

Survey of Mulroy Bay SAC for the Stalked Sea squirt *Styela clava* ()

MERC Consultants undertook a one-day survey of Mulroy Bay Special Area of Conservation during July 2008. The objective was to provide data on the occurrence of the invasive ascidian *Styela clava* in the North Water and Broad Water sections of the site, by conducting sub tidal sampling using scientific diving techniques.

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. On the 25th May, five specimens of *Styela clava* were located at a depth of about 15 meters during the course of a routine dive by scientific personnel from the Ulster Museum. Personnel who had been diving the site several times annually for in excess of 20 years made this first recording of the species in Mulroy Bay.

The record was confirmed as a new record for NW Ireland by Dan Minchin, *Styela clava* having previously only been recorded in Ireland from Fenit Harbour Co Kerry and from Cork Harbour.

Methods

A four-person dive team examined a number of sites in the North Water, Broad Water and one site in the channel linking Mulroy Bay with the sea (between Second and Third narrows) on the 25th June 2008.

A familiarisation dive was carried out at Lagmore Bay – site of the existing record for Mulroy Bay – in order to collect some specimen *Styela clava* and to familiarise personnel and assist in identification during dives at subsequent sites.

Further sites were identified as being most appropriate for survey on the basis that the ascidian most likely entered Mulroy Bay as a fouling organism attached to mobile floating structures/boats etc. that frequent Mulroy Bay and which are mostly associated with the extensive aquaculture industry. Accordingly, piers and jetties as well as floating structures and equipment moored close by and used by visiting vessels and the aquaculture sector were selected for survey.

Results

The following locations were surveyed by diving:

North Water:

Lagmore Bay (re-confirmed earlier record) close to Agharooney Point

East of Moross Point

Broad Water:

Woodquarter Pier

Milford Bakery

Carrowkeel Pier

Mulroy Channel

Millstone Bay, south of Second Narrows

Surveyed sites are shown in Figure 1.

At each location, a dive team examined fixed and floating structures including old mooring ropes and buoys for ascidians. Ascidians were present in abundance at most of the sites examined, however apart from the dive at Lagmore Bay – where in excess of 20 specimens were recorded at depths from 3 metres to 19 meters during the survey, *Styela clava* was recorded from just one further site in the North Water close to Moross Point. This site lies approximately 1 km south and west of the earlier records from Lagmore Bay and close to the entrance to the Moross Channel, which connects the North Water with the Broad Water. Several specimens were recorded (5 in total) from this site during the dive at depths between 3 meters and 14 meters. Specimens recorded were attached to firm substrate and tended to be solitary (the species is also commonly referred to as the Solitary squirt).

Two further records of *Styela clava* were made during unrelated subtidal surveys carried out by MERC Consultants in Mulroy Bay SAC during summer 2008. These records comprised individual specimens of *Styela clava* recorded during two dives at different locations in Moross Channel. These records are also present in Figure 1. These sites were close to Ross Point and in Doocarrick Bay.

No further records for *Styela clava* were made during ongoing survey work in Mulroy Bay, despite very extensive dive surveys during July and August 2008. The indications are that *Styela clava* may be restricted in its distribution to the North Water and Moross Channel as of August 2008.



Figure 1. Location of surveys for *Styela clava*, Mulroy Bay SAC
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Figure 3.



Figure 4.



Figure 2.



Figure 5.



Figure 6.

Figures 2-6 All *Styela clava*, Lagmore Bay, North Water, Mulroy Bay SAC June 2008.