

Florida Department of Environmental Protection
Coastal and Estuarine Bioassessment Methods Development
Fall 1998 Technical Workshop Series Summary Report

Introduction

The Florida Department of Environmental Protection is in the process of selecting and developing methods to help the department assess the condition of Florida's estuarine and coastal waters. The effort is part of an overall program with the goal of assessing, monitoring, and regulating the water quality of the freshwater and saltwater resources of Florida, with the intent of protecting their biological communities.

Past efforts have documented the cost effectiveness of using the biological community as a primary indicator of water quality problems. As part of the methods-development effort, a series of workshops was initiated in the Fall of 1998 to identify sampling methods for five indicator groups: benthic macroinvertebrates, fish, submerged aquatic vegetation (SAV), corals, and phyto/zooplankton. Note that the coral and SAV workshops in this series were intended to examine use as indicator organisms, not as habitats.

A Chair was identified for each of the workshops, who then selected a Core Group to help organize and run the workshop and to develop a list of participants.

Three of these workshops have been completed (benthic macroinvertebrates, SAV, and corals). It was concluded by the FMRI staff responsible for the fish workshop that a telephone survey was a better means to obtain the fish information. The phyto/zooplankton workshop is still planned but has been delayed by red tide and other harmful-algae-related events and the workload resulting from these events.

The workshops were charged with examining methods whereby their indicator group could be sampled to provide information regarding the degree to which the surrounding biological community is impaired by human activities. The products of the workshop were to include:

- Σ a summary of any workshop presentations;
- Σ a list of candidate methods for sampling the indicator group and the factors affecting them;
- Σ judgements as to the readiness of those methods for inclusion in a statewide program;
- Σ identification of where methods do not exist and need to be developed;
- Σ identification a small group of people as an advisory group to bring the workshop information and expertise in the indicator group to subsequent habitat-based workshops; and
- Σ a list of workshop attendees with contact information

This document summarizes the three workshops that have taken place. Some workshops chose to somewhat expand the scope of their effort, to the benefit of their effort. This expansion is reflected in the contents of their full reports, which are attached. A summary table at the end of this document, with information about methods suggested for the indicator groups, includes the readiness of these methods as well as the type of data they yield.

Results

An valuable outcome of the workshops was the utility of considering methods as fitting into one or more of three types:

- Absolute—information about the relative condition of the indicator is produced by a single measurement
- Relative, spatial— information about the condition of the indicator is produced when measurements are compared to others taken at different locations (e.g., at a control site).
- Relative, temporal—information about the condition of the indicator is produced when measurements are compared to others taken at different times.

The existence of a suitable suite of absolute methods for sampling a particular habitat might allow determining the status of a community from a one-time sampling