



SKERRIES SEA SQUIRT SAFARI

June 2021



Skerries Sea Squirt Safari

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Author: Sally Stewart-Moore (Seasearch N.I. Co-ordinator)

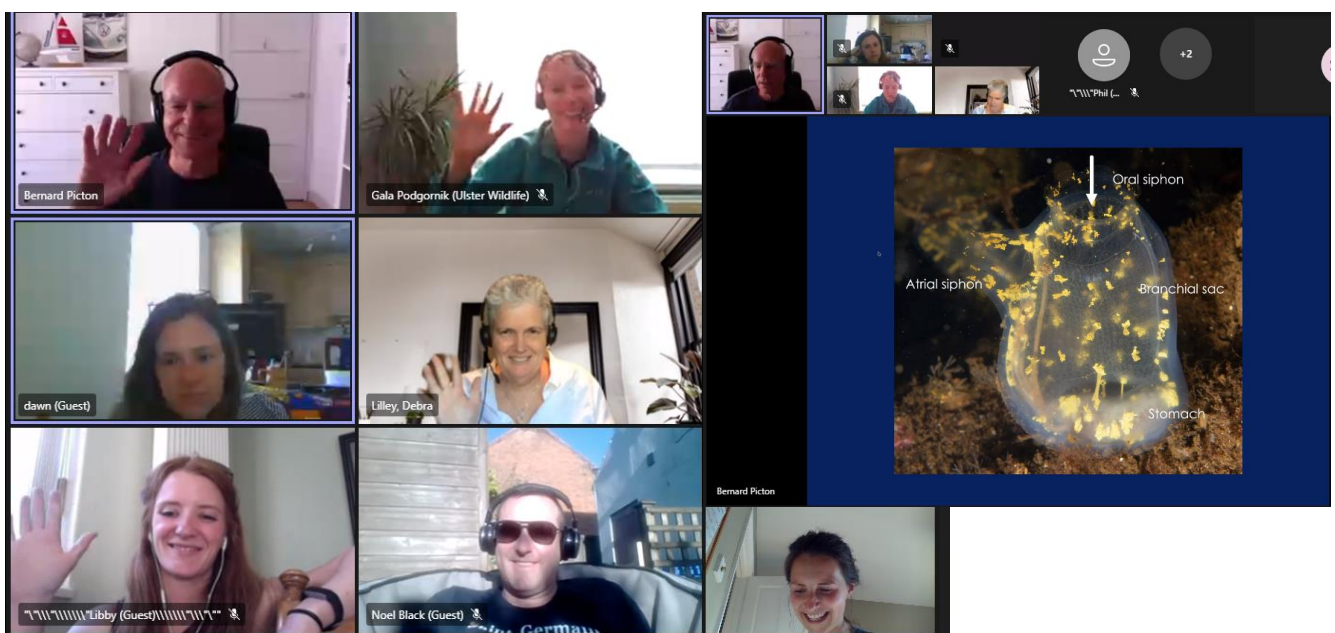
Survey team: Bernard Picton, Phil Wilkinson, Debra Lilley, Helena Zalewska, Darren Johnston, Noel Black, Libby Keatley, Jane Leslie, Donna Conroy, Roy Patterson, Sabahat Hasnain.

Background

Sea squirts can be the dominant life form in many habitats around the coast of Britain and Ireland and play an important ecological role as a water filterer, prey item for bottom dwelling fish and through providing shelter for smaller marine organisms. Non-native invasive sea squirt species can also cause significant ecological and economic threats when introduced outside of their native range. However, squirt species can be difficult to identify underwater and as a result are under recorded.

In 2019, funding was secured from the Sea Changers fund to run a weekend of diving off the Skerries (Portrush, County L'derry). As well as contributing to the existing species distribution database around Northern Ireland, a key objective of the Sea Squirt Safari was to improve identification skills amongst Seasearch divers and in doing so, spark interest and encourage future recording.

