

# SBC-LTER Detritus Collection: Lab Processing Protocol

## *General Notes*

Detritus is defined as organic material found suspended in water. The purpose of Detritus collection is to estimate the biomass of algal detritus found in the benthos at SBC-LTER Long Term Experiment sites. Biomass is determined by measuring wet mass (mg) for each species found.

## **Field Collection**

All detritus found within six 1m<sup>2</sup> quadrats are collected in up to 6 bags. Each bag is labeled and the LTE quadrat survey datasheet should be checked to match the appropriate labeled bag with the correct quadrat number. Samples are brought back to the laboratory, and processed immediately.

## *Processing*

- In a sorting tray, group the contents of each bag by species.
- Any bryozoans/other epiphytes should be scraped off before weighing, large amounts of epiphytes can be dealt with via the give/take estimation method where some epiphytes can be left but similar amounts of plant material need to be left out of the weight measurement
- *Macrocystis* should be separated into three groups: 1. Fronds (SP\_CODE=MAPY) 2. Holdfasts (SP\_CODE=MH) 3. Dead Holdfasts (SP\_CODE= DMH).
- Identify each group to species using all available resources including pressings, books and the SBC LTER Field Guide.
- A list of **common** species codes can be found at the bottom of the processing datasheet, be sure to remember that these are not the only species collected.
- If individuals are too small or deteriorated to accurately identify place the pieces together into a miscellaneous pile.
  - Unidentified species should not be thrown away until a technician tries to identify them.
- Obtain 'SBC LTER Detritus Collection' datasheet. Fill out required information using the label found inside the detritus collection bag.
- Weigh each species group and record mass in 'wet\_wt' column of datasheet. **\*\*Be sure that all pieces of detritus are free of bryozoans and other epiphytes.**
- Once mass is recorded all detritus can be discarded. No drying is necessary.
- Repeat for all bags.
- If a sample is started and cannot be finished put sorted individuals in a smaller mesh bag and place inside the original detritus collection bag. Put all contents back into seawater flow room.

NOTE: Check algae presses for help with any unidentified species. List of species on the bottom of the data sheet does not have all possible species.

**\*\*\*Once sorting is finished, or finished for the day. Discard any trash bags with detritus outside. Please do not leave rotting algae overnight\*\*\***