

MARINe Vouchering Plan
Overview of Field Sample Collection and Processing Protocol

- Easily accessible haphazardly selected individuals of each species are collected within the boundaries of the MARINe site but outside of any long-term monitoring plots.
- Specimens are identified by the leader of the team that conducts long-term monitoring at the site.
- The collections are intended to focus on “typical” representatives of a given species, as defined by the sampling team that conducts long-term monitoring at a site. Organisms with unusual morphology are not sampled.
- Specimens are collected by members of the California State University Fullerton team (with all relevant permits and permissions).

INVERTEBRATE SPECIMENS: up to 12 individuals / species.

- Small and medium-sized individuals are targeted for collection: the largest individuals in a population are not sampled.
- For most invertebrates, the whole organism is fixed in 95% EtOH in the field: up to six individuals are fixed in individual containers (for later DNA extraction), and up to six are fixed as a group (for morphological records). For *Anthopleura sola*, tentacles are excised in the field and fixed for DNA extraction (no whole organisms are collected). For *Mytilus californianus* and *Anthopleura elegantissima*, individuals for morphological record are returned to the laboratory and relaxed in a solution of Epsom salts before fixation.
- Samples designated for DNA extraction are preserved in 95% EtOH.
- Samples designated for morphological record are preserved in 75% EtOH.

MACROPHYTE (seaweed and surfgrass) SPECIMENS: up to 6 individuals / species.

- Portions of individuals are removed and returned to the lab for processing.
- Specimens are pressed on herbarium-grade paper.
- A portion of each individual is air-dried and preserved in silica gel for later DNA extraction.

For specific procedural details or more information, contact Jennifer Burnaford (jburnaford@fullerton.edu)