The Sea Squirt Safari was originally planned for 2020, but due to COVID this was postponed to June 2021. Co-author of the Seasearch Sea Squirts and Sponges guide, Bernard Picton, was drafted in for the weekend to share his expertise on squirts with the group and assist with compiling a final species list and photo catalogue. The Skerries were selected as a suitable site, with 36 species recorded here previously. Prior to the weekend, Bernard provided an online talk which covered squirt ecology, highlighted some key species to look out for and included tips for photographing squirts for identification purposes.



4 sites around the Skerries were explored and divers were simply tasked with looking out for sea squirts and taking photos for identification and verification later on. Divers convened in Portrush Yacht Club post-diving to fill out Seasearch forms, share images and help each other with ID. A Facebook album was created where divers posted all their squirts images and together identified and tagged the species captured.

Findings

Details of the dive sites explored and the complete species list and corresponding photos are listed below. For dive 4, buddy pairs were dropped in at different positions around Little Skerries and Winkle Island.

A total of 29 individual species, genera or species types/descriptions were recorded across the 6 areas explored by divers. 11 species recorded from the Skerries previously were not observed in June 2021, these are also listed in the table below (marked as orange).

Of the species recorded in June 2021, 25 had been recorded from the Skerries previously, while 5 were new observations from within the SAC. These were '[Aplidium caramel 2-spot](#)', '[Aplidium pallidum](#)', '[Aplidium strawberry](#)', '[Aplidium white](#)' and '[Botrylloides sp.](#)'. The species described as '[Aplidium caramel 2-spot](#)' features in the Seasearch Sea Squirts and Sponges guide, but this may be the first official record of this species for Northern Ireland! Other species of interest recorded included the NI Priority Species '[Pyura microsmus](#)' and '[Pycnoclavella aurilucens](#)'. *P. aurilucens* has only been recorded 6 times previously in NI, and only from the Skerries, which are therefore considered to be a stronghold. This species has a typically southerly distribution in the UK and Ireland (similar to '[Synoicum incrustatum](#)') and therefore might be expected to spread further north as sea temperature rises. Further notes from contributors to this report are included alongside the species images.

Dive	Date	Dive Site	Dive NI Link	Position (DDM)	Divers
1	05/06/21	Large Skerries NE	https://bit.ly/372oH7Z	55°13.475N 6°37.551W	11
2	05/06/21	Island Bartan Bay	https://bit.ly/3x1CPsE	55°13.414N 6°37.991W	11
3	06/06/21	The Otter Isles	https://bit.ly/2WqSftW	55°13.232N 6°39.327W	12
4a	06/06/21	Winkle island		55°13.399N 6°38.686W	7
4b	06/06/21	Little Skerries South	https://bit.ly/2Wk55df	Start: 55°13.224N 6°38.397W End: 55°13.281N 6°36.727W	2
4c	06/06/21	Little Skerries South	https://bit.ly/2Wk55df	Start: 55°13.224N 6°38.397W End: 55°13.369N 6°39.051W	3

