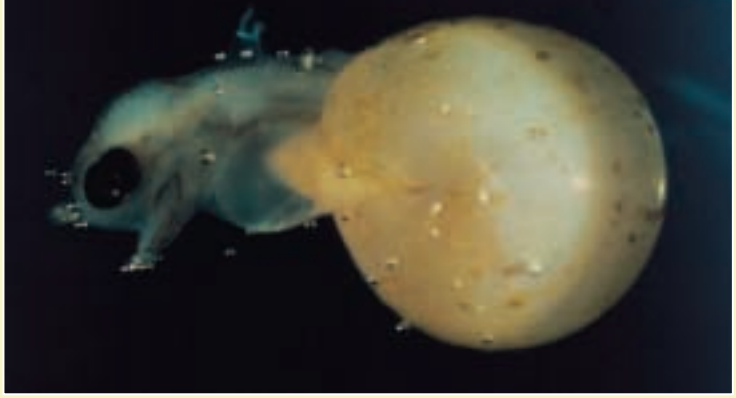
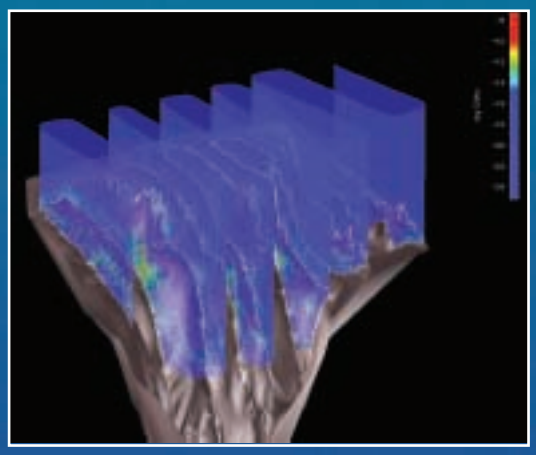
Protecting the Marine Environment



above: Larva emerges from its egg



3-D display of a two-hour acoustic survey of widow rockfish. The shoal was located at the edge of the continental shelf off the northwest coast of Vancouver Island at approximately 150 m bottom depth. The total biomass of the shoal was estimated to be 2,000-3,000 t. The blue curtain represents the vertical path of the acoustic beam.

With the longest coastline and the second largest continental shelf in the world, Canada has an abundance of ocean resources. Our coastal and offshore marine ecosystems are home to a remarkable diversity of species including marine mammals, fish and a variety of invertebrate species and plants.

Managing our oceans in the 21st century

Along with this coastal endowment comes the responsibility to manage the marine environment responsibly for future generations. Our ocean resources face increasing and competing demands as well as threats from unrelated human developments, not only along and adjacent to the coast but also from global changes originating thousands of kilometres away.

Canada's Oceans Act gives the Department of Fisheries and Oceans (DFO) the power to address the numerous challenges and economic development opportunities facing our coasts through the development of an Oceans Strategy. This Oceans Strategy will outline how Canada will manage its oceans in the 21st century.

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Integrated Management

Over the past century, agencies involved in managing oceans activities have been typically focussed on single species or activities affecting the environment. Now, under the Oceans Act, Canada is adopting an integrated approach to the management of its ocean-based activities.

Integrated Management is a way of managing natural resources that integrates economic, social and environmental objectives. Its goal is to ensure that development occurs in a sustainable manner by conserving biological diversity and maximizing socio-economic benefits. The fishing industry, whose future depends on a healthy resource, is a key partner in this management process.

Integrated Management is about balancing protection and conservation with multiple-use objectives. It provides a proactive, forward-looking framework for addressing issues related to conservation and sustainable development before these issues reach a conflict stage.

Salinity testing

Marine Protected Areas

The establishment of Marine Protected Areas (MPAs) is another component of the Canadian Oceans Strategy. Marine Protected Areas are areas of the sea used to conserve and protect marine resources and marine habitats. MPAs may be established for a number of reasons including the conservation and protection of:

- commercial and non-commercial fishery resources such as marine mammals and their habitats;
- endangered or threatened species and their habitats;
- unique habitats; and
- areas of representative biodiversity or biological productivity.

MPAs can play a role in the conservation and protection of commercial and non-commercial fishery resources and their habitats, marine ecosystem conservation and protection, and emergency care. However, many fisheries, if prosecuted responsibly in accordance with a precautionary approach and sustainable development principles, will continue in these sites.

Currently designated as an MPA is Race Rocks, just off the southern-most point of Vancouver Island. Other areas being investigated as potential MPAs include Sable Gully off the Atlantic coast as well as the Endeavour Hot Vents and the Bowie Seamount areas off the Pacific coast.

Marine Environmental Quality

Marine Environmental Quality (MEQ) is a DFO program that monitors the health of Canada's marine ecosystems by assessing climate change, natural catastrophes, man-made pollution and the use of marine resources. This information will generate understanding, appreciation and participation for the sustainable development of marine ecosystems. Rather than aiming at a single natural resource, MEQ addresses the health of ecosystems as a whole.