



Annual Report 2022

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March 2023







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About Seasearch

The aim of Seasearch Northern Ireland (NI) is to gather information on seabed habitats and associated marine wildlife in Britain and Ireland through the participation of volunteer recreational divers and snorkellers. The scheme is coordinated by the Marine Conservation Society (MCS) and organised regionally by a number of coordinators. As well as recording marine life and habitats, volunteers record litter and other anthropogenic impacts. The objectives of Seasearch NI are:

- To encourage the participation of volunteer recreational divers and snorkellers in marine conservation through gathering data, particularly for areas where little data exists or where there is a conservation need.
- To provide training in recording skills to enable volunteer recreational divers and snorkellers to participate in Seasearch.
- To make quality assured Seasearch data available to partner organizations and the general public.
- To raise public awareness of the diversity of local marine life and habitats through the dissemination of information gathered and the identification of issues arising from it.

Through training and organised dives, Seasearch recreational scuba divers, free divers and snorkellers are able to survey large areas of the seabed for which species and habitat information may not be otherwise available. All Seasearch NI data is held by the local environmental records centre, CEDaR (www.nmni.com/cedar) and the Marine Conservation Society and is made available to view and download on the NBN Atlas NI (https://northernireland.nbnatlas.org/)

2022 in a seashell

This year brought a lot of changes to NI's Seasearch group. New members joined through an Observer training, some of our existing volunteers levelled up their skills by completing the Surveyor training and we sadly had to say goodbye to Sally Chamberlain, who coordinated the team since 2017. Gala Podgornik and Libby Keatley took over from Sally, combining their efforts on the ground (Libby) and behind the scenes (Gala). As if to add more changes to the mix, Gala moved with her family to Vancouver, Canada, doing her part for the Seasearch NI team from 'across the pond'.

It appears that 2022 bore fewer records across all the Seasearch regions and countries involved. . It was no different in NI. A total of 67 forms were submitted, which is a significant drop since 2021. On the bright side, 13 participants were trained as Observers in May and 4 as Surveyors in August, extending the Seasearch NI family. In summary:

We ran a total of 16 events:

- 1 Seasearch Observer course
- 1 Surveyor course (online)
- 1 talk by Sussex Wildlife Trust 'Help Our Kelp' (online)
- 1 talk by Healthy Seas 'A journey from Waste to Wear'
- 1 Social evening in Belfast
- 1 Christmas dinner in Portaferry
- 4 shore dives
- 6 boat dives

We trained:

- 13 new Seasearch Observers with 1 completing their qualification in 2022
- 4 new Seasearch Surveyors

We collected:

67 forms

A BIG thanks goes to:

- The Seasearch NI volunteers scuba divers, freedivers and snorkellers. Our collective understanding of Northern Ireland's marine environment is so much richer with your contribution!
- The <u>Centre for Environmental Data and Recording</u> (CEDaR) for helping us develop a
 monitoring programme with the Environmental Recorders' Group fund and for promoting
 SeasearchNI's contribution on the <u>DiveNI</u> website.
- Aquaholics and <u>DV Diving</u> for being so accommodating, despite a number of last-minute cancellations.
- The <u>Ballyholme Yacht Club</u> who hosted the Observer training in May.
- The Marine Conservation Society who continues to facilitate Seasearch across the UK and Ireland.

Events 2022

The event calendar included 7 shore dives (2 cancelled due to bad weather, 1 due to lack of interest), 8 subsidised boat dives (2 cancelled due to lack of interest), a Surveyor training, an Observer training and 2 talks – 1 online and 1 in person (**table 1** below). There were 2 dive sites per each boat day.

The following details can be seen in table 1 below:

- Event dates
- Event details (location, boat charter/partner organisation)
- Type of event (Monitoring site(s) intended for annual revisit through the Environmental Recorders' Group grant by CEDaR; Discovery site(s) – sites of specific interest for habitats or species; Training – Observer and Surveyor trainings; Social – talks and team building events)
- Number of participants per event and their respective Seasearch qualifications
- Number of Observer and Surveyor forms submitted per dive site
- Percentage of forms returned to Seasearch, following official Seasearch events (calculated as 1 per person)

Table 1 – Event statistics. Events highlighted in red were cancelled.

