Sea Synergy, Waterville, Kerry
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Renard Strand Survey Report 2021

Images: Upper Shore Peat Bog

Introduction

Sea Synergy joined local community members to assess and document the marine biodiversity along Renard Strand where the license application from Realt Na Mara Shellfish Ltd (Cromane lower, Killorglin, Co.Kerry), Nigel Sheehan (Stook island, Cromane, Co.Kerry), Brian McCarthy (Annadale road, Killorglin) and Daniel O'Mahony (Ardcost, Portmagee) stands to place Oyster Farms.

Application Codes:

T06/461A Realt Na Mara Shellfish Ltd, Cromane lower, Killorglin, Co.Kerry
T06/521A Nigel Sheehan, Stookisland, Cromane, Co.Kerry
T06/502A Brian Mc Carthy and Daniel O' Mahony
T06/503A Brian Mc Carthy and Daniel O' Mahony
T06/514A Brian Mc Carthy and Daniel O' Mahony
T06/515A Brian MC Carthy and Daniel O'Mahony

The application form for license of Oyster farms has been a great concern as the local site descriptions have not been comparable creating concern of appropriate assessment information. The decision was made to carry out an exploratory assessment to document marine biodiversity found at the proposed location in the aim of; documenting up to date information on habitats and biota in the application areas; assessing seafloor hardness and integrity.

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Methods

The shore and snorkel survey was carried out at low tide on May 29th 2021 (2pm-5pm) which consisted of a walking methodical zig-zag search covering a distance of 1000m from high water to knee deep low tide followed by a 500m snorkel along the low tide line.

Image: Map of Area Surveyed

Images: Peat Bog Outliers with Piddock beds, survey team, lower shore

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Results

During the walking survey a range of different habitats were found from the upper shore to lower shore demonstrating rich biodiversity. These habitats included high peat bog outliers, rock outcrops and boulders and a shingle beach with sand and mud patches were found. A lagoon is present which is known as Lough Mask. This is separated from the sea by a shingle bank for the majority of the tidal cycle but with strong water movement in/out forming a priority habitat that was seen to have rich biodiversity. Numerous piddock shells were found on the site, including numerous living in the peat on the lower shore. When snorkeling inside the lagoon there were many juvenile fish species (a potential nursery for juvenile marine life), an abundance of invertebrate filter feeders including peacock worms, nudibranchs, common shrimps and prawns and numerous shore. (See Table 1, 2, 3 for list of Invertebrates, seaweeds and fish found)

Table 1: Invertebrates

Gastropoda	Bivalvia	Crustaceans	Worms	Other
Periwinkle Limpet Topshell (including turban topshell) Common whelk Dog whelk	Teredo Mollusca Clam Cockle Razor clam Piddock (including live piddock beds present in peat) Scallop Native European oyster Pacific oyster Saddle oyster King Scallop	Shore crab Hermit crab Common shrimp Common prawn	Spirorbis Tubeworm Lugworm Sand mason Peacock worm Eyelash worm	Burrowing anemone Daisy Anemones Beadlet anemone Sea pen Brittle star Chiton Tunicates Breadcrumb sponge Spiny starfish Lobe shell sea slug Sea Lemon eggs Chimney Sponge Acidians (Sea Squirts) Nudibranch Cadlina laevis

