic position of all 4 NNG moorings to be deployed.

C-POD location	Co-ordinates (degrees, decimal		Co-ordinates (decimal degrees)	
	minutes)			
	Latitude	Longitude	Latitude	Longitude
NNG1	2° 19.162' W	56° 17.882' N	-2.319357	56.298024
NNG2	2° 15.226' W	56° 15.122' N	-2.25376	56.252025
NNG3	2° 10.001' W	56° 16.341' N	-2.166681	56.272344
NNG4	2° 5.426' W	56° 16.171' N	-2.090425	56.269518

Table 3: Geographic position of all 5 Seagreen moorings to be retrieved and deployed.

Figure 1: Geographic position of 19 ECOMMAS & JOMOPANS moorings to be retrieved in November 2019. Winter mooring to be deployed at Arbroath

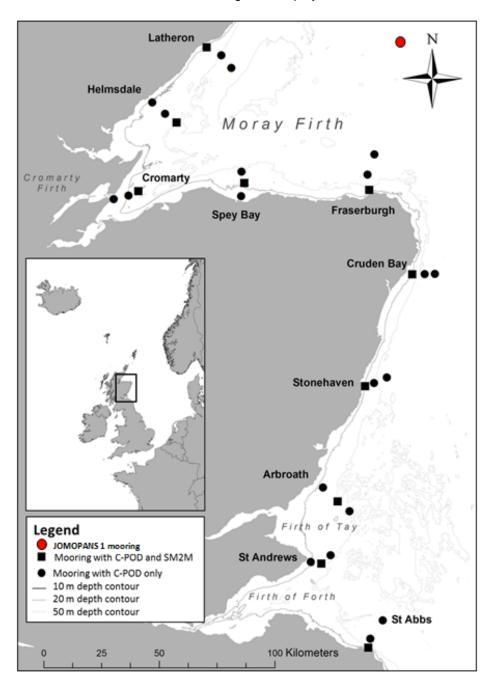


Figure 2: Locations of the 5 SSE Seagreen moorings to be retrieved and deployed.

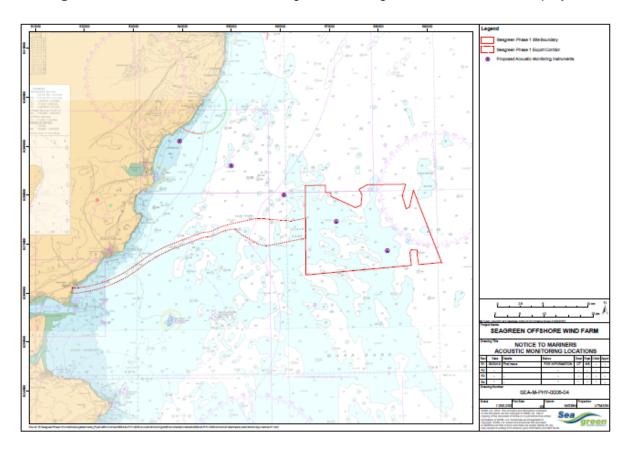


Figure 3: Locations of the 4 NNG moorings to be deployed.

