Clyde Nurdle Quest — Instructions

This citizen science survey will map the presence of nurdles in the strandline of beaches in the Clyde Sea, enabling us to identify hotspots of plastic pollution.

Simply follow these instructions to take part:

- 1. Choose a beach you visit regularly. Use a map to find a 500m section of the beach that you want to survey. Find some landmarks that make it easy for you to spot the start and end of your chosen section. Let us know the location by e-mailing natalie.welden@york.ac.uk
- 2. Visit your site for a Nurdle hunt on the **key dates** (shown below). You will be expected to hunt for nurdles along the same transect once a fortnight for 2 months **4 hunts in total.**
- 3. Walk along the chosen transect twice— on the walk up the beach, look for nurdles along the **last tide-line** and count how many you found. A rough range is fine. Walking back along the beach, look for nurdles along the top of the beach at the **high water mark** (or vice versa).
- 4. DO NOT COLLECT any nurdles you find, as this could skew results. If you want to collect the nurdles, please only do so after the final survey.
- 5. Look out for **other types of plastic** and note down what you find on your survey card. These could include Bottle caps, bottles, cotton bud sticks, polystyrene, fishing line / net, cigarette butts/filters, packaging, or other pieces of small plastic.
- 6. Other information to note down include the **wind direction**, **date**, **and the time you took to hunt**. Use our Clyde Nurdle Quest record card to make sure you haven't forgotten anything.
- 7. **Report your findings!** You can do this online at www.nurdlehunt/take-part/share-your-findings.html—just add the additional information from the record cards to the 'any other information' box, or upload a photo of your CNQ record card. Alternatively, send the completed card to Fidra, 25 Westgate, North Berwick, EH39 4AG.
- 8. Repeat the same hunt for each of the **key dates** shown below.

Your data will contribute to the first Nurdle dataset on the clyde. It will help us to work out how Nurdle numbers vary over time and with different environmental conditions. We will also be looking for a link between Nurdle numbers and other plastic pollution.

Key dates

Core sampling dates:

Sat 7th or Sun 8th May Sat 21st or Sun 22nd May

Sat 4th or Sun 5th June

Sun 19th June

For the extra committed:

Sun 3rd, or Mon 4th July

Tues 19th or Wed 20th July,

Tues 2nd August

Wed 17th or Thurs 18th August

Tips for your hunt

 Nurdles are 2-3mm, disc or lentil-shaped. They can vary in colour, opacity and density.



- They can be hard to spot: Get down low and close to the ground. Check our website for more <u>hunting tips</u>.
- Pick a sandy beach if possible—nurdles are tough to spot on pebbly and shelly beaches
- Avoid beaches that are mechanically cleaned regularly
- Treat nurdles like any other marine debris—wear gloves and wash your hands thoroughly after hunting

What is a Nurdle?

Nurdles are the raw ingredient for the majority of our plastic products. About the size of a lentil, they are easily lost through accidental spills during production, transport and plastics manufacture, and can end up down our drains, in our watercourses and sometimes find their way to the sea. Here they can be mistaken by prey by many marine animals and seabirds and enter the food chain, and can cause harm to marine ecosystems.

Clyde Nurdle Quest

Countless pellets are found littering Scottish beaches.

The Great Nurdle Hunt has used information from citizen scientists like you to build up a better picture of where nurdles are found in many parts of Scotland. This helps us build up evidence and highlight the scale of the problem to the plastics industry, to persuade them to stop spilling nurdles for good.







Nurdles found on beaches around the Clyde

What is the Clyde Nurdle Quest?

By taking part in this unique survey, you will not only be helping us to gather evidence to show to industry, but will also contribute to unique scientific research into microplastic pollution in our seas:

The Clyde is a known hot-spot for nurdle pollution, and shocking numbers of pellets have been found littering its beaches, but we still don't have many finds reported in the area. The survey will pinpoint the worst polluted areas and highlight that there is a problem.

The data collected will contribute to a scientific study looking to answer questions such as:

- How do Nurdle numbers change over time / in relation to wind direction, tides, currents?
- How are nurdles distributed around the Clyde? Are large numbers of beaches in any way linked to proximity to industry?
- How are Nurdle numbers related to presence of other plastic pollution? Are the two always linked?



