



Inspiring, Informing, Sustaining life in Galway Bay

November 2020 - Newsletter

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Cuan Beo Talk to RTE Seascapes



Lorna Sigins from RTE Seascapes interviewing the oyster restoration team

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Cuan Beo Speak with RTE Seascapes

Lorna Siggins spoke with Dr Oliver Tully about Oyster Reef Restoration works, with Dave Krausse about the challenges facing oyster restoration in Galway Bay, and with Noreen Cassidy about Cuan Beo's community outreach initiative.

The interviews are available to listen to on RTE website as a podcast.

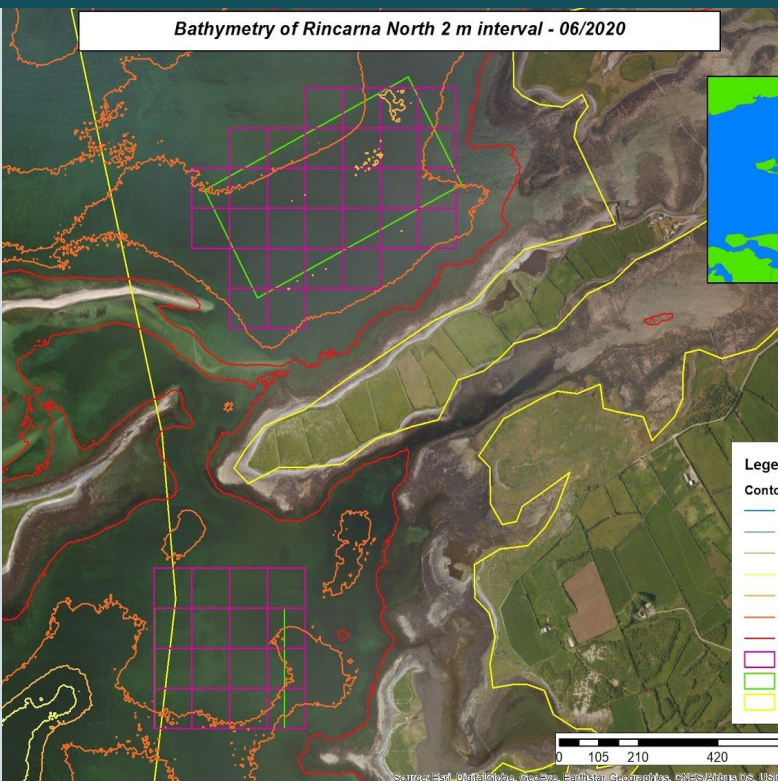
Link to the Seascapes Page where recording is available:

<https://www.rte.ie/radio1/seascapes/>



Lorna Siggins interviewing Dave Krausse at Tarrea Pier

Cuan Beo Present at the Third Native Oysters Restoration Alliance Conference



The Third Native Oyster Restoration Alliance Conference was held online on the 3rd and the 4th of November.

The Conference provided an up to date review of European Native oyster restoration works.

Cuan Beo presented an update on the Oyster Restoration works ongoing in Galway bay with a focus on cultch deployment, gonade monitoring, wild spat monitoring and oyster seed production.

A link to the Cuan Beo website where you can view our presentation:

<http://cuanbeo.com/video/>



Image of the oyster restoration sites at the St George's Oyster Fishery Bed

Native Oyster Spat Production at Iarlaith Connellan's Spatting Ponds New Quay County Clare

- Oyster Restoration Works



Native Oyster Spat Production:

Native oyster production is undertaken at Iarlaith Connellan's oyster hatchery located in New Quay Co Clare.

The oysters are bred from a broodstock and oyster larvae is released into the surface spatting ponds.

The larvae is captured on mussel shell, oyster shell, crushed delph plates and other similar substrates that are contained in mesh bags hung on the side of the ponds.

In the images contained to the left you can see where oyster settlement had occurred on an unglazed delph plate.

Although wild spat will settled naturally at the restoration site, the addition of hatchery produced native oysters will help boost the population of native oysters at the Galway Bay native oyster restoration sites.