Date		Event	Туре	No. participants	No. OBS Forms	No. SUR Forms	% Forms returned (1 per person)
07 N 2022	Лау	Observer course & qualifying Observer training dive at Ballyholme Yacht Club	Training	14 participants, 7 divers (2 freedivers, 1 scuba diver, 4 snorkellers)	3 per site		48.86
15 N 2022	Лау	2 Boat dives at Maidens with Aquaholics (Russel Rock & Highland Rock)	Monitoring site(s)	12 scuba divers (4 qualified Surveyors, 1 qualified Observer, 7 trainee Observers)	2 per site	1 per site	25
11 Ju 2022	une	Seasearch NI social at Sunflower bar, Belfast ('Ghost net' talk & marine pub quiz)	Social	11 participants (8 trainee Observers, 3 qualified Observers)			
12 Ju 2022	une	Shore dive at Limestone Reef, Ballintoy	Exploring site	Bad weather			
26 Ju 2022	une	Shore dive at Glenarm	Monitoring site	Bad weather			

	seagrass bed					
	324 <u>5</u> .433 bea					
17 July 2022	Shore dive at Ballyhenry seagrass bed, Portaferry & Inner Lees dive (SS Empire Tana)	Monitoring site	3 Observers (1 qualified Observer, 2 trainee Observers)?	0 per site	1 per site	33.33
31 July 2022	2 Boat dives at Portstewart with Aquaholics (Large Skerries & Foul Grounds)	Exploring site (Elasmobranchs)	12 scuba divers (2 qualified Surveyors, 1 qualified Observer, 9 trainee Observers)	4 per site	1 per site	41.67
26-27 August 2022	Surveyor course online	Training	4 participants from NI group			
21 August 2022	Cross-border Marine Bioblitz with Ulster Wildlife at Greenore, Carlingford Lough	Exploring site	3 participants (1 qualified Surveyor, 1 trainee Surveyor, 1 trainee Observer)	2 per site		33.33
28 August 2022	Shore dive at Glenarm seagrass bed (qualifying Surveyor training dive)	Monitoring site(s)	5 (1 qualified Surveyor, 3 trainee Surveyors, 1 trainee Observer)	1 per site	4 per site	100
18 September 2022	2 Boat dives at Ballywalter	Exploring site (Elasmobranchs)	Insufficient interest (7/12 spaces filled)			
28 September 2022	Help Our Kelp' talk by Sussex Wildlife Trust & internal photo ID session	Social	12 (1 qualified Surveyor, 3 qualified Observers, 8 trainee Observers)			
22 October 2022	2 Boat dives with Aquaholics (West Maidens & Outer Glenarm seagrass bed)	Monitoring site(s)	9 (2 qualified Surveyor, 1 trainee Surveyor, 6 trainee Observers)	1 per site	1 per site	22.22

09	Shore dive at	Monitoring	No interest		
November	Kearney	site(s)			
2022	seagrass bed				
10	Christmas	Social	5 participants		
December	dinner at		(note: strong		
2022	Portaferry		showers on the		
	Hotel		day)		

Figure 1 – Event Calendar for Seasearch NI 2022. Some alterations occurred, compared to table 1.



Event Calendar 2022

Date(s)	Day	Event	
07/05/2022	Saturday	Observer Course at Ballyholme Yacht Club	
05/15/2022	Sunday	2 Boat Dives @Maidens with Aquaholics	
11/06/2022	Saturday	Seasearch Social @Sunflower bar, Belfast	
12/06/2022	Sunday	Shore Dive @Limestone Reef, Ballintoy	
26/06/2022	Sunday	ShoreDive @Glenarm seagrass bed	
09/07 - 10/07	Weekend	Surveyor Course @Waterville, Co. Kerry	
17/07/2022	Sunday	ShoreDive @Ballyhenry seagrass bed, Portaferry + Inner Lees dive	
31/07/2022	Sunday	2 Boat Dives @Portstewart + Sustainable Seafood talk @Aquaholics premises	
21/08/2022	Sunday	Ulster Wildlife X-border Marine Bioblitz @Rostrevor	
08/08/2022	Sunday	ShoreDive @Waterfoot (Red Bay) seagrass bed	
11/09/2022	Sunday	ShoreDive @Kearney seagrass bed	
18/09/2022	Sunday	2 Boat Dives @Ballywalter with DV diving	







Training

Two training courses were held for the Northern Irish volunteers in 2022 – an Observer course in person at the Ballyholme Yacht Club, Bangor and an online Surveyor course, followed by a Surveyor level training dive the day after.

