Module 1: Mapping and Surveying Intertidal Habitats

Shorekeepers' Guide for Monitoring Intertidal Habitats of Canada's Pacific Waters

Fisheries and Oceans Canada | Pêches et Océans Canada

Canada

Module 1: Mapping and Surveying Intertidal Habitats

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INTRODUCTION

WELCOME to the Shorekeepers' Guide, Module I: Mapping and Surveying Intertidal Habitats.

WHAT IS A SHOREKEEPER SURVEY?

Surveying is mapping and documenting the plants and animals in these habitats. The intertidal zone – the area between the higher high water mark and the lower low water mark – is the Shorekeepers' area of interest. But the Shorekeepers' survey also includes a description of the backshore, the area from the higher high water mark away from the shore for 20 m. This backshore area may have significant influence on the intertidal zone, due to human impacts there such as modified water runoff.

If a study area is surveyed once, it is inventoried, and a snapshot of its ecology is obtained. If a study area is surveyed at least twice, it is monitored, and changes in the ecosystem can be recorded and causal factors may be identified. For a good look at what is happening in an area, it should be surveyed every year at the same time for 3 to 5 years or longer, so that small year-to-year changes (which are to be expected) can be separated from longer term changes.

WHEN SHOULD A SURVEY BE DONE?

In British Columbia, surveys are usually done between April and October. June, July, and August are the optimal months, because low tides occur during daylight. Just like on land, marine plant and animal abundance and diversity change with the season. If a study area is to be monitored over a number of years, then it should be surveyed at the same time each year so that organisms are at the same stage in their life cycles. In this way any changes that are seen on the shore may be attributed to something other than normal seasonal changes in plant and animal populations.

HOW IS A STANDARDIZED SURVEY DONE?

A standardized survey should be done by a group of people working as a team. The Shorekeeper surveying and mapping

Time Commitment/Year:	2 Days
No. of People:	5 to 6/Survey team
Time of Year:	Spring or summer
Training/Study Area:	Yes

course should be taken by at least one member of the survey team. This person should act as the leader to ensure that all aspects of the survey are completed correctly. Although we use words like "standardized" and "rigorous", and although this manual may seem complicated, the survey process is broken down into easily understood steps that are grouped into logical tasks. There are 34 Steps. Listed below are the **seven tasks** in a survey.

PREPARATION

Task 1: Getting Started

Task 2: Preparing for the Survey Day

CARRYING OUT THE SURVEY

Task 3: Defining Study Area Boundaries and Components

Task 4: Mapping the Study Area

Task 5: Documenting Physical Features of Each Habitat

Task 6: Documenting Plants and Animals in Each Habitat

Task 7: Surveying the Backshore Zone

The standardized survey has four data forms that must be completed.

Form 1: Study Area Description
Form 2: Survey Description
Form 3: Habitat Unit Description
Form 4: Sketch Map

WHAT HAPPENS AFTER THE SURVEY IS DONE?

When all data forms have been completed, the data must be entered into the Shorekeepers' Database and the data forms must be submitted to DFO. The DFO representative can advise you about entering the data yourself.

What follows in this module is the step-by-step procedure for doing a survey and completing the data forms.