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MV Shjandur

Survey 0618H second part

REPORT

30 - 31 January 2019, 25 February 2019.

Loading: Loch Spelvie, Isle of Mull 30 January 2019 & 25 February 2019

Boarding: Loch Spelvie, Isle of Mull 30 January 2019, 31 January 2019 & 25 February 2019

Unloading: Loch Spelvie, Isle of Mull 31 January 2019 & 25 February 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.

Personnel

J. Thorburn (St. Andrews Uni) SIC

Project: 3 days (return to port each day)

Gear

1 x VR100 + hydrophone

Servicing equipment for Vemco VR100 AR and rope canisters

Background and Objectives

The first part of 0618H deployed 10 acoustic receiver units within the Loch Sunart to the Sound of Jura Marine Protected Area July 2018. These units communicate with and record the presence of transmitter tags attached to flapper skate (*Dipturus intermedius*), the MPAs designation feature. The tags transmit a unique ID, allowing the identification of individual tagged skate, the receivers record the presence of the tag in the form of a date and time stamp along with the unique ID number. The main aim of this project is to see how long individual skate remain within the Loch Sunart to the Sound of Jura Marine Protected Area over a long period of time as this site is designated for the conservation of the Common Skate. The receivers are retrieved via acoustic release from a VR100 unit from a vessel and all equipment is recovered via rope held in a rope cannister with deployed moorings. When retrieved, the rope cannister and receiver should be inspected for signs of wear, worn parts should be replaced and the unit should be rearmed and redeployed at its original deployment location.

Specific survey objective is as follows:

1. Recover 10 Acoustic receivers (Vemco VR2AR) within the Loch Sunart to the Sound of Jura Marine Protected Area
2. Download Data
3. Redeploy at original deployment sites (Fig 1, table 1)

Narrative

Personnel and equipment loaded and unloaded at Loch Spelvie daily during survey.

The procedure used to download data and service each unit was as follows.

- 1) Steam to the station and establish communication with receiver.
- 2) Arm and release receiver which then floats to the surface for retrieval.
- 3) Use Dyneema connection rope to retrieve all ballast and rope canister.
- 4) Download data from receiver.
- 5) Inspect receiver and rope canister, undertake required servicing to enable re-deployment.
- 6) Re-deploy receiver at original deployment site. Station locations are shown in Figure 1 are listed in Table 1.

On 30 January, station 10 and station 9, were visited. In both cases, data was downloaded but the rope canister had parts that needed replacing so all equipment was kept on board for shore-based service.

On 31 January, station 5, station 7, and station 8, station 6 were retrieved, data downloaded, inspected and successfully redeployed.

On 25 February, station 4, station 1, station 2, and station 3 were retrieved, data downloaded, inspected and successfully redeployed. Receiver communication at station 2 was problematic as the unit had drifted 1km away. Communication and retrieval were successfully completed. Additional weight was added prior to redeployment

Acoustic receiver deployment.

In total, 8 Vemco VR2AR acoustic receivers were recovered and redeployed within the Loch Sunart to the Sound of Jura MPA (Fig 1, table 1) during the second half of 0618H. Two receivers were recovered and stored on land for further servicing work.

