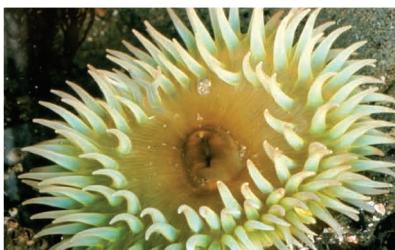




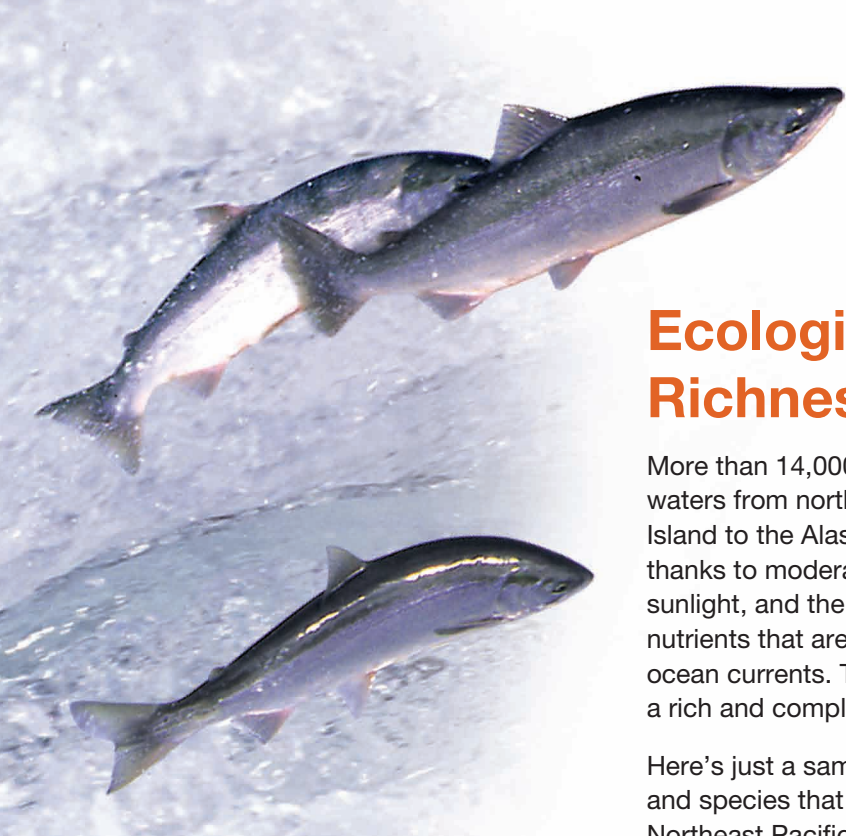
*for a living planet*®

**rich, complex, unique**

this region of BC supports one of the most productive marine environments in North America



Northeast Pacific  
Marine Region  
Fact Sheet #1



## Ecological Richness

More than 14,000 species live in the waters from northern Vancouver Island to the Alaskan panhandle, thanks to moderate temperatures, sunlight, and the abundance of nutrients that are churned up by ocean currents. Together, they create a rich and complex ecosystem.

Here's just a sampling of the habitats and species that make up the Northeast Pacific Marine Region.

### Rock reefs:

In the dynamic ocean environment, rock reefs – formed from bedrock and boulder rubble – provide a stable habitat for a colourful and complex web of life. You'll find pink encrusting algae and hydrocorals, purple anemones, and red sea urchins, as well as lingcod and rockfish.

### Orcas:

These black and white “killer whales” are the largest members of the dolphin family. They feed on seals, dolphins, fish and birds. Three different types of orcas swim these waters: resident, transient and offshore.

*The northern giant kelp grows up to 30 metres long – one of the largest and fastest-growing plants in the world.*

### Kelp forests:

Kelp forests are among the most beautiful and biologically productive habitats in the ocean. They are as productive as tropical rainforests and provide a home for rockfish, salmon, lingcod, sea urchins and marine mammals.



### Oolichan (smelt family):

This little fish has so much oil in its body that if you dry it and attach a wick, you can burn it like a candle. Oolichan (pronounced OO-le-kon) live in the ocean but return to rivers and streams to spawn each spring. They are an important source of food for halibut, whales, sea lions and birds, as well as for First Nations. Many First Nations groups celebrate the start of a new year when the oolichan return.

### Eelgrass beds:

Eelgrass is a flowering plant with blades that can grow up to two metres long, slowing down the currents and waves to create a calm space for small young creatures. Their roots stop sand and loose sediments from washing away and offer shelter for marine animals.

