ARMS Processing – Plate subsampling

 Make sure that all the containers and tools used have been bleached and rinsed between ARMS processing. Wear gloves at all times; do not touch the water or the plates with bare skin.

Sessile taxa of interest can be individually subsampled and vouchered for morphological study or DNA barcoding. Doing so can also help with future identification of metabarcoding sequences and plate photo analysis.

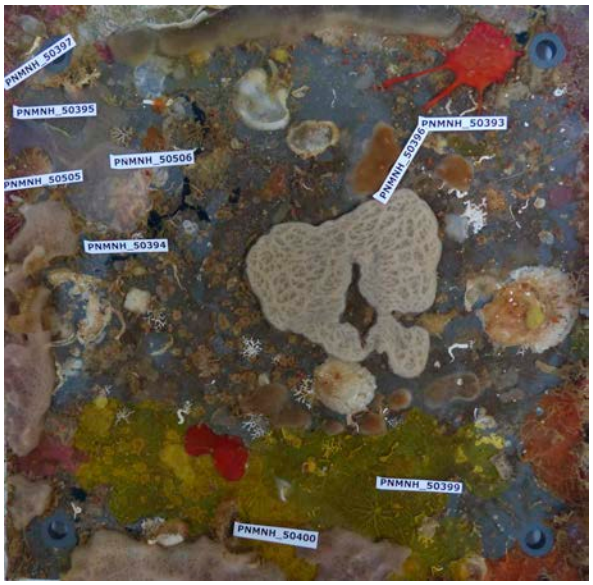
Materials:

- 1 pair of gloves
- Clean photo tray (11″ x 14″) containing filtered seawater
- 3 cups containing 1- 10% bleach, 2- fresh water, 3- 90% ethanol
- 5 tweezers
- 5 scalpels
- Specimen labels
- Field spreadsheet
- 1 maker
- 2 ml vials filled with DNA preservatives (fresh salt saturated DMSO solution, 90% ethanol or RNA later)
- Kimwipes

Procedure:

1. Place the plate #1 in the tray and inspect carefully for sessile species of interest
2. Take several photographs and close-ups of the specimen with and without the specimen label
3. Using the scalpel and tweezers, carefully subsample the specimen avoiding the surrounding organisms and place the tissue sample in a 2-ml vial containing DNA preservative with the specimen label
4. Record the specimen information in the field spreadsheet
5. Place the scalpel and tweezers in the cup containing the bleach for at least 10 minutes before transferring them to the water cup and the ethanol cup for rinsing. Place the cleaned dissection tools on kimwipes.
6. Repeat steps 2 to 5 for all plates of interest

Illustrations:



Sessile taxa of interest are identified on the plate and marked with field number. Respective specimen data are recorded in the field spreadsheet.

Each specimen is photographed and subsampled for subsequent DNA barcoding.