**PROTOCOL FOR COLLECTING AND PRESERVING CORAL SAMPLES**

Written by M. Studivan

Updated: 05/24/22 M. Studivan

**Before the dive:**

1. ~~Prepare zip-top sample bags: 5 bags per cable tie, labeled consecutively using alphabetical scheme.~~
2. ~~Pre-label sampling tubes containing Zymo DNA/RNA Shield preservative using consecutive numbers.~~
3. Prep mesh dive bags with sampling supplies: hammers, chisels (in zip-top bags so they do not fall through the mesh), enough pre-labeled zip-top bags on cable ties plus extra, camera, and dive slate/data sheet.
4. Prep topside sampling station for post-dive sample processing (cutting board, pre-labeled and pre-filled sample tubes, hammer, chisel, forceps, ethanol for cleaning).

**During the dive:**

1. Record site/dive/dive team metadata on top of data sheet.
2. Species of interest: *Orbicella faveolata*, *Montastraea cavernosa*, *Pseudodiplora strigosa*, *Pseudodiploria clivosa*, *Colpophyllia natans*
3. Take a top-down photo of each colony before sampling.
4. Wearing gloves, take ~1 cm2 tissue/skeletal scrapes from the top of the colony using a hammer and chisel. Place each colony sample into a separate, labeled zip-top bag.
5. Record sample metadata (species, depth, time, bag number) on data sheet.
6. Wipe any mucus off gloves and chisel, then repeat for all remaining colonies.
7. Clip all sample bags and the dive slate back into the mesh bag, then hand off to topside support when surfaced.

**Back on the boat:**

1. Clean cutting board and forceps with ethanol.
2. Remove samples one at a time from zip-top bags and place on a clean section of a cutting board.
3. Use hammer, chisel, and/or forceps to break the sample into fragments that can fit into a sample tube with matching sample number.
4. Clean the forceps in between samples, and use a new, clean section of cutting board for processing remaining samples (when the entire surface is dirty, clean with ethanol or seawater).
5. Take a photo of the completed data sheet.
6. Store preserved samples at 4°C or colder. Transport with ice packs.