

## Marine Farming Association December Monthly Update for Industry Advisory Group

Unfortunately, our first deployment that was scheduled for the 9<sup>th</sup> & 10<sup>th</sup> of December was cancelled due to poor weather. We have rescheduled the deployment for January 20<sup>th</sup> & 21<sup>st</sup>, with our rain dates being the 22<sup>nd</sup> and the 23<sup>rd</sup>.

But I wanted to submit a December update to inform the advisory group that we have started the process of preparing for the second deployment. For this deployment we will place down whole recycled shells as a benthic layer before we place the live mussels down to test whether it will improve our restoration success in muddier habitats. We have chosen two locations for the two, 200 m<sup>2</sup> restoration plots, Fairy Bay and Kenepuru Entrance.

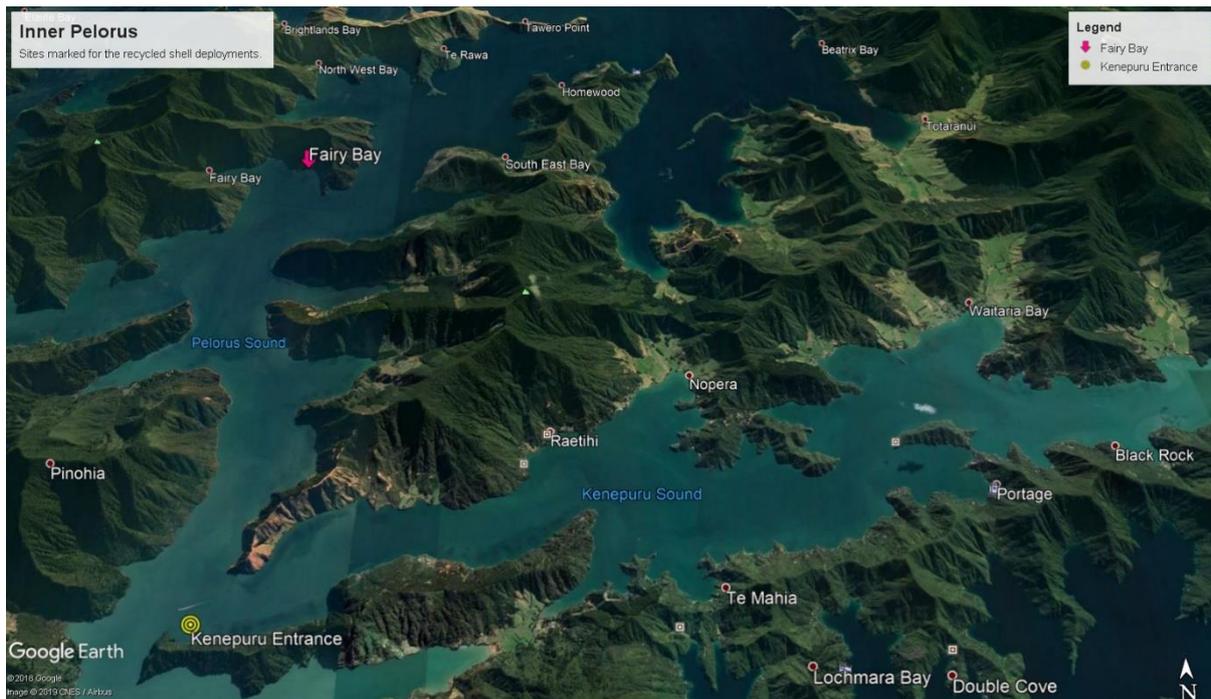


Figure 1: A Map of the inner Pelorus Sound showing the two sites for the recycled shell deployments.

In order to place the recycled shell in the water we must apply for a resource consent. Our first step for the consent was to perform an environmental assessment of each location and create an impact report to submit to MDC. We have performed a benthic analysis which included photoquadrats, sediment grain size analysis and organic content, side scan sonar, as well as identifying the macrofauna that live at the locations. I have included one of the photoquadrats for each site and the sediment grain size analysis below. As you can see, Kenepuru Entrance has more mud than Fairy Bay, which has a mixture of mud and sand. This will give us two different types of habitats for experimental comparison.

We will continue to work through the resource consent application process and will update as soon as we hear back from MDC. I hope you guys have a great Christmas break and as always, if you have any comments or feedback on this month's progress, please feel free to email me at [egol669@aucklanduni.ac.nz](mailto:egol669@aucklanduni.ac.nz).

Thank you for all your help and your time with this project. 😊 Emilee Benjamin

### Photos from Dec 2019



Figure 2: This is a photoquadrat of the bottom habitat at our Fairy Bay location.



Figure 3: This is a photoquadrat of the bottom habitat at the Kenepuru Entrance location.

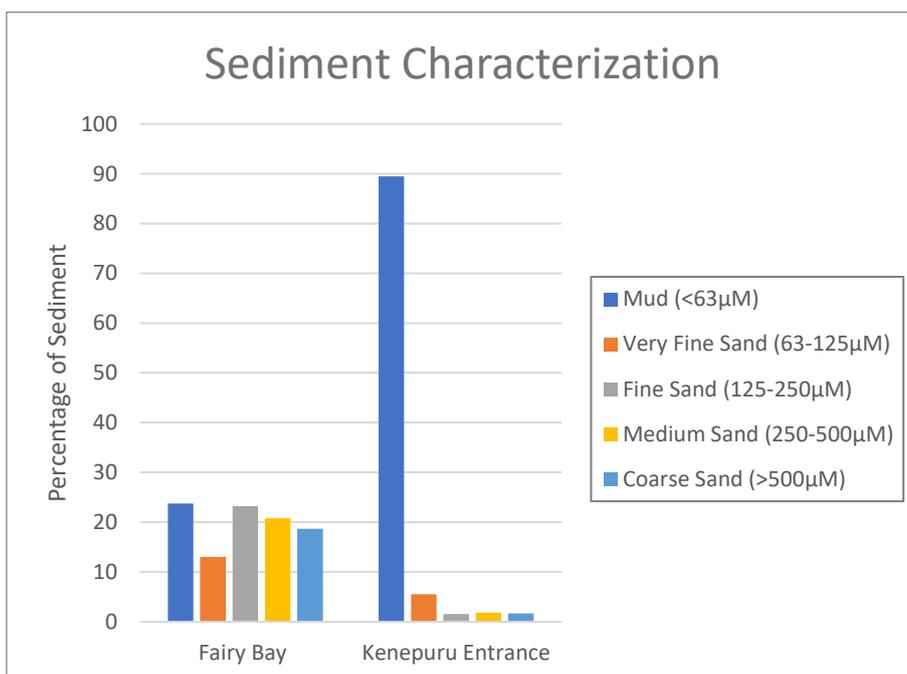


Figure 4: Graph showing the sediment characterization for the Fairy Bay and Kenepuru Sites.