<u>Report of further locations for the distribution of the Stalked Sea squirt Styela clava in</u> <u>Mulroy Bay SAC</u>

May 2010

MERC Consultants undertook two days survey in Mulroy Bay in order to collect underwater imagery and detailed species lists for sensitive subtidal communities that had been the subject of earlier mapping studies carried out by MERC under contract to NPWS during 2008.

A previous study examined the distribution of the introduced ascidian *Styela clava* in Mulroy Bay SAC (see previous report by MERC, 2008). For the purposes of further investigating the distribution of *Styela clava*, the occurrence of the species was recorded during a total of 16 dives conducted at different locations in the main channel, Broad Water, Moross Channel and North Water within Mulroy Bay SAC.

Background

Styela clava is believed to be native to the southern hemisphere, the earliest records coming from Australia and New Zealand. It is thought that the species has been spread to Europe and thence to both coasts of North America through ballast water in shipping or ship fouling.

Styela clava was first recorded from Lagmore Bay on the east side of the North Water in Mulroy Bay SAC during early summer 2008.

Additional surveys carried out during 2008 on behalf of NPWS confirmed the presence of *S clava* in a number of locations in the North Water.

Methods and Results

A four-person dive team examined 16 sites in the main channel, North Water, Broad Water and Moross Channel on the 19th and 20th May 2010. Dive locations were selected on the basis that known communities of maerl and/or Zostera marina/ Limaria hians had been recorded previously (2008).

Dive site locations where S clava were recorded are as follows:

Northern Northwater 218594_442428 West side of Northwater 217856_441480 Moross Channel dive 218411_439637

Map 1 shows the distribution of *S clava* according to the 2008 survey combined with the additional records from 2010.

The most noteworthy new occurrence was in an area in the northern extremity of the North Water, adjacent to an aquaculture installation. In this are (Area 1 on attached map) *S clava* was recorded in relatively large numbers (estimated several hundred individuals), attached to hard substrate/debris and shells in various depths from 0.5 m to 5m. The seabed was characterized by mainly sediments, with occasional stones and rocky/bedrock protrusions, to which *S clava* was mainly attached. Native ascidian species were also prevalent on the

sediments including *Ascidia aspersa, Ascidia mentula and Clavelina lepidiformis.* The sediments supported *Z marina* (occasional/frequent) while macroalgal communities dominated on shallow hard substrates.

S clava was recorded in low numbers at two other sites – on the west side of the North Water adjacent to a *Z marina* bed and attached to hard substrate; and in the Moross Channel area, close to the entrance to the North Water.

It is noteworthy that *S clava* was not recorded out side of the North Water or Moross Channel during either 2008 or 2010 surveys. However it should be noted that most of the dive effort during 2010 has focused on sedimentary habitats, where *S clava* is considered less likely to occur.

Map 1 below shows the recorded distribution of *S clava* from both 2008 and 2010 dive observations.

Attached images are all taken at location No. 1 (2010).

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