Skerries Sea Squirts Species list from June 2021 and pre-2021

Scientific Name	pre-2021	June 2021
<i>Aplidium caramel 2-spot</i>		x
<i>Aplidium glabrum</i>	x	
<i>Aplidium nordmanni</i>	x	x
<i>Aplidium pallidum</i>		x
<i>Aplidium punctum</i>	x	x
<i>Aplidium strawberry</i>		x
<i>Aplidium turbinatum</i>	x	x
<i>Aplidium white</i>		x
<i>Ascidia conchilega</i>	x	
<i>Ascidia mentula</i>	x	x
<i>Ascidia virginea</i>	x	x
<i>Asciella aspersa</i>		x
<i>Asciella scabra</i>	x	x
<i>Botrylloides sp.</i>		x
<i>Botryllus schlosseri</i>	x	x
<i>Ciona intestinalis</i>	x	x
<i>Clavelina lepadiformis</i>	x	x
<i>Corella parallelogramma</i>	x	
<i>Dendrodoa grossularia</i>	x	x
<i>Didemnum maculosum var. dentata</i>	x	x
<i>Diplosoma listerianum</i>	x	
<i>Distaplia rosea</i>	x	x
<i>Lissoclinum perforatum</i>	x	x
<i>Molgula citrina</i>	x	
<i>Molgula complanata</i>	x	x
<i>Molgula manhattensis</i>	x	
<i>Morchellium argus</i>	x	x
<i>Perophora listeri</i>	x	
<i>Polycarpa fibrosa</i>	x	x
<i>Polycarpa gracilis</i>	x	
<i>Polycarpa pomaria</i>	x	x
<i>Polycarpa scuba</i>	x	x
<i>Polyclinum aurantium</i>	x	x
<i>Pycnoclavella aurilucens</i>	x	x
<i>Pycnoclavella stolonialis</i>	x	
<i>Pyura microsomus</i>	x	x
<i>Pyura squamulosa</i>	x	
<i>Sand encrusted polyclinid</i>	x	x
<i>Synoicum incrustatum</i>	x	x
<i>Synoicum pulmonaria</i>	x	
<i>Trididemnum cereum</i>	x	x

■ Recorded pre-2021 only

■ Recorded 2021 only

■ Recorded pre-2021 & again in 2021

Aplidium "caramel 2-spot"



Observed elsewhere in the UK but sea squirt experts still unsure about what species this is. This is probably the first official Northern Ireland record (Bernard Picton, June 2021).

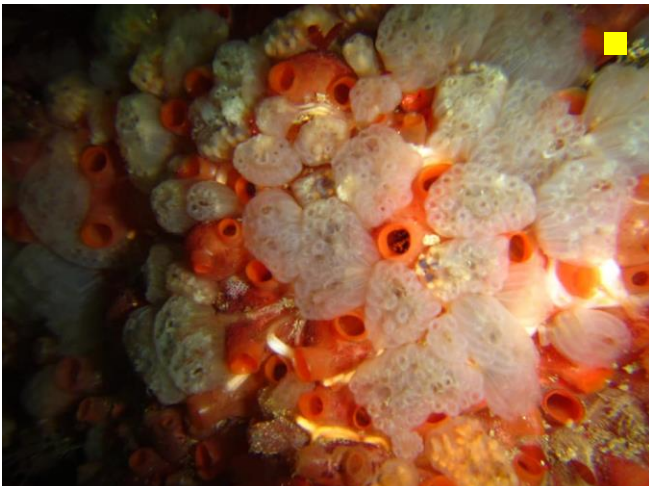
Aplidium nordmanni



180 records from N.I. of 713 records from across UK and Ireland. Two colour forms observed (white and red). Previously recorded from Skerries.



Aplidium pallidum



First record from the Skerries and 11th record from whole of Northern Ireland (of a total of 166 records for the UK and Ireland).

Aplidium punctum



362 records from N.I. of 3634 records from across UK and Ireland. Previously recorded from Skerries.

Aplidium "strawberry"



This species is currently undescribed. First record from north coast, previously recognised from Rathlin Island and Strangford Lough.

Aplidium turbinatum



254 records from N.I. of 1550 records from across UK and Ireland. Previously recorded from Skerries.

Aplidium "white"



Not officially recorded in Northern Ireland previously but samples taken recently from Skerries and other sites (Bernard Picton, June 2021)

Ascidia mentula



547 records from N.I. of 5737 records from across UK and Ireland. Previously recorded from Skerries.

Ascidia virginea



179 records from N.I. of 1966 records from across UK and Ireland. Previously recorded from Skerries.

Ascidella scabra



377 records from N.I. of 2354 records from across UK and Ireland. Previously recorded from Skerries.

Botrylloides sp.



Looks as though it is regressing somewhat so that the zooids are very indistinct. You can make out some zooids running in wavy lines in the top left quarter.... Botrylloides zooids run in chains, often called 'zipper' as they form double rows that snake around. (Sarah Bowen, June 2021). 400 records from N.I. of 3234 records from across UK and Ireland. Previously recorded from Skerries.