Harrowing at the St Georges Oyster Bed

- Oyster Restoration Works

Cuan Beo's Owen O Connell, Cyril Keane and Sarah Clarke of the Marine Institute have been conducting harrowing of the sediment covered dormant native oyster reefs at St Georges Oyster Bed Fishery in Galway Bay.

How it works:

Harrowing involves removing the sediment and silt that covers shellfish reefs arising from excessive siltation events. The beam trawl (contained in the second image to the right) is attached by rope to a boat and is towed over the dormant reef. The timber of the beam trawl is angled downwards so that the trawl is pressed down to the seabed whilst being towed through the water. The gap at the front of the trawl is smaller than the gap contained at the rear which forces the water through the beam in a 'jet like motion'. This jet like motion displaces the top sediment and exposes the top layer of the dormant reef which is attractive for new oyster larvae to settle on.

Low impact:

Harrowing using a beam trawl has a low impact on the reef as the method involves no dredging and no part of the beam trawl digs into the seabed. Alternatively, the beam trawl hovers over the seabed and water is forced through the gap trawl and is expelled at the rear. This creates a jet like pressure and displaces the top layer of sediment. Similar to the way trees rassel under the air stream created by a low flying aircraft.

Siltation Challenge:

Excessive siltation in estuarine waters is suffered by regions with proximity to flood relief programmes, agricultural fertilization, waste water treatment and that support large urban populations. Suspended solids omitted from this activities are deposited in coastal waters via freshwater inputs.



The Common Dolphin and Harbour Porpoise

- Who's Swimming in Galway Bay?

Irish waters provide a suitable habitat for a wide range of marine mammal species, precisely 25 different species of whales, dolphins and porpoises can be found to date in Irish waters.

Galway bay is no exception with several species frequently seen around the Galway coast. During periods of calm sea conditions, Galway's Irish Whale and Dolphin local group often organise strategic headland watches from Black Head, Co. Clare and Spiddal Co. Galway.

The most frequently encountered species during these dedicated headland watches are the harbour porpoise (*Phocoena phocoena*) and common dolphin (*Delphinus delphis*). Harbour porpoises can be distinguished from dolphins by their small size, and small 'triangular' dorsal fin. Harbour porpoises do not have a distinctive body pattern and, do not have a defined beak unlike the common dolphin which has a relatively long, narrow beak and a distinctive 'hourglass-shaped body pattern'.

IWDG local groups were established to connect like-minded people, making data collection for the sighting and stranding schemes easier and more consistent. During a headland watch members collect data that includes the number of species and the number of individuals observed, weather conditions such as sea state and visibility (how far away you can see) and most importantly we record the number of hours the group spends in the field looking for marine mammals.

This information is collated with the existing IWDG database and helps form a better picture of abundance and distribution of marine mammals present in Irish coastal waters. This information can also give IWDG an insight into a species social structure, behavioural patterns and habitat use which can over time inform us on possible anthropogenic (human-made) impacts.

Sibéal Regan
IWDG Education & Outreach Officer

Kavya Ramesh
IWDG member



Common Dolphin photograph by Padraig Whooley



Harbour Porpoise photograph by Simon Berrow

Galway Bay Profile of the Month - Ciara O' Halloran



Over the web, calling from my cup covered desk, decorated with Mars bar wrappers and more empty Supermac's cookie boxes than I care to admit, I zoom call Ciara O'Halloran in New Quay on the Flaggy Shore and I ask her what is there to find in County Clare? She response plainly 'In Clare, you will find water'.

It pours down in habitual and unforgiving rain showers, it is cut deep into the limestone landscape flowing underground in hidden but lively rivers, it surges inland daily without fail in huge atlantic tides that saturate a network of folding and meandering rocky shorelines, and it floats effortlessly as misty cloud in rich ocean air that condenses on the greenery and mossy rocks so that each surface is damp and fresh to touch. Weather you realise it or not if you are from this place the feel, the fragrance, the flavour and the funny flutter of water is hardwired into you, and you can become tuned to it, so as to play along with it's quite and concealed symphony.

During a 14 month volunteering stint in landlocked Zambia working for the Galway based Alan Kerins Project Zambia Ciara found herself out of tune to this water symphony, and so along with fellow volunteer and Spiddal born Pearse O'Toole drove 10 hours across the dust and the dirt to find water. Not to swim in it nor drink from it, but to simply be beside it, as if to meet with an old friend that she had gone too long without seeing.