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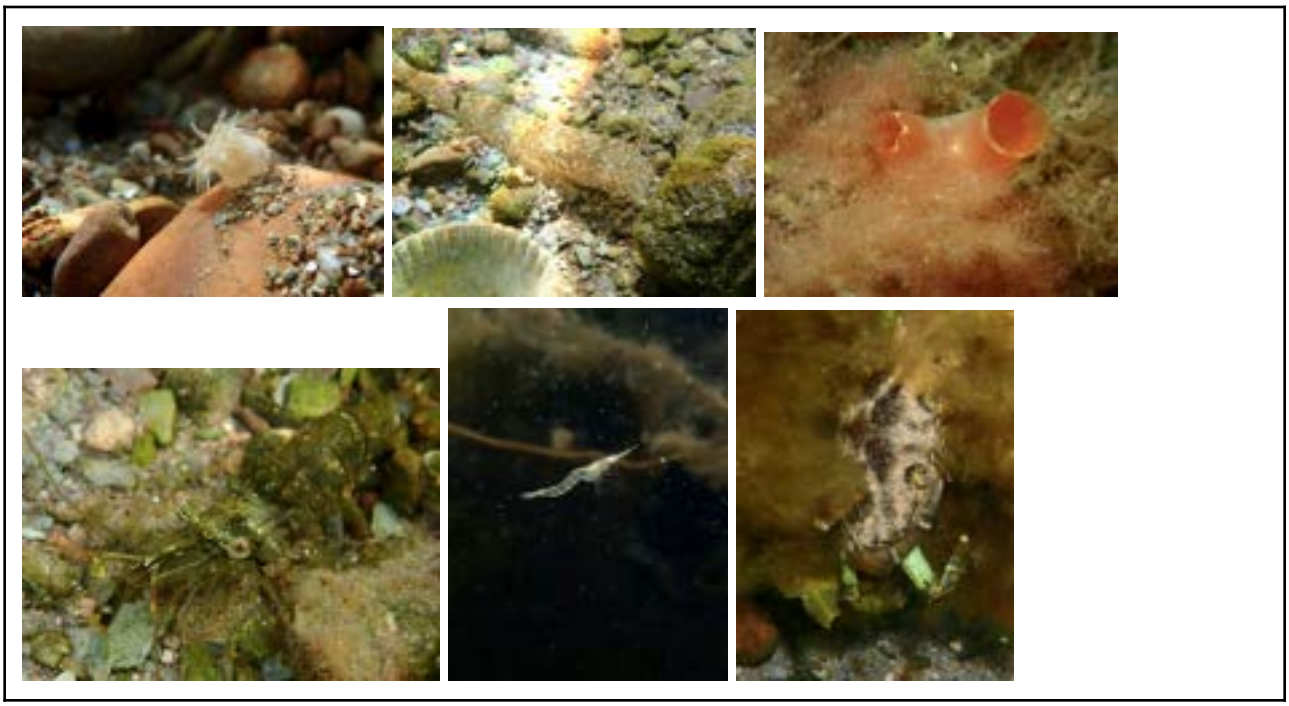

Table 2: Seaweed

Fucus vesiculosus, Fucus serratus Ascophyllum nodosum Himanthalia elongata Osmundea pinnatifida	Ulva lactuca Ulva intestinalis Ulva fenestrata	

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Table 3: Fish

Sand eel
Rockling goby
Wrasse
Weever fish
Mullet
Blennies
Gobies
Small spotted catfish