Seasearch NI volunteers were also invited to Ulster Wildlife's online *ShoreNI training* (intertidal citizen science programme) and *Sustainable Seafood* talks. Around 10 Seasearch NI volunteers have completed the ShoreNI training and 6 attended the talks.

Ballyholme Yacht Club - 7th May 2022

This Observer course was held jointly by two Seasearch tutors - Gala Podgornik (Seasearch NI Coordinator) and Sally Chamberlain (former Seasearch NI Coordinator), both marine biologists by profession.

Thirteen out of fourteen registered participants took the Observer course that was held in person, at the Ballyholme Yacht Club premises, in partnership with the club. The participants included:

- 2 certified freedivers
- 5 certified scuba divers
- 4 snorkellers
- 2 staff members from the Department of Agriculture, Environment and Rural Affairs (DAERA)

11 participants were trained in their own time, while 2 participants attended the Seasearch taxonomy training as part of their job with DAERA's marine team.

Following the in-class workshop, 7 participants took their first Seasearch plunge at the <u>Ballyholme</u> <u>Grid</u> dive site. Two more scuba divers were hoping to join the dive, however one of the buddy pair was not feeling well, so it was decided that they would not participate in the water activity on that day. The two freedivers, 4 snorkellers and 1 scuba diver (paired with an existing Seasearch volunteer and scuba instructor) completed their first Seasearch dive.

By the end of 2022, 5 of the Observer trainees returned survey forms, with one freediver completing her Observer qualification by returning 2 survey forms from an official Seasearch dive and another 3 in her own time. Two more trainees were short a dive or two and will likely qualify in 2023.

Since the COVID-19 lockdowns, it appears that freediving and snorkelling have risen in popularity, as have most other water sports. The Seasearch Observer training is adapted to serve all types of divers, as long as the activity is clearly stated on the top of the form (e.g. 'Freediving').

Of interesting species, a lesser spotted catshark (Scyliorhinus canicula) was seen by a freediver, which was their first Elasmobranch sighting and certainly made their day!

Surveyor training - 26th – 28th August 2022

This course was organised by ML Anderson (Seasearch Administrator) and Charlotte Bolton (National Seasearch Coordinator and tutor) and held online.

There were 5 participants in this training in total, 4 from the Seasearch NI and 1 from the Seasearch Ireland volunteer team.

Each regional Seasearch team organised a Surveyor dive event in their area, with NI's dive event taking place in Glenarm, on a seagrass bed on the 28th August. An experienced and qualified

Surveyor lead a group of 2 (1 Surveyor trainee, 1 Observer trainee), while another 2 Surveyor trainees dove as a buddy pair. Libby Keatley (Seasearch NI Coordinator) acted as a marshal on this dive event and completed her first Surveyor dive with an experienced and qualified Surveyor the week after.

Two of four NI Surveyors are on track to complete their Surveyor qualification in 2023, closely followed by the remaining two.

Seasearch Surveys & Species Highlights

To give readers a better idea of the sites surveyed, we have included links to <u>DiveNI</u> – an online resource made specifically for scuba divers, freedivers and snorkellers.

Shore dives

Ballyholme Grid – 7th May 2022

Purpose of dive – Training: Newly trained Observer divers, freedivers and snorkellers conducted their first survey underwater.

About the site: The Grid

Species Highlights: A lesser spotted catshark (Scyliorhinus canicula) made an appearance and, though not a rare species, it is always exciting to see!

Ballyhenry Seagrass Bed & S.S. Empire Tana 'Inner Lees' - 17th July 2022

Purpose of dive – Monitoring: Volunteers surveyed the local seagrass bed to familiarise themselves with its condition, in order to start monitoring it annually. Given the proximity to one of the most interesting dive sites in Northern Ireland, the volunteered surveyed a popular wreck afterwards – S.S. Empire Tana, also known as 'Inner Lees' amongst divers.

About the site: Ballyhenry Bay Seagrass & S.S. Empire Tana 'Inner Lees'

Species Highlights: A small snail (Lacuna vincta) is frequently seen living on the eelgrass (Zostera marina) shoots; the rare Nudibranch Hancockia uncinata was spotted on the wreck.





