

Coastwatch Autumn Shore Survey 2021 results launched by Minister Darragh O Brien TD



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Today 27th December 2021 an overview of Coastwatch citizen scientist autumn shore survey results from 710 sites around Ireland are being launched by Minister for Housing, Local Government and Heritage Mr. Darragh O' Brien T.D.

The minister had braved the winter weather on the Malahide shore a few days earlier for a first meeting with a small Coastwatch delegation in his own Malahide back yard.



Figure 1: Standing between seagrass and saltmarsh habitat, Minister Darragh O'Brien meeting a Coastwatch delegation to look at this blue carbon wealth and Coastwatch citizen science methods. Photo Jonathan Mason.

'The autumn shore survey high and low lights we would like you to launch are just a taster', explained Michael Walsh, Coastwatch Fingal coordinator. *'Details of results will be presented in a series of virtual and live events in early 2022'*. The next event is planned for **World Wetlands Day 2.2.2022**. It's on seagrass findings and finders, the importance of seagrass internationally and follow up action proposals to protect, manage and restore this most valuable blue carbon habitat.

Introduction

The autumn 2021 survey was marked by good weather, without storm, drought or extreme heat wave event, or even a big jellyfish invasion.

'In many areas, it gave Nature time to flourish' several Coastwatch coordinators noted.

'We see that played out in survey results' said Angel Duarte Campos, international technical coordinator, *'no mass mortality of marine life reported in this survey and exciting nature finds which will be arranged into a photo gallery'*.

Survey Highlights:

1. The super survey participation. This was the second autumn shore survey since COVID struck and both years the volunteer response in the ROI has been the highest in a decade. After cleaning data, that is stripping out duplicates and inaccessible shores, we were left with 710 survey sites, or 360 km of island of Ireland coast reported on by citizen scientists.

2. Discovery of new Seagrass beds and important insight into health and pressures.

Citizens discovered over 200 acres of *Zostera* beds which had not been previously recorded on any official data base. These are dotted around our coast from a tiny new *Zostera noltii* bed in Fingal, to a string of *Zostera marina* meadows in south Wexford, Bantry Bay Cork, mid Kerry around Fenit and in mid Clare. A lost *Z marina* patch near the Aquarium in Galway Bay reappeared and there were several new beds found along the North Donegal coast.

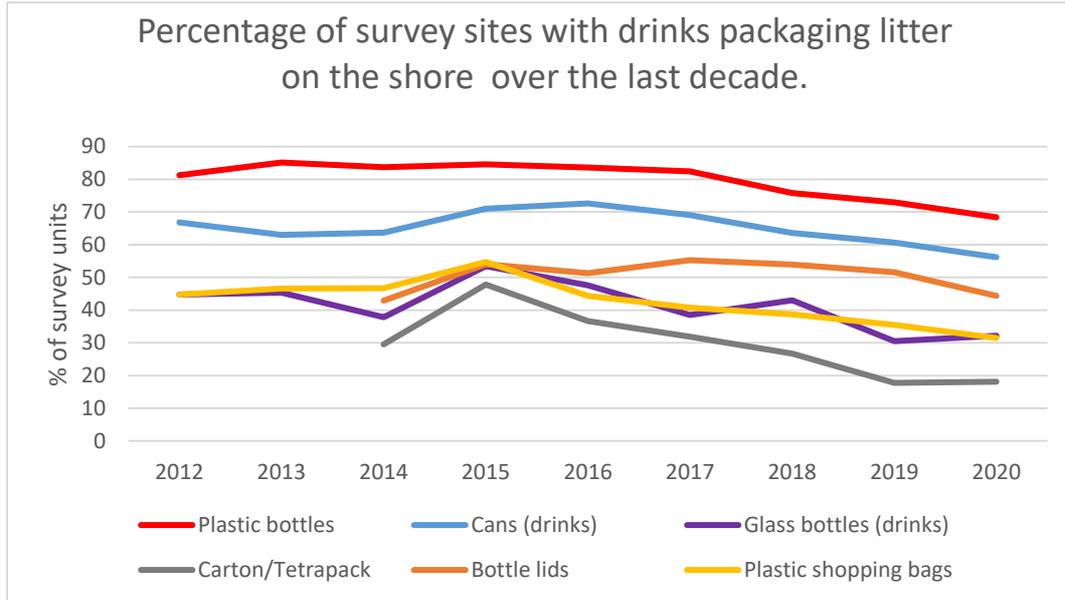
Surveyors captured an amazing diversity of sea life in these and Coastwatch used some kindly made available to print cotton bags as presented to the minister on Turning to the known intertidal *Z noltii* lawns, which the EPA monitors - many have expanded and looked healthier than in recent years, though that was not universal.

'While some last records still have to be verified by core verifier team members, we already know from the confirmed locations that these findings add significantly to our knowledge of these blue carbon riches' said Karin Dubsky, Coastwatch international coordinator.

