

LIVE MARINE ANIMAL HANDLING PROTOCOL FOR PROGRAM USE

This protocol is for the handling and care of live marine invertebrates and associated supplies used in all programs. Any necessary updates and reports should be addressed to the Program Coordinator of respective program.

Supplies

Step Stool
Hand nets
Aquaria + Lids
Aerators
Home Depot buckets and coolers as needed

Animal & Tank Assessment

Asses health of animals prior to selection

- o Sign of stress include: immediate defense mechanisms, unusual/slower behavior, physical appearance
- o Report major health concerns to Program Coordinator

Check water level, report to Program Coordinator if:

- o Foaming/bubbling on top of tank, loud gurgling sound, warmer water temperatures or any unusual conditions

Animal Selection

Select animals needed for program & regularly rotate animals in use

Use hand nets to retrieve the following: Brittle stars (found under rocks), sea cucumbers, hermit crabs, small snails, mussels & most free-moving animals

- o For sea snails & limpets: Cup hand over animal & gently twist to release suction. If animal does not easily come off, select a new animal. Hand nets may be used for wavy-top snails.
- o For sea urchins: Sea snail approach can be used with light grip of finger tips, or a yellow paint scraper can be used to gently lift the sea urchin from its' grip. Hand nets may be used, but should be done so lightly as it can cause damage to spines.
- o For chiton: Chiton can typically be found on rocks. Leave in place and use entire rock for program observation.

Place animals in individual aquaria + lid and stage submerged in tank until ready for program use.

- o Once removed from tank, an aerator must be added to each aquaria.
- o During program rotations, animals in aquaria should be placed back in the tank during transitions to maintain water temperature.
 - If students were touching animals, **drain water prior** to placing aquaria back in tank.

Off-Site Programs & Animal Transport

Supplies needed:

- o large cooler with wheels (3-4 aquaria can fit in 1 cooler)
- o towel (to place on top of aquaria in cooler, helps with insulation and water absorption)
- o Aerators, 1 per aquaria and extra D-batteries

Select animals best suited for stress of transport – sea snails & hermits are the ideal options.

- o Sort animals into aquaria by size and species
 - Do not mix big hermits with small hermits, they will get eaten
- o Leave aquaria half-filled with water (or less as needed)

If programs off-site will run longer than 2 hours, water will need to be refreshed in aquaria to maintain optimal temperature for animals.

- o Warmer weather will need more frequent refreshing.

Animal Storing

All animals must be put back to their respective tanks – if applicable

- o Small Hermits and Small Snails are separated by size and stored in small aquaria within the large tank (1st grade program)

Gently use hand nets/hands to release animals back in tanks

- o Place animal in hand net, lower to bottom of tank and slowly release

If an animal (i.e. limpet) is difficult to remove at the end of day, the aquaria can be left topless in the tank over night for animal to remove itself and action must be communicated to the Program Coordinator.

- o The empty aquaria must be removed, rinsed and stored the next day by the respective Program Coordinator.

Clean Up

All supplies that come in contact with saltwater must be rinsed with freshwater

General tank supplies can be left in the Aquaria supplies in Transitional Storage

- o Hand nets, buckets, feeding tools

Program specific items should be rinsed, dried & stored in respective bins

- o Do not mix IS/OS Supplies, so all programs can have what they need when they need it