# What to sample?

River water (or water from creeks).

## Where to sample?

→ Near the river mouth but just above the tidal limit. Above the tidal limit is important because seawater with high alkalinity (which could potentially mix with fresh river water near the river mouth) must not bias the value. I will check the salinity of the sample to verify the absence of seawater.

 $\rightarrow$  Try to take the sample from a **faster flowing part of the river**, not from a pond at the side where water stands still.

### How to sample?

 $\rightarrow$  Carefully **flush the sampling syringe** with river water before taking the final sample. Make sure you hold the syringe upstream of yourself so that you cannot contaminate the sample.

 $\rightarrow$  Fill the syringe with the final sample and attach the syringe filter (0.22 µm Nylon). Avoid larger air bubbles in the syringe as they impede the filtration.

→ Open the plastic sampling beaker. It should be **clean and dry inside** (ideally opened for the first time).

→ Push approximately 10 mL of sample through the filter into the plastic sampling beaker. **Rinse the beaker** with this filtered water by closing and shaking the beaker. Discard the 10 mL sample by emptying the beaker (residual droplets are no problem).

 $\rightarrow$  Push the sample through the filter into the sampling beaker. **Try to get at least 60 mL** (beaker full to the top). This may require a second fill of the syringe. For a refill first remove the filter, then pull out the plunger and refill the syringe with new river water. Then attach the filter again and continue with the filtration. Attention: the filtration becomes harder the more sample you filter because of clogging. It can be quite hard in rivers with many particles. Use one filter for one sample.

 $\rightarrow$  Close the lid firmly so that no volume can leak out but do not destroy the beaker.

### How to label the sample

- $\rightarrow$  Label with the provided water-resistant pen.
- ightarrow Note the **date** of sampling on the beaker (Day/Month/Year).
- $\rightarrow$  Note the **river** the sample was taken from (in case of an unknown creek write "N/A").
- $\rightarrow$  Write down the **precise coordinates**. Either use a mobile GPS device or use Google Earth/ google Maps.

#### How to store and further process

- $\rightarrow$  Store the sample in the **dark, in a fridge** (approx. 4°C).
- ightarrow Do not freeze the sample. The sample must never freeze.

 $\rightarrow$  Storage time until analysis should be minimal to avoid sample decay. It should be returned to me as quickly as possible (best within less than 2 weeks).

### How to return the sample

 $\rightarrow$  Sample can be dropped off at the Institute for Marine and Antarctic Studies (IMAS) Salamanca, Hobart.

→ Samples can be sent via post to: IMAS Battery Point, Lennart Bach, 20 Castray Esplanade, BATTERY POINT TAS 7004, Australia.

 $\rightarrow$  Other arrangements can be made via email (Lennart.bach@utas.edu.au).