3. Marine Litter

There was a remarkable reduction in marine litter reported, with improvement spread over most litter categories. The percentage of shores where one or more plastic bottle was

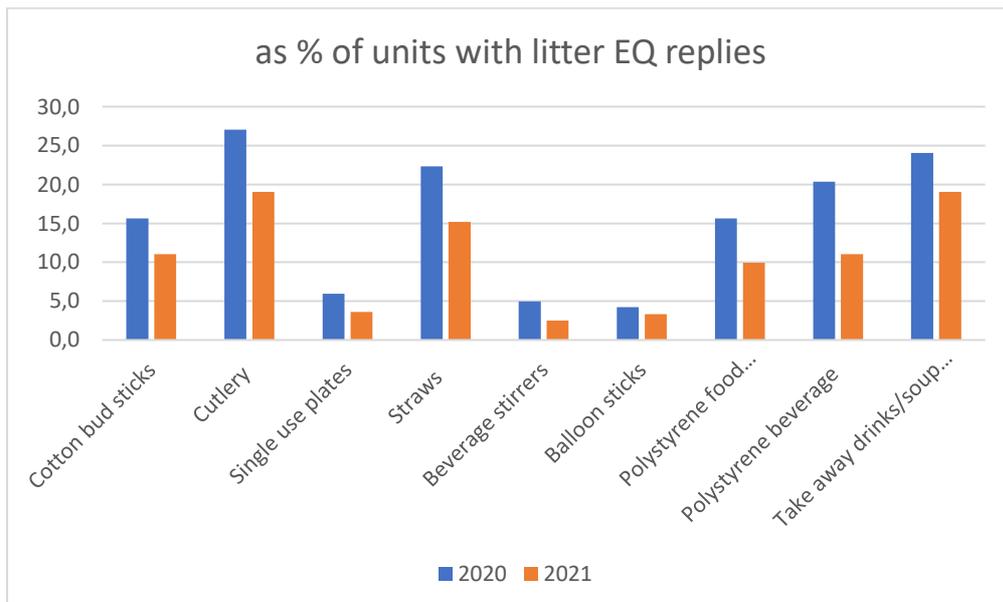
seen has gone down for the 6th year running. The same has happened for drinks cans.



The average number of plastic bottles and drinks can litter found by surveyors is now 4.1 and 2.3 per 500m survey site respectively.

For a list of marine litter items just recorded as 'present' or 'absent' by surveyors, the rank order for the top 5 items reported most frequently remained the same as in the last 3 years. Rope and string was most widely distributed - found in 61.9 % of survey units.

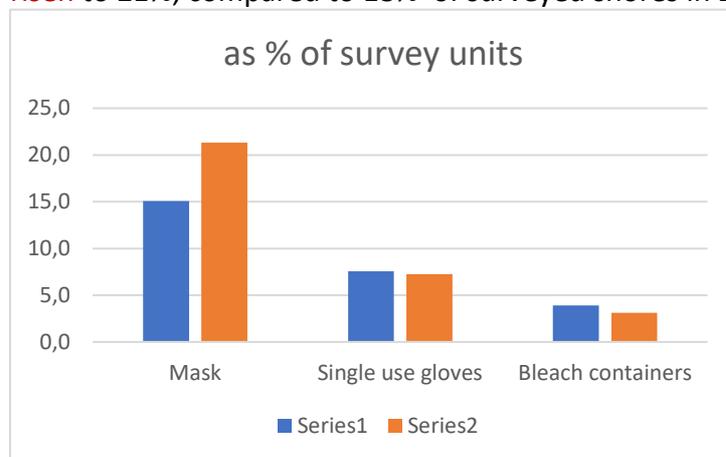
All categories of plastic litter listed in the Single Use Plastics (SUP) directive were recorded in fewer surveyed sites in 2021 than the previous autumn survey. These were plastics where sales had to cease by June 2021 and we had already witnessed the change to alternative materials - such as the return to paper stick cotton buds.



To provide context to the marine litter data we always ask whether the shore had been cleaned within the past week. The positive responses have crept up over the past decade and was higher again this year than any previous year. While this and the An Taisce led big September weekend shore clean will have helped greatly to generate this cleaner shore result, there is more to it. There were only 102 survey units where any micro litter was observed and plastic nurdles which were plaguing shores only 4 years ago are rare now. While there was no storm or flood to ‘replenish’ the main waste deposition spots in estuaries during the survey, even when storm Barra came in November the marine litter load was much smaller than expected.

Lowlights:

Litter: While the general marine litter picture has much improved there were some exceptions. The number of survey sites **where one or more Facemask was recorded had risen** to 21%, compared to 18% of surveyed shores in 2020.



The dog poo bag is now recorded as a shore litter feature in beach areas, but not mentioned 5 years ago. There are more dogs around and it appears that there are many dog owners who use dog poo bags to clean up after their pets but then drop these on the shore.