Botryllus schlosseri



Botryllus schlosseri is the only squirt that has star-shaped or flower-shaped patterning to the zooids. 797 records from N.I. of 9776 records from across UK and Ireland. Previously recorded from Skerries.

Ciona intestinalis



334 records from N.I. of 5808 records from across UK and Ireland. Previously recorded from Skerries.

Clavelina lepadiformis



921 records from N.I. of 10,264 records from across UK and Ireland. Previously recorded from Skerries.

Dendrodoa grossularia



915 records from N.I. of 8767 records from across UK and Ireland. Previously recorded from Skerries.

Didemnum maculosum var. *dentata*



As long as you can see that these are always in small, discrete patches and never joined together as a larger sheet, then you can be certain this is *D. maculosum* v. *dentata*. They can often be seen scattered over the reef in quite large quantities (Sarah Bowan, June 2021). 152 records from N.I. of 1899 records from across UK and Ireland. Previously recorded from Skerries.

Distaplia rosea



81 records from N.I. of 513 records from across UK and Ireland. Previously recorded from Skerries.

Lissoclinum perforatum



123 records from N.I. of 2125 records from across UK and Ireland. Previously recorded from Skerries.

Molgula complanata



22 records from N.I. of 168 records from across UK and Ireland. Previously recorded from Skerries.

Morchellium argus



285 records from N.I. of 3865 records from across UK and Ireland. Previously recorded from Skerries.

Polycarpa pomaria



289 records from N.I. of 1212 records from across UK and Ireland. Previously recorded from Skerries.

Polycarpa scuba (possibly *P. errans*)



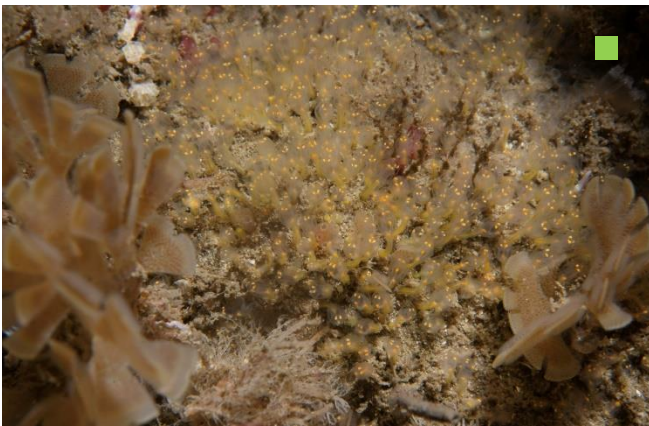
We call these *Polycarpa scuba* but they could be *P. errans* or *P. tenera* (Bernard Picton). 199 records from N.I. of 1316 records from across UK and Ireland. Previously recorded from Skerries.

Polyclinum aurantium



322 records from N.I. of 1459 records from across UK and Ireland. Previously recorded from Skerries.

Pycnoclavella aurilucens



6 records from N.I. of 713 records from across UK and Ireland. All 6 N.I. records are from the Skerries, this being the 7th record. This species has a southerly distribution in the UK and Ireland, with most records from the SW coasts.

Pyura microcosmus



34 records from N.I. of 631 records from across UK and Ireland. Previously recorded from Skerries.

Polycarpa fibrosa



59 records from N.I. of 282 records from across UK and Ireland. Previously recorded from Skerries, N.I. The north coast is a possible stronghold for this species?

Sand encrusted polychaetid



Although definitive identification can be made by examination of the internal anatomy, more work is needed to reliably match field characteristics to individual species. A number of images of sand encrusted polychaetids showing varying physical characteristics were captured during this survey. Only *Polychaeta aurantium* and *Synochium incrustatum* have been recorded at species level.

Synochium incrustatum

37 records from N.I. of 193 records from across UK and Ireland. Majority of N.I. records are recorded from the Skerries and north coast. This species appears to have a south western distribution, although may be under-recorded.



Trididemnum cereum

18 records from N.I. of 269 records from across UK and Ireland. Previously recorded from Skerries.

