



WILDERLAB

eDNA MINI KIT INSTRUCTIONS

This kit contains sterile items for filtering DNA and preserving samples for ambient storage and transport. Please observe the following precautions when using this kit:

Take care when handling the small preservative syringe. This solution is an irritant so always wear nitrile gloves (included) and safety glasses. You can find the safety data sheet at wilderlab.co.nz/shop/minikit/.

Please observe safety precautions at all times while working near the water. Be aware of hazards and please don't take unnecessary risks while collecting samples.

DNA testing is extremely sensitive so try to avoid contaminating the sample. Do not touch the syringes or filter without gloves and be aware of other possible sources of DNA contamination (e.g. hair, pets, food, gear, etc).

If entering flowing water, water should be collected while facing upstream to avoid carryover DNA on waders/boots from previously sampled sites. Try to avoid entering non-flowing water to reduce the risk of contamination between sites.

On the completion of each sample, record the sample details on the zip-lock sample bag in the spaces provided. Samples are stable at room temperature for several weeks once the preservative has been added. Once all samples are collected, fill out the eDNA analysis request form at wilderlab.co.nz/submit-samples and include a copy with the samples to be sent. Ensure the samples are packaged securely and send them by standard (non-refrigerated) courier to the address overleaf.

Before starting, please ensure the following components are included in each kit:

- 1 x large 60 ml syringe
- 1 x blue disc filter
- 1 x small capped syringe, pre-loaded with preservative
- 1 x pair of nitrile gloves in a zip-lock sample bag

Optional items not supplied:

- Extra long caulking gun with U-shaped terminal end
- Location-enabled phone or tablet or hand-held GPS device
- Fine-tipped marker pen
- Safety glasses

1. Take the gloves out of the sample bag, put them on, and take out the large syringe.
2. Draw up 50 ml of water from just below the surface of the water. Take care not to suck up any sediment from the bottom.
3. Screw the filter on the large syringe **taking care not to overtighten**.
4. Push the plunger down to squeeze the water out through the filter. Avoid getting air bubbles in the filter as they can be difficult to push through.
5. Unscrew the filter from the large syringe.
6. Repeat steps 2-5 until the filter is clogged and water is only dripping out, or until 1L is filtered (20 syringe-fuls), whichever comes first. If using a caulking gun do not force water through too hard or the filter may rupture.
7. Unscrew the filter, draw 50 ml of air into the large syringe, re-attach the filter, and holding the syringe vertically with the filter pointing down, force the air through to squeeze out the remaining water from the filter. Leave the filter attached to the large syringe for the next step.
8. Holding both the large syringe (with filter attached) and the small syringe (with black cap attached) in the same hand and in an upright position, unscrew the black cap from the small syringe and **screw the black cap on to the outlet end of the filter**. See figure (A) below.
9. Unscrew the filter (with the black cap still attached) from the large syringe and screw it on to the small syringe (B-C). Push the plunger to inject the preservative into the filter (D). Shake well while holding the plunger down. **Do not remove the syringe or cap from the filter**. Don't worry if there are air bubbles in the filter or if the plunger springs back – this is normal.
10. Place the filter with both the black cap and small syringe still attached into the clear zip-lock sample bag and seal (E).
11. Record the sample details on the ziplock bag in the space provided. Ensure that the coordinates are entered in WGS84 decimal format (for example -41.30951, 174.82110 as displayed on google maps)
12. Fill out the eDNA sample submission form at wilderlab.co.nz/submit-samples and include a hard copy with the samples.
13. Send the samples by standard courier (no refrigeration necessary) to:

**Wilderlab NZ Ltd
Level 2, 129 Park Road
Miramar
Wellington 6022**

Alternatively, small packages can be sent by post to

**Wilderlab NZ Ltd
PO Box 15059
Miramar
Wellington 6243**