Aquaculture litter is changing too, with **more plastic used instead of metal**. Some astonishing wasteful practise – **like single use cable ties to hold oyster bags – an auro of such cable ties were reported around L Foyle aquaculture**. Some of the known aquaculture litter hot spots were not covered in this latest autumn survey and so here the apparent reduction in aquaculture waste may not be borne out if we compare the same sites over several years.

The MV Alta ghost ship on a Cork shore was recorded as our largest lump of marine litter. Unless removed from the rock platform it is now perched on, the 75 m long metal, with paint, plastics and bits of asbestos ship will break into umpteen pieces which will make their way down the coast.

Pressures on seagrass and Response: There were several areas with struggling and shrinking seagrass beds. Eutrophication, pollution, invasive alien species encroachment and trampling were noted as most widespread pressures. In one area what appeared to be raw sewage was making its way across a shore. Its path was marked by loss of seagrass.

Research into seagrass protection in the RoI revealed very few cases of seagrass loss prevention or legal consequences for interfering with theoretically protected seagrass listed as features in Natura 2000 sites.

Erosion was again reported more frequently as a threat than any other risk or threat. These were surveyor views in the relative calm 2021 weather. 'It's not the believe that 24% of surveyed sites are threatened by erosion which Coastwatchers see as low light, but that we are still without an erosion management policy', noted Andrew Cox, Regional Coordinator for Co Waterford.

A loss of remote undisturbed shores and a peppering of coastal threat and damage: We are seeing the cumulative impact of construction for many good and bad causes - from planned coastal paths, to unauthorised new vehicle shore access routes, to new developments behind shores and hard erosion control to protect these. By now, a dune cell without some sort of hard engineering is rare and there is no official landscape map layer to pick this up.

Water pollution remains a problem. It was reported in a number of ways – flagged as a usual or frequent sewage pollution on the shore in 14 sites; reported as sewage fungus or filamentous alga blanket seen at time of survey in 11% of small inflows coming from land. Water pollution was also noted as a threat in 62 survey areas, with sewage making up 40% of likely sources, outstripping agricultural pollution.

Resources: Coastwatch coordination could not support several training and event requests from new surveyors and schools due to lack of resources at the time and there was also a lack of manpower during the survey and analyses period, as confirmed interns who would normally become part of the data verification and analyses team could not join us due to COVID.

Note to the Editor

Coastwatch was delighted to meet Minister Darragh O'Brien on the Malahide shore to set out how the survey is done and mention some of the high and low lights just before the launch. A transition student and native Irish speaker Aoife Powell who was interning with Coastwatch also addressed him.



Figure 1 Surveyor Aoife Powell Photo Jonathan Mason

Gabhaimid buíochas mór leat a aire as teacht chuig lainseáil Coastwatch inniu. Tá sé rí-thábhachtach domsa, mar dhuine óg go bhfeicimid ár rialtas ag tógáil an chéad chéim eile chun ár gcóstaí a chosaint agus a choiméad glan dúinne, d'ár mbithéagsúlacht dhúchasach agus don chéad ghlúin eile. Cabhróidh na gníomhaíochtaí seo linn dul i ngleic le hathrú aeráide agus tá súil againn gur féidir linn tús a chur leis sin inniu, go dtabharfaidh tú cosaint d'ár stóiranna carbón gorm ar nós féar mhara. Mar a deirtear, ní neart go cur le chéile.

While the autumn survey data analyses included 710 survey sites, some extra areas and results will be added when we focus on particular themes - like seagrass. New seagrass beds were discovered as part of our seagrass campaign over the summer, but not all these sites were revisited in the autumn survey.

Acknowledgements: The Coastwatch autumn survey was supported by the Marine Environmental Policy Budget of the Department of Housing, Local Government and Heritage. All surveyors and regional coordinators worked as volunteers.

A huge huge thank you to all.

Background

Coastwatch survey

The Coastwatch survey involves volunteers from all walks of life going out to a shore of choice around low tide and methodically checking it out and reporting back on its state.

The coast has been divided into 500m long 'survey units' which the surveyor is encouraged to book on line before going out. Bookings are displayed on line to maximise the area covered.

The citizen scientists then return their results on line or by posting to the Coastwatch office in Trinity College Dublin. Many augment survey report by photos and video clips. Results are cleaned up, duplicates used for quality control analyses and unusual as well as a selection of key findings earmarked for verification. The data is then analysed and GIS maps generated, providing a snapshot of the state of the coast of Ireland North and South between September 15th to October 15th.

This year was the second since COVID struck and as in 2020 the volunteer response in the ROI has been huge. Both years the survey area covered and number of new surveyors was higher than in 'normal years'. However the COVID associated restrictions, as well as funding challenges have impacted on training requests and verification.

PHOTOS AVAILABLE

