| Coral Polyp Sizing and Counting | |
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| Prepared by: | Bahr Marine Ecology Lab |
| Last Updated: | December 2022 |
| Safety Precautions: | |
| * Required PPE – Enclosed shoes, gloves | |
| Purpose: | |
| * To determine the size of polyps on coral skeletons | |
| Materials: | |
| * Ruler * Electronic Caliper * Bright Light/Photobooth * Camera | |
| Coral Polyp Counting and Sizing: | |
| *Note: Before beginning, lay out the samples in chronological order for the season. Set up the photobooth or bright light so that it shines on the work area. Sometimes the small polyps are hidden in the crevices of the larger polyps and the light will help to ensure a polyp isn’t missed while counting.*   * To count the number of polyps on the sample, find a landmark on the coral sample (ex. A discolored spot on the skeleton) and beginning counting the polyps in a clockwise manner. * Recount the polyps to double check the number, especially if the coral sample is larger and has more polyps. * Once the number of polyps is finalized, relocate the first polyp that was counted. * Using the electronic caliper, measure the size of the first polyp on the outside of the skeleton at its longest diameter. This is the length of the first polyp. * Take another measure of the first polyp at its shortest diameter. This number is the width. * Repeat steps 4 and 5 until all the polyps’ lengths and widths have been recorded. * Use the camera to take a picture of the sample in the photobooth up against a ruler for size reference. Make sure to include the bag that the sample is being stored in, so the coral sample number is easily identifiable in the photo. | |
| Quality Assurance and Control: | |
| *Proper Training*  Proper protocols and training must be implemented to ensure the quality of data generated in the laboratory. Researchers must ensure that all equipment is accurately calibrated, inspected, and maintained according to the manufacturer’s instructions.  *Data Review*  All laboratory data will be reviewed for completeness and transfer errors. Data will be reviewed by a second individual after entry into Excel spreadsheets by comparing the entered, electronic data to the original records (e.g., hand-written datasheets or laboratory notebooks). Data will be summarized as descriptive statistics and in tabular and graphical form to allow visual inspection and verification, and comparison to expected or target values.    *Data Verification*  Data will be checked for compliance with the procedures outlined in the SOPs. Any deviations from those procedures and the impact on the quality of the data will be assessed and discussed with Task Members. Any laboratory data outliers will be flagged.    *Data Validation*  Once the data has been reviewed and verified, it will be assessed to determine the overall acceptability of the objectives of the project. Blank samples, such as water quality testing, will be used to determine any biases or instrument calibration issues during the sample collection and analysis processes. Control samples will be used to determine the condition of the experimental test specimens in the absence of experimental treatments or exposures. Any errors in datasets detected will be discussed with lab members and project leads to determine the impact on the data and its use for the project. If there are any limitations to the data, they will be disclosed as part of the published literature. | |