EcoSystem Indicator Partnership
Information on change in the Gulf of Maine

The EcoSystem Indicator Partnership (ESIP): Fact Sheets

ESIP, formed as a committee of the Gulf of Maine Council on the Marine Environment, is made up of expert advisors and volunteers from 73 organizations in the U.S. and Canada who provide information for a web-based reporting system for marine ecosystem monitoring.

The first of eight planned fact sheets – four have been published already by ESIP – describes the partnership itself, lists the organizations represented by advisors and volunteers and explains how ESIP was established in 2006 and explains the meaning, use and method of choosing the indicators.

Subcommittees to ESIP selected 22 priority indicators to be used as a first step in assessing overall ecosystem health in the Gulf of Maine. Besides this first explanatory fact sheet, areas chosen as focus areas include the three already published – Aquatic Habitats, Climate Change and Aquaculture – as well as future fact sheets on Coastal Development, Contaminants, Eutrophication and Fisheries.

Each focus topic uses several of the 22 selected indicators, compares them to standards and targets in the states and provinces, and points out trends, or whether a cause and effect relationship exists.

This paper also explains how focus areas were chosen and how indicators for each focus areas interact with and affect the others. For instance, climate change indicators such as precipitation, directly influence aquatic habitats indicators, such as the extent of eelgrass, which the affects fisheries indicators such as production density.

Aquaculture in the Gulf of Maine

The Aquaculture fact sheet focuses on 13 farmed species throughout the Gulf, using economic value and the acreage of permitted aquaculture sites as indicators. The paper also discusses the effects of climate change and the environmental effects of bivalve shellfish culture.

This paper also points out how different regulations from one state or province to another have shaped the growth of the industry, which is a dominant industry in some parts of the Bay of Fundy.

Integrated, multi-trophic aquaculture (IMTA) includes sustainable diets that utilize extractive species and excess nutrients to feed the animals. the paper states that IMTA has the possibility to fulfill the need for sustainable aquaculture, which "should be ecologically efficient, environmentally benign, product-diversified, profitable and beneficial to society."

The 13 dominant species included in the paper are: Atlantic salmon, bay scallops, blue mussels, cod, Eastern/American oysters, Eropean oysters, giant sea scallops/sea scallops, halibut, quahogs, rainbow trout, soft shell clams, surf clams and urchins.

The economic value of various finfish and shellfish to the different states and provinces varies by species and jurisdiction, and many fluctuate for various reasons, but the industry as a whole provided an overall value to the Gulf region in 2008 of $247.4 million US ($263.75 CN).