Diatom Collection Methods

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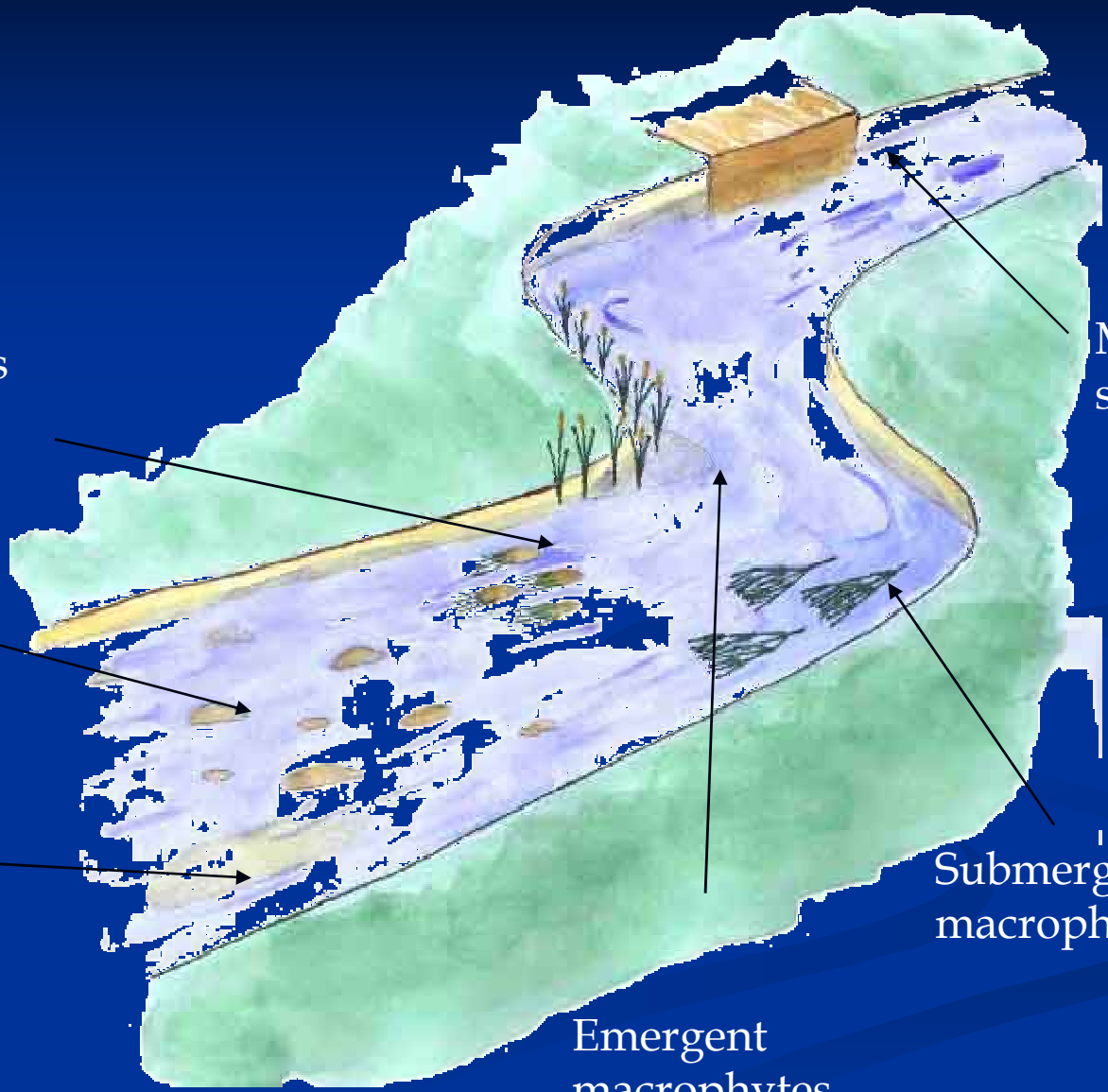