Greenore – 21st August 2022

Purpose of dive - Exploring: This dive was part of the Cross-border Marine Bioblitz, organised by Ulster Wildlife (NI) and the National Biodiversity Data Centre (Ireland).

About the site: Greenore Shore

Species Highlights: Invasive sea squirt Perophora japonica, sand sea star Astropecten irregularis (photo credit Phil Wilkinson)



Coastal Glenarm Seagrass Bed - 28th August 2022

Purpose of dive – Training/Monitoring: Newly trained Surveyor volunteers, joined by an experienced Surveyor and a keen Observer trainee, surveyed the seagrass bed to familiarise themselves with its condition, in order to start monitoring it annually.

About the site: Glenarm Bay Seagrass

Species Highlights: Moon snail (Euspira sp., image A), stalked jellyfish (Calvadosia campanulata,

image B) – a priority species for Northern Ireland





Boat-dives

All completed boat dives this year were hosted by Aquaholics, who have been most supportive with our schedule, dive site requests and invoicing process.

Highland Rock & Russel Rock (Maidens) - 15th May 2022

Purpose of dive – Monitoring: These two dives were subsidised by 50% by Ulster Wildlife, as part of their Blue Carbon project. The focus of the dives was the maximum depth of brown and red seaweeds, as suggested by Bernard Picton. The Maidens are of particular conservation interest due to their animal turf dominated boulder slopes. A few species highlights can be seen below.

About the site: Highlandman (Highland Rock) and Russell's Rock, right by the S.S. Housatonic wreck

Two of our volunteers, Jonny Hall and Andrew Elliott, completed their 100th scuba dive that day! Here's to many more to come!

Figure 2 – Jonny and Andrew posing underwater.





Species Highlights: Priority species sponges -Hymedesmia rathlinia, Spongionella pulchella, Axinella damicornis (image A - first records for site); Lissodendoryx jenjonesae (image B); Anemone Hormathia coronata (image C); High numbers of Tubularia indivisa, image E, and various Nudibranchs (Coryphella chriskaugei, image D)









Large Skerries & Foul Grounds (Portstewart) - 31st July 2022

Purpose of dive – *Exploring:* These two dive sites were of exploratory nature, with a look out for Elasmobranch species, skates (*Rajidae*) in particular, due to the large number of egg cases found along the North Coast of Northern Ireland. Egg cases were recorded since 2018 by Ulster Wildlife's Sea Deep citizen science project.

About the site: Large Skerries SW Wall & Foul Grounds

Species Highlights: A thornback ray (actually a skate - Raja clavata priority species, image A) was indeed spotted by one of our divers! Other interesting records include a curled octopus (Eledone cirrhosa, image B) and a spiny squat lobster (Galathea strigosa, image C)







West Maidens & Outer Glenarm Seagrass (Glenarm) - 22nd October 2022

Purpose of dive – Monitoring: These two dives were part of the CEDaR's Environmental Recorders' Group funding that we received, to help us build a monitoring strategy for areas of conservation interest.

The seagrass bed in Glenarm, as originally discovered by Seasearch volunteers in 2017, extends beyond swimming distance from the shore and can only be accessed by boat.

About the site: Old Lighthouse (West Maiden) & the outer Glenarm seagrass bed

Species Highlights: West Maiden - Sponges and hydroids were very diverse at the Maidens site, including two priority species Lissondendoryx jenjonesae, Spongionella pulchella; Hydroids priority species Diaphasia alata, image A). Polyplumaria flabellata, image B) and Lytocarpia myriophyllum; squat lobster Munida rugosa — another priority species; football sea squirt (Diazona violacea, image C; only previously recorded around Rathlin Island); Glenarm Seagrass - stalked jellyfish (Calvadosia







campanulata) – a priority species. The sponge Axinella damicornis has only previously been recorded around Rathlin Island. Another rare (or possibly under-recorded?) sponge recorded at the Maidens on this survey was Sphaerotylus renoufi; there is only a single record of this species on the NBN Atlas at the time of writing.

Recording

A total of 67 survey forms were received in 2022, of which 52 were **Observer level forms** and the remaining 15 were **Surveyor level forms**. If we count volunteer effort in hours needed for completing these forms, with an average of 2h per form, it amounts to a staggering 138h of work! This number does not take into account the volunteer effort for the journey to/from dive site, the comfortable processes of putting gear on/taking gear off, rinsing gear nor the time spent underwater (this alone amounts to 56.27h).

