

Ocean Literacy Action Plan

Pender Island Microplastic Clean Up



There is a whole other level of plastics on our beaches, ones that are tiny and hard to pick up. I see these on our beaches all the time and have always been frustrated at their determination to hide in the environment forever, if we don't catch them before they break down even more. For my action plan I am organising a clean up focused on removing these microplastics from the ocean and environment, starting with the beaches of Pender. As a first step I am organising a clean up of just one of Penders beaches. I also hope to look more into the source of things like nurdles are what we could do to prevent them from ending up in our waters.

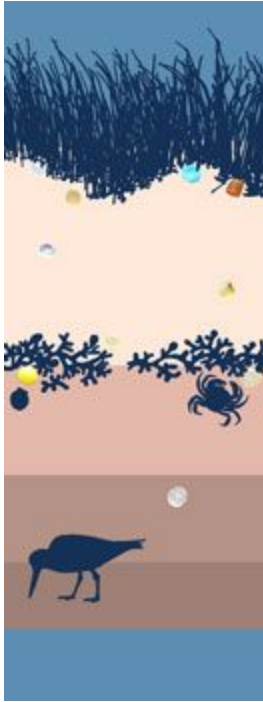
Goals:

My short term goal is to have a beach clean up on Pender, focusing on microplastics like nurdles and styrofoam on one of Pender's beaches.

My long term goals are to maybe create a yearly clean up for these microplastics. I will also aim to raise awareness of microplastics collecting on our shores and microplastic production and contamination.

Audience:

Aimed for the residents of Pender, anyone who wants to come and help. I hope all ages come and awareness is spread to all generations.



Timetable:

Complete beach clean up before the end of August.

1. Put up posters as soon as possible.
2. Set clean up date a Sunday in early August.
3. Spend around a few hours cleaning the beach.

Location:

Gather and clean Medicine beach.

Materials:

- Garbage bags
- Gloves
- Buckets
- Small nets
- Table
- Ocean literacy information sheet for people to look at

To get the microplastics out of the other natural debris, you put a handful of debris in a bucket and fill it with water. The plastics float to the top and then can be scooped up and collected.

Background information:

We will be picking up the bigger, collectable by hand microplastics like nurdles, small plastics, and styrofoam.

Microplastics are defined as plastic debris between 5mm and 1mm in size. This can include broken down plastics, microbeads, fibers, styrofoam, and nurdles.

Nurdles are small plastic pellets that are the pre-production form of most plastic products. They will gather toxins over time that are then absorbed with the plastic into the food chain.

Styrofoam becomes microplastics when it breaks down into polystyrene beads that are around the same size as nurdles.

Small plastic debris is just plastic broken down to smaller and smaller pieces, never biodegrading. The smaller the pieces the more likely to be mistaken for food and contaminate the food chain from being mistaken for plankton and other small food, consumed by animals and working their way up through predator and prey. Eventually this chain also reaches humans and we get what we gave in the face.

Outline of activities:

1. Put out posters for the event with general information about date, time, and some facts about microplastics.
2. At the start of clean up, gathered at the beach, I will explain about where the microplastics come from and the effects they have on the environment, as well as the seven ocean literacies.
3. Hand out garbage bags, gloves, buckets, and nets at the start of the clean up.
4. Spend 1-2 hours cleaning up beach.
5. Take plastics collected to be taken off the island. I wish there was a better option for microplastics than recycling, where they are formed into pellets again and repeat the risk of spills all over again.
6. Add clean up to oceanwise website.



I hope people leave with a deeper understanding of microplastics and the problems they pose to the ocean and environment. I also hope people are inspired to take everyday actions like just picking up plastics they find at any beach or holding an awareness they might spread to others.

What we really need to overcome the challenge microplastics (especially nurdles) present is a way to stop the plastic from getting into the ocean first place. If it is never there it won't break down in the ocean and become microplastics. For nurdles this at least means stricter transporting laws to prevent spills. It is true that if we focused on picking up bigger plastics those wouldn't be breaking down in the ocean, but there will still be microplastics there.

I chose to specify my action plan to microplastics to spread awareness about them. I think there is less publicity about these than other marine plastics, and to spread awareness means more people will care and things will change.

Sources:

<https://www.nurdlehunt.org.uk/>
<https://education.ocean.org/>
<https://www.shorelinecleanup.ca/>
<https://www.saambr.org.za/>

Photo credits:

<http://www.plasticsouplab.org/hunting-for-plastic-nurdles-in-westerschelde/>
<https://www.nurdlehunt.org.uk/take-part/how-to-hunt-nurdles.html>



Microplastic Beach Cleanup

Medicine Beach

Microplastics are small plastic debris less than 5mm in size. Broken down plastics are commonly mistaken for food and are eaten by marine animals, traveling up the food chain.



Nurdles, the pre-production pellet form of almost all plastic, are one of the most common microplastics. They can be spilled anywhere during transportation or production, and are dangerous to animals as they will gather toxins.

Meet at Medicine Beach parking lot
Sunday, August 12, 2018
10am

Please bring garbage bags or jars and gloves if you have them

Help clear our beaches, for the
health of our earth