*As much as 80% of all commercially important species need eelgrass beds during some part of their lifecycle.*

### Connections:

The richness of the ocean is directly linked to the richness of coastal forests. When salmon return inland to spawn and die, black bears, grizzlies, wolves and eagles gorge on the fish. Salmon carcasses are dragged into forest, where they provide nutrients for many plant and animal species.

## Economic Importance

Marine activities are big contributors to BC's economy, representing 4.5 percent of the total provincial gross domestic product (GDP). All along the coast and for kilometres inland, people depend on the marine ecosystem for a living, directly or indirectly.

## Fishing:

BC's wild marine fisheries employed 14,000 people and generated almost \$1,340 million in 2001. Salmon, halibut and herring are the main catches, although groundfish such as rockfish, sablefish, sole and hake are also important. The thriving shellfish industry includes geoducks, shrimp, prawns, crabs, and sea urchins.

**Marine activities contribute twice as much to the provincial economy as mining or forestry.**

## Finfish aquaculture:

The salmon farming industry contributed \$364 million to BC's economy in 2001.

## Shellfish & other mariculture:

Farming marine organisms – including oysters, clams, scallops and kelp – is a growing industry in BC that had a wholesale value of \$20 million in the year 2000.

## Oil and gas:

Offshore oil and gas exploration and development has been proposed as a way to create employment and spinoff benefits, bring new investment to BC, and generate royalties for the province.

## Tourism & recreation:

Cruise trips, sport fishing, pleasure boating, and nature-based tourism all attract visitors to the coast. In 2001, marine tourism contributed \$182 million to the provincial GDP, while sport fishing added \$134 million.

## Shipping & transportation:

BC has a large shipping industry due to its ice-free, deep-water ports and its strategic location on the Pacific Rim. Vessels load and unload at more than 100 ports along the province's 29,000 kilometres of coastline.

**The Port of Prince Rupert is North America's shortest and most efficient land-sea route to Asian markets.**

# Ecological Importance

In addition to its rich resources, the ocean provides us with essential life services. For example, 70 to 90% of the oxygen we breathe comes from the world's oceans, courtesy of phytoplankton and algae. These tiny, single-celled organisms also transform the sun's energy into food for bigger creatures.

The ocean is responsible for the temperate weather along the coast, and it absorbs carbon dioxide, helping to control climate change. It is difficult to put a price on these services, but we rely on them every day.

# Cultural Richness

Humans have depended on this marine environment for over 12,000 years. Evidence of aboriginal civilizations in British Columbia comes from 10,000 BC. Since those ancient times, salmon have been the cornerstone of the culture and economy of coastal First Nations, thanks to their large numbers and the predictable way they return to spawn each year. The ocean also provides halibut, rockfish and other fish, shellfish, seaweed, and whales. Not far from the shore, the coastal forest offers many kinds of berries and edible roots.

**The ocean provides 90% of protein in the traditional First Nations diet.**

This abundance allowed First Nations to build the Big Houses and develop the ceremonies and art for which they are famous. Even after Europeans arrived, salmon continued to be the base for success and development, providing an essential resource that allowed coastal communities to flourish and BC's active fishing culture to develop.

Today over three-quarters of British Columbians – roughly three million people – live on or near the coast. There are over 45 communities made up of a multitude of races and cultures, including 17 First Nations groups and individuals from over 50 countries. For all of these people, regardless of their histories and background, living near the ocean has bred a coastal culture unique to British Columbia.

## Definitions

*Ecosystem: a living community that depends on each member and its surrounding non-living environment.*



If we want our children and our grandchildren to have lasting, well paying jobs, if we want them to live in thriving communities, and if we want them to be able to enjoy this unique natural heritage, we need to create sustainable solutions. The future will be formed from the choices we make now.

Everyone who lives in this region has a stake in what happens. Speak up about how you want the future to unfold.

# this region deserves a vision for the future



If you want to help shape  
a vision for the Northeast  
Pacific Marine Region, or if  
you want more information,  
get in touch with us:

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## WWF Mission

WWF's mission is to stop the degradation of the planet's natural environment and to build a future where humans live in harmony with nature by:

*Conserving the world's biological diversity;*

*Ensuring that the use of renewable natural resources is sustainable;*

and

*Promoting the reduction of pollution and wasteful consumption.*

## Donor recognition

Thank you to the following generous supporters who make our Pacific marine conservation work possible:

Government of Canada  
- Fisheries and Oceans Canada  
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