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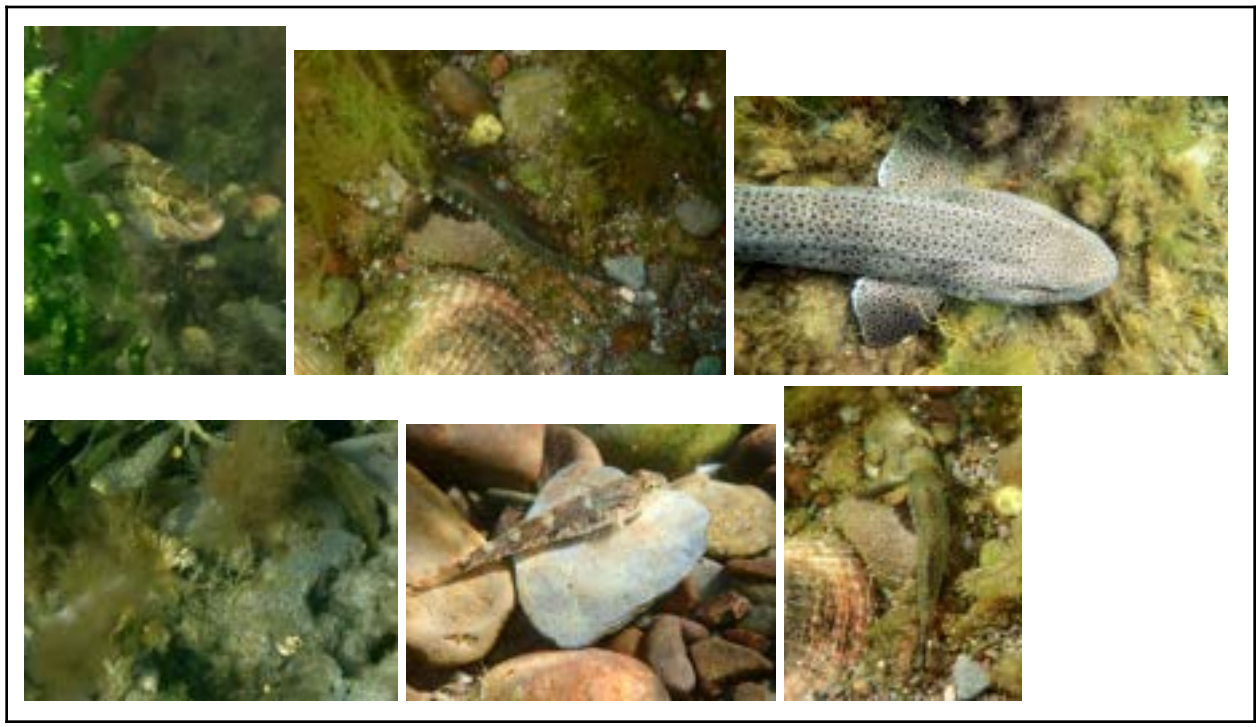

Discussion Points

High to mid shore was found to be soft footed, where the peat bounced especially near the drowned forest and seaweed. Reef and sediment communities are vulnerable to disturbance or compaction from tractors accessing oyster trestles. This is of concern as heavy machinery will sink into the ground causing unprecedented damage which will release carbon against our directives. Additionally seaweeds along the intertidal zone will be highly disturbed. Another concern is that sewage and detritus of the aquaculture industry could be deleterious to the benthic communities. Eutrophication is probably affecting some of the lagoons and is a continued threat and bird populations may also be disturbed by aquaculture activities.

The live Piddock beds found in peat are of concern as this biotope is present in areas where fossilised peat are exposed at the surface. This habitat type is restricted in distribution and the thickness of the peat layers varies. If and when removed entirely there is no mechanism by which the substratum can be replaced, unlike other sedimentary habitats which may be renewed by water transport of sediment particles. When entirely removed, no recovery of habitat is possible therefore their resilience is very low. There are very few documented Piddock beds in Ireland.

Other species of concern are *Edwardsia delapiae* (a rare burrowing sea anemone) that has only ever been recorded from Valentia Harbour in Ireland, and Peacock worms which were high in abundance during the snorkel survey and in the lagoon.

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Images: Piddock bed, Piddock shell, Peacock worm

Sea Synergy would see that any works done on the shore would cause great damage to the habitat, release carbon that has been sequestered for centuries and run the risk of destroying an extremely rare species habitat - piddock. This is a significant risk to the Natura 2000 site and the conservation objectives. Sea Synergy suggests the area should be further explored and surveyed where it can be valued for research and educational purposes, ecotourism focusing on non-contact recreation such as snorkeling, diving, kayaking and paddle boarding. .

Habitats Directive notes:
Principal benthic communities recorded within the qualifying interests for Valentia island and Portmagee channel Special Area of Conservation (SAC) are: Large, shallow inlets and bays; Mudflats and sandflats not covered by seawater at low tide; and reefs within Valentia Harbour/Portmagee Channel SAC (Site Code 002262) (NPWS 2012a,b).

Photo Credit:
Vinny Hyland
Aoibheann Gillespie-Mules