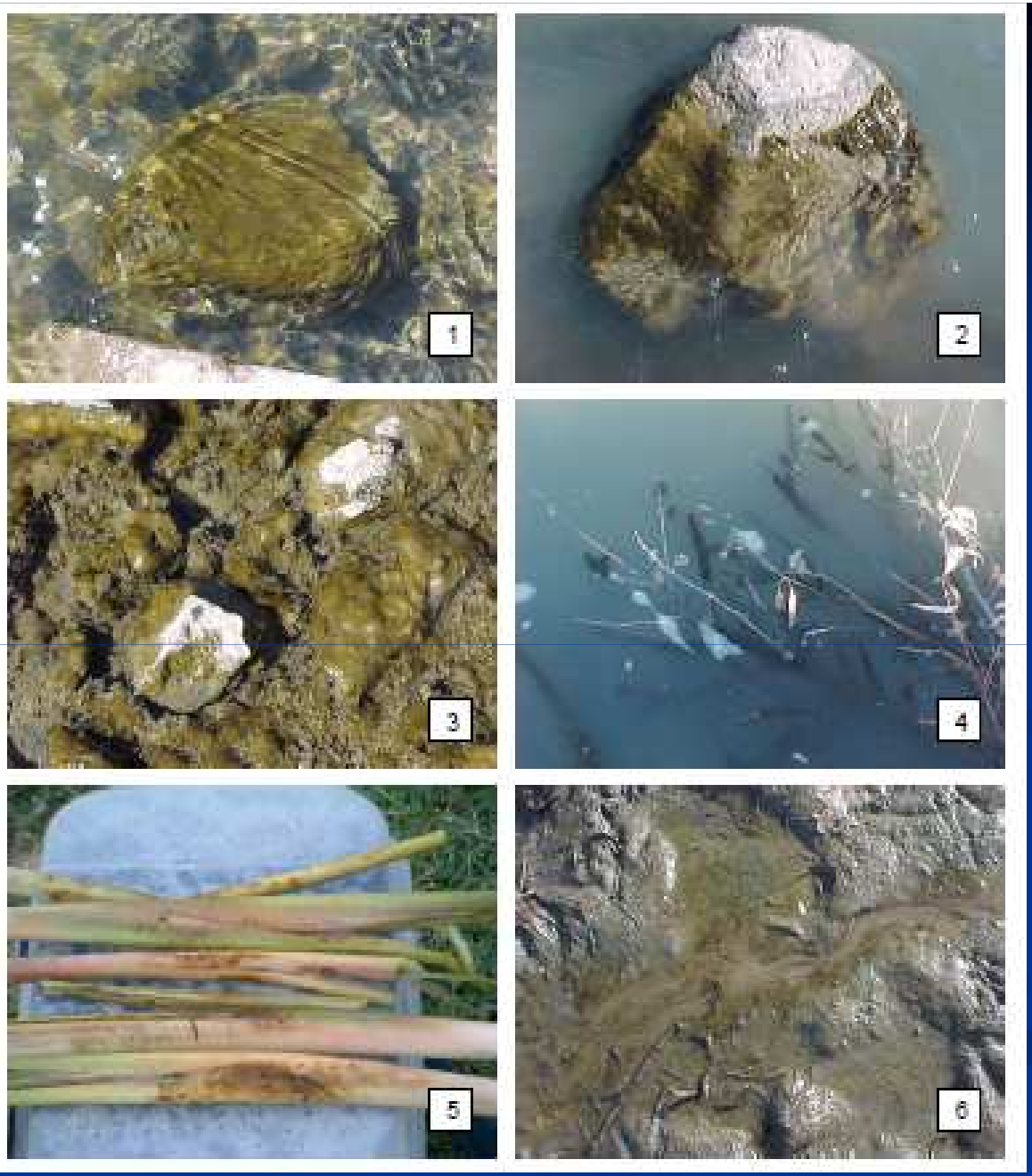
The diatoms can be found growing on many surfaces in water