Standing there on the gritty shoreline looking over Lake Kariba on the Zambia Zimbabwe border, I begin to speculate what Ciara must have been thinking about, and I wonder what was it in this basic blue entity that she couldn't do without; what is it in water that she loved?

On returning to Clare Ciara got involved in the family business, purifying oysters sourced from local producers and dispatching them to markets all over Europe. One day a group of friends on a cycling holiday who had been beaten by the bad weather called Ciara and asked could they view the oyster purification facility and hear about the business of growing and selling oysters. This sparked the idea in Ciara to begin hosting oyster tours, a tour herself and her father Gerry aptly named 'Shuck Off'.

On the tour Ciara and Gerry give a fascinating look into the world of oyster cultivation, teach the delicate art of shucking an oyster, and encourage the participants to take the plunge and swallow an oyster (providing a friendly glass of wine to those who need a bit of liquid courage to do so!). But chardonnay and tabasco sauce aside, it comes back to the love of the water for Ciara and showing people all the wet, weird and wonderful little creatures that live in it; not just the oyster.

In one of the tanks at the Flaggy Shore purification facility you will find a quaint little underwater village containing a variety of vibrant salty characters. Lobsters, starfish, green crabs, sea cucumbers, blue mussels and of course a few oysters. A mini ecosystem, a little snip it of the flaggy shore available to view in dry socks from behind closed doors! I particularly enjoyed hearing Ciara explain the unique personalities each sea creature displays, from the stubborn old lobster in the corner, to the busy little green crabs running rings around the tank and at last the shy little oyster afraid to open his shell for too long in case he is discovered by any of the others. Of course there are casualties along the way, I felt a tear begin in my eye as Ciara recounted to me one story of how she mourned the death of one of the lobsters who had succumb to some unforeseen illness and that she missed seeing him the following day when she opened up the facility in the morning. But as Ciara explained it's a privilege and a wonder to see these watery creatures and part of bringing this experience to people is capturing the circle of life and fostering an appreciation for the seafood they consume.

Of course, the tours have stopped for the moment and the oyster sales have taken a little knock, like most things during this second national lockdown, but there is still water bubbling in the tanks and oysters continue to pass through Ciara's doors at the Flaggy Shore. I got to see a bit of it through my zoom call with Ciara from my very messy desk in Donegal, and although I didn't shuck any oysters nor taste any chardonnay, I gained an insight into that watery world Ciara is such a powerful advocate for, and I am glad I got a little look into those oyster tanks behind the redbank seafood doors at New Quay along the Flaggy Shore.



Ciara giving a 'shuck off' tour at the Red Bank Seafood Facility on the Flaggy Shore

Famous Oysters From Around the World

First Man to Eat an Oyster



18th century author Jonathan Swift wrote "He was a bold man who ate the first oyster". Although nothing more than a merr satirical whim for Swift, the line became the obsessions and purpose for the foremost renowned anthropologists world wide, and has inspired over 200 years of periwinkle pursuits, clam campaigns and crustacean crusades . In 2007 the word stopped and there was a global sigh of relief as the discovery of a cave in South Africa found evidence of early humans eating oyster over 164,000 years ago. A moment of euphoria and ecstasy that saw celebrations unimaginable internationally. But alas only a moment, was this truly the first man to eat an oyster? The best guess to date - yes, but a definitive answer - no. So the saga continues, to be carried on by generations yet to come, and with the brain of man and the grace of God, one day before the conclusion of this our planet we hope and dream, that this great hero, the first shucker, we will discover him, and tip our tankers high to his glory and his honor.

1,000 Ways to Use an Oyster

Feed that Chicken!



Oyster shells are extremely rich in calcium carbonate, which is an excellent mineral to feed chickens as it results in healthy and tough shell production for eggs.

Simply heat the oyster shell to soften it and then crush it with a hammer until it is small enough for the chickens to eat. Then just watch them sweet sweet eggs roll in!

Cuan Beo
Kinvara, Co. Galway, Ireland