Submitted: James Thorburn 17 March 2019

Approved: P Boulcott 03 February 2020

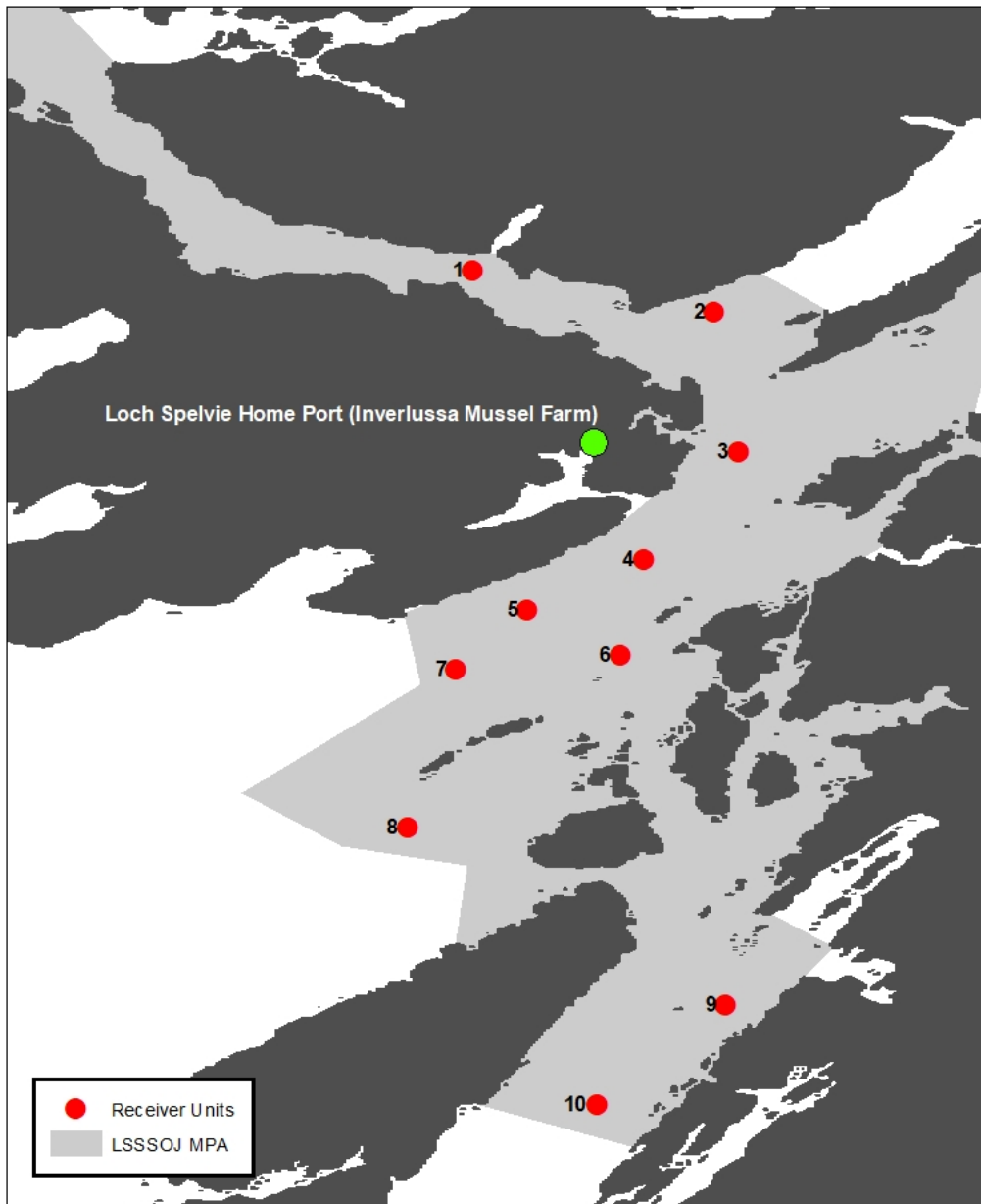


Figure 1: Location of Receiver units in the Loch Sunart to the Sound of Jura MPA as deployed by 0618H.

Table 1: Locations of deployed Receiver units during 0618H

Station number	receiver ID	Lat	Dec Lat	Long	Dec Long
1	546135	56° 31.32N	56.522	5° 47.22W	-5.787
2	546134	56° 29.82N	56.497	5° 38.4W	-5.64
3	546133	56° 24.683N	56.41138	5° 37.536W	-5.6256
4	546132	56° 20.76N	56.346	5° 40.98W	-5.683
5	546131	56° 18.91N	56.31517	5° 45.238W	-5.75397
6	546209	56° 17.263N	56.28772	5° 41.834W	-5.69723
7	546136	56° 16.74N	56.279	5° 47.82W	-5.797
8	546380	56° 10.98N	56.183	5° 49.595W	-5.82658
9	546173	56° 4.48N	56.07467	5° 37.977W	-5.63295
10	546171	56° 0.855N	56.01425	5° 42.666W	-5.7111