Source: M G Kelly, DARES

Appearance of Diatoms from Different Habitats



Photos: J C Taylor

Selection of sampling sites.

- Samples can be collected from sites already used for any other surveys (if any).
- Issues that were considered when selecting these sites include:
  - Location with respect to discharges / confluences etc.
  - Access from road
  - Location with respect to other monitoring records (if any) (chemical / macrophyte / birds/ invertebrate)
- Glides, runs and riffles are all suitable for collecting diatom samples but most pools will be too slow-flowing.

When Sampling

- Avoid heavy shade.

- Avoid sampling in deep regions

Selection of substrate

There are three options:

Either cobbles …

Photo: Karthick B

... or macrophytes

Photo: Karthick B

Cobble Sampling

Selection of cobbles

Try to select the stones from different locations within the reach, whilst avoiding the edges and heavily shaded sections.

☹

If no cobbles are available, use small boulders or large pebbles instead. You may need to sample more than five pebbles.

Removing the biofilm

Put a small amount of stream water (about 50 ml) into your tray and then remove the biofilm from the upper surface of the cobble by scrubbing vigorously with toothbrush.

Rinse the toothbrush in the stream water regularly. The water in the tray should take on a brown hue as the biofilm is washed into it.

Removing the biofilm (cont.)

Continue this process for all of the cobbles that you removed from the river. The result should be a dark brown suspension in your tray.

If you are sampling pebbles instead of cobbles, you should sample enough to obtain a suspension that looks like this.

Removing the biofilm (cont.)

The final step is to pour the suspension into a well-labelled bottle. Before pouring, swirl the suspension in the tray so that any settled particles are resuspended.

No need for any preservatives if you are bringing the sample with in a WEEK.

You can also store the samples in your REFRIGERATOR

Photos: Sameer Ali & KV Gururaja

Macrophytes Sampling

Diatom Growth on plant surface are marked

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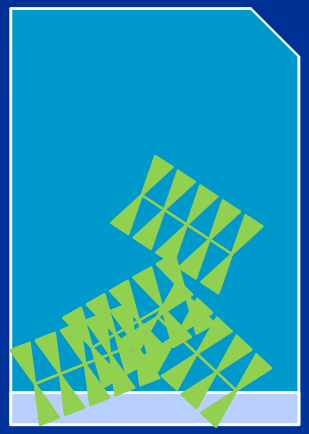
Methods to Collect diatom from aquatic plants

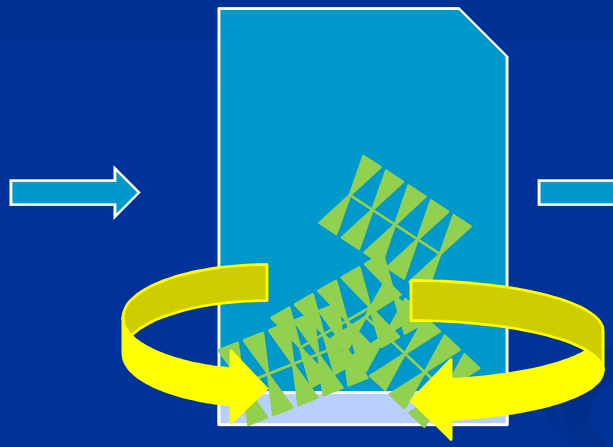
- Look for diatom growth on the plant surface
- After selecting the plant, cut the plant in to many small piece (size of one piece ~15 cm)
- Put all the cut plant parts in to polythene bag with ~30 ml of lake/river water and shake the bag vigorously for about 1 min.
- Remove and discard the plant material from polythene bag and transfer the brown coloured liquid from the bag to the sample container.
- Brown solution contains millions of diatoms!

Diatom Collection from Aquatic Plants

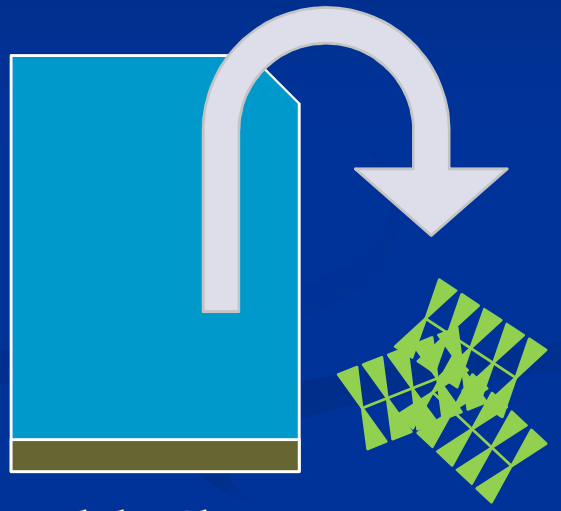
Submerged plant parts



Submerged plant parts in polythene bag with water



Shake it vigorously



Discard the Plant parts

Store the Brown solution in sampling container

If you have any queries please write to

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