Despite this immense effort, this was unfortunately a drop from 2021 (124 forms). We have identified four possible reasons for this:

- The cost-of-living crisis that struck the UK has certainly limited divers' availability to join boat-based surveys and shore events that require a longer drive.
- We organised events at dive sites in need of more records for conservation purposes, such as seagrass beds, which are not always appealing to divers, especially if a long way from home.
- Divers, snorkellers and freedivers still use the self-lead WhatsApp groups for joint dives, however these are mostly on popular wrecks for which Seasearch already has a large number of records.
- We made it clear to divers that 1 survey form per dive pair is sufficient (unless it is a qualifying form). Therefore, it was expected that the number of survey forms would be lower than previous years.

Of the 67 forms, a total of 25 (37.31%) were **qualifying forms** from volunteers trained in 2022 and prior - 17 Observer forms and 8 Surveyor forms. Of the 17 Observer forms, 14 (82.35%) were from volunteers trained in May 2022 and 3 were from those trained prior to 2022. All 8 Surveyor qualifying forms were from volunteers trained in August 2022.

Moreover, a significant proportion (44.78%) of the 2022 survey forms were submitted by Libby Keatley, a passionate Seasearch volunteer and now NI Coordinator. Libby submitted 27 Observer forms and 3 Surveyor forms!

Lastly, we note that 31 of total 67 forms (46.27%) were submitted from dive events organised by Seasearch NI, whilst 36 forms (53.73%) were returns from volunteers diving in their own time.

Funding & Partnerships

Partnerships

Seasearch NI has a strong relationship with Ulster Wildlife, the largest local environmental charity in NI. The charity had funded 8 Seasearch dives (4 boat days) in 2021 for Seasearch NI to help explore blue carbon habitats. Due to severe weather, one boat day was transferred to 2022 and completed on the 15th May at the Maidens, visiting Russel Rock and Highland Rock.

Seasearch NI has also been supported by CEDaR, through funding and online promotion of Seasearch events.

We submitted three funding applications in 2022. These were:

Funding Applications

- We applied for the Sea Changers main funding pot of £2,500, hoping to use the funds to help
 us build a marine monitoring program for un-surveyed coastal subtidal areas in NI. We were
 not successful this year, due to the rising popularity of this funding pot across the UK marine
 conservation charities.
- We were successful to receive CEDaR's Environmental Recorders Group Funding, with a total of £984 in order to buy gear necessary for developing a marine monitoring strategy. The breakdown of what was purchased from this grant can be seen below.
- Lastly, with Charlotte Bolton's (National Seasearch Coordinator) immense help, Seasearch NI applied for a large funding pot offered by DAERA. This funding would enable the Seasearch NI to play a key role in subtidal monitoring and data acquisition for the region, in a much larger capacity than has been done so far. If successful, the Seasearch NI Coordinator would be able to work part-time or full-time for a period of 5 years, in partnership with Ulster Wildlife.

Success Stories

New species confirmed!

A Nudibranch was collected on a Seasearch dive at the Skerries last year, spotted by Libby Keatley and collected by Bernard Picton (National Museums NI). This year, it was confirmed through DNA barcoding at the Queen's University Marine lab to be a new, not yet described species of the genus *Dendronotus*.



Representation

In 2022, Seasearch NI was represented at the following events and forums:

Forums

- Seasearch NI is part of the <u>UK Blue Carbon Forum</u> and participates in committee meetings.
- Seasearch NI took an active part in the formulation of the NI Blue Carbon Action Plan and Review of MPA Strategy, which will be finalised in 2023.

Events

- Seasearch NI was invited to give an introductory talk to the Queen's University Belfast Marine Student Society in November 2022.
- Seasearch NI was also part of the 'Saving Our Seas NI' marine conservation documentary, filmed by Queen's Radio. Hollie Teggart, the film's director, shares a brief description of the documentary below:



"Saving Our Seas NI travel across NI's coast and speaks to different community groups which are investing in protecting our beaches and seas. SOSNI looks into how communities have come together and developed innovative ideas to reduce pollution and

littering, monitor biodiversity and much more. Through short documentaries we aim to educate and share the love of the ocean to our country and help people save our seas."

A screenshot of the documentary, showing Seasearch NI divers at Inner Lees, Portaferry.

