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

MRV Alba na Mara

Survey 2116A

### PROGRAMME

17-30 November 2016

#### Ports

Loading: Fraserburgh, 13 November 2016 Unloading: Leith, 30 November 2016

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.

### Personnel

P Stainer

- R Watret
- E Edwards

Project: 20231, 14 days

Gear: Surface and subsurface PAM moorings

### **Objectives:**

To retrieve a series of moorings comprising dhan buoys (seven surface marked moorings) or acoustic release systems (23 subsurface moorings) and the acoustic recording devices attached to them (30 C-POD and 10 SM2M/SM3M) as part of the east coast marine mammal monitoring programme (see Table 1 and Figure 1).

### Procedure:

Loading of all equipment will be carried out on 13 November when the previous survey (2016A) returns to Fraserburgh. *Alba na Mara* will sail from Fraserburgh on the morning of 17 November and make for the first mooring position. The ultimate order in which the moorings are retrieved will be decided in conjunction with the vessel master, but will be dictated by the weather forecast and the likely shelter that can be provided by the east coast.

Acoustically triggered moorings that may have malfunctioned but can be located by echosounder will be grappled for using the creeping hook attached to the trawl warp.

It may be necessary for *Alba na Mara* to make a partial unloading of retrieved moorings 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.

Additional range testing of acoustic salmon receivers will be carried out using a small hydrophone system and a tag in Aberdeen Bay.

Alba na Mara will dock in Leith by 30 November for unloading.

Normal contacts will be maintained with the Marine Laboratory.

Submitted: P Stainer 08 November 2016

Approved: I Gibb 10 November 2016

## Table 1

	Lat (dec	Long (dec	Water		
Location name	deg)	deg)	Depth	SM2M	Туре
Latheron 5	58.1868	-3.1359	70	Y	Sub-surface
Latheron 10	58.2294	-3.2061	63	-	Surface
Latheron 15	58.2693	-3.3180	32	-	Surface
Helmsdale 5	58.0536	-3.7146	28	-	Sub-surface
Helmsdale 10	58.0050	-3.6109	48	-	Surface
Helmsdale 15	57.9757	-3.5359	55	Y	Surface
Cromarty 5	57.6748	-3.9885	15	-	Sub-surface
Cromarty 10	57.6892	-3.8818	31	-	Sub-surface
Cromarty 15	57.7067	-3.8107	25	Y	Sub-surface
Spey Bay 5	57.6902	-3.0625	16	-	Sub-surface
Spey Bay 10	57.7415	-3.0388	28	Y	Sub-surface
Spey Bay 15	57.7870	-3.0643	40	-	Sub-surface
Fraserburgh 5	57.7113	-2.1301	45	Y	Sub-surface
Fraserburgh 10	57.7706	-2.1410	66	-	Sub-surface
Fraserburgh 15	57.8493	-2.0896	88	-	Sub-surface
Cruden Bay 5	57.3802	-1.8283	30	Y	Sub-surface
Cruden Bay 10	57.3802	-1.7381	77	-	Sub-surface
Cruden Bay 15	57.3773	-1.6180	86	-	Sub-surface
Stonehaven 5	56.9472	-2.1772	35	Y	Sub-surface
Stonehaven 10	56.9594	-2.1134	51	-	Surface
Stonehaven 15	56.9806	-2.0216	62	-	Surface
Arbroath 5	56.5541	-2.4833	41	-	Sub-surface
Arbroath 10	56.4998	-2.3800	90	Y	Sub-surface
Arbroath 15	56.4596	-2.2987	57	-	Sub-surface
St Andrews 5	56.2654	-2.5718	22	-	Sub-surface
St Andrews 10	56.2584	-2.5017	47	Y	Sub-surface
St Andrews 15	56.2899	-2.4330	52	-	Surface
St Abbs 5	55.9292	-2.1771	40	Y	Sub-surface
St Abbs 10	55.9635	-2.1619	71	-	Sub-surface
St Abbs 15	56.0333	-2.0755	70	-	Sub-surface

# Figure 1



Positions of all 30 moorings to be recovered during cruise 2116A.