

# COLLECTION STANDARD OPERATING PROCEDURE

## PHYTOPLANKTON

### I. Quantitative sampling (counts)

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- Prepare dark glass bottles (250 mL) with 2.5 mL of Lugol's alkaline solution (fixative)
- 250 mL of seawater are collected from the Niskin bottle (Fig. 1b) at each depth
- The sample is disposed within 5 min from sampling in order to avoid the sedimentation of phytoplankton inside the Niskin bottle
- the bottle is to be filled just below the rim to allow some space above

### II. Qualitative sampling and culturing (net)

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- Prepare dark glass bottles (500 ml) with 1 ml Lugol's alkaline solution (fixative)
- The phytoplankton net has a conical shape with a 40 cm diameter mouth and a 20  $\mu\text{m}$  mesh (Fig. 1a).
- At the end of the net there is a plastic collector equipped with a tap.
- Sampling takes place while the boat proceeds at very low speed, dragging the net horizontally at the surface for 3-7 minutes, depending on the transparency of the water.
- The sample collected in the collector is then poured into a plastic bottle (500 ml)
- The net is then rinsed with sea water from the outside to the inside and from the mouth to the collector, in order to recover the phytoplankton attached to the net.
- The collector is emptied again into the plastic bottle.
- After gentle mixing, part of the sample is poured into a 100 ml dark glass bottle containing 1 ml of alkaline Lugol's solution.
- The bottle containing the live sample is kept in a cool place, wrapped in wet paper, until arrival in the laboratory, where it is examined under a microscope within hours from collection.

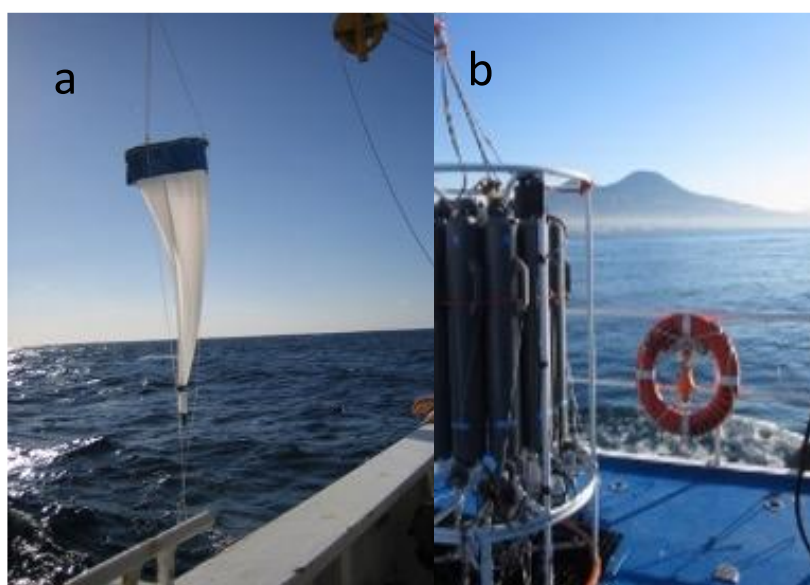


Figure 1 a) Phytoplankton net; b) Niskin bottles