

What's in my bag? Metaprobe sampling edition

A 'How-To' for citizen science sailors sampling with the Metaprobe 2.0

Overview

A sampling event is identified by an event ID, and consists of any samples you take at any ONE location. The event ID has three parts: the date, a code identifying whether it was a citizen science (CS) or researcher/tour operator (R) collected sample, and a letter, e.g. the second sampling event on the 3rd June 2020 collected by a citizen scientist = 03062020-CS-B.

You will be collecting one sample at one/each sampling event for us (thank you!), so the sample ID will be the event ID and two more pieces of information: the letters MP (identifying you took a metaprobe sample), and a number identifying whether the sample was the 1st, 2nd, 3rd, etc (in most cases this will be '1'). For example, the first metaprobe taken in the first sampling event on the 3rd June 2020 will be recorded as 03062020-CS-A-MP1. Furthermore, for every one metaprobe, inside there are three pieces of cotton, that each need to be stored separately - which is why in your bag you have the three 50mL tubes. Each tube needs to be labelled with the SAME sample ID (e.g. 03062020-CS-A-MP1), and you can find three labels, one for each tube, in your bag. Once you have collected your sample and extracted those pieces of cotton, it doesn't matter which roll goes in each tube, as long as only one roll goes in each.

Recording data

Use the data sheet provided to record information on the sampling event you will be conducting for us. You will need to record:

- the date (DD/MM/YYYY)
- the time the Metaprobe goes IN and the time it comes OUT (00:00 24hr time) (Time In, Time Out on data sheet)
- the location in GPS coordinates
- the sampling event ID
- the sample ID
- who recorded the data

- the name of the vessel
- the number of people aboard the vessel

There is also room for notes in case there's anything you'd like to add.

What's in my bag?

Inside your bag you should have the following items:

- a project description sheet
 - a Who to Contact Sheet
 - a data recording sheet
 - one sampling event bag, with:
 - one Metaprobe zip-tied shut, three rolls inside zip tied individually
 - three clear tubes with blue lids, with 30mL of clear liquid (90% ethanol), in a small sample bag
 - rope, attached to locking D-ring with weight and buoy
 - medical gloves, 4 gloves per person, in a sealed zip loc bag
 - mini spray bottle with 10% bleach solution
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Sampling

When?

We ask that you sample on your voyage back to Cornwall, on either the second-to-last day of your trip late in the afternoon or on the last day of your trip.

Where?

We don't mind where as long as you are not in shallow coastal water we consider 'coastal' to be within 6 nautical miles of the nearest shore.

How?

Once at the location you are going to sample:

1. On the data sheet, write in the event IDs and sample IDs, as per the instructions above.
2. Now, write the sample ID on the three labels provided.
3. From the sampling event bag remove the pre-prepared Metaprobe (MP) - attached to the MP should be the D-ring, and to the D-ring you should attach the rope.

4. Deploy the MP by gently tossing the MP overboard into the sea, holding onto the rope. Try to avoid surface debris and plants where possible. Record the TIME IN (24hr clock).
5. You can cleat off the MP rope and let it soak for as long as possible.
6. Close to hauling in time, while the MP is soaking in the sea, someone else can do the following: remove the mini-spray bottle from the sampling event bag. Find a flat dry surface and spray it with the bleach solution (note! do not spray onto wood, as the bleach may effect the varnish. Best to use a plastic or metal surface). This surface, once sprayed, is your sterile workspace for when you bring the MP up.
7. Also during this interval, record the location, date, name of the person recorded the data and/or sampling, the vessel name, and the number of passengers, onto the data sheet at the bottom of this document.
8. Before extracting the MP, put on a pair of disposable medical gloves from the sampling bag.
9. Use the rope to bring the MP back onboard. You will now extract the rolls which have collected the eDNA. Remember you must be wearing the disposable gloves.
10. Place the MP on the cleaned surface, and cut the zip-ties holding the MP together.
11. Remove the three rolls of gauze that are zip-tied in their middle. Have a friend open the 50mL tubes, and wearing gloves place one roll inside each tube, into the clear liquid (an ethanol solution). Have your friend close the tube. Repeat for the other two rolls , and the other two tubes.
12. Place the closed 50mL tubes (with cotton now inside) into the small sample bag. Seal this bag, and place this bag with the three tubes into the fridge.
13. Now it's time to clean up. You can remove your gloves and dispose of them safely into the rubbish bin. From the sampling event bag, remove any papers that you'd like to keep, and most importantly remove this instruction paper and data sheet. Then, into the large sampling event bag, you can deposit the mini-spray bottle, the MP with D-ring, and the rope.
14. Keep the data sheet in a safe and dry place. And keep the small sample bag with the samples in the fridge until you reach land, and can hand them over to Molly Kressler, or one of her colleagues.

I've sampled, now what?

When you get back into the harbour, or when you have cell service, give Molly a call or text at **07956279938**, to arrange collection of the samples, materials, and data sheet.

If you enjoyed the process, or feel theres some room for improvement, please let us know by using this form (scan the QR code with your mobile device, or access it here

using this tiny-url:)

QR code, scan me	url
	<a data-bbox="1010 600 1437 689" href="https://tinyurl.com/feedback-edna">https://tinyurl.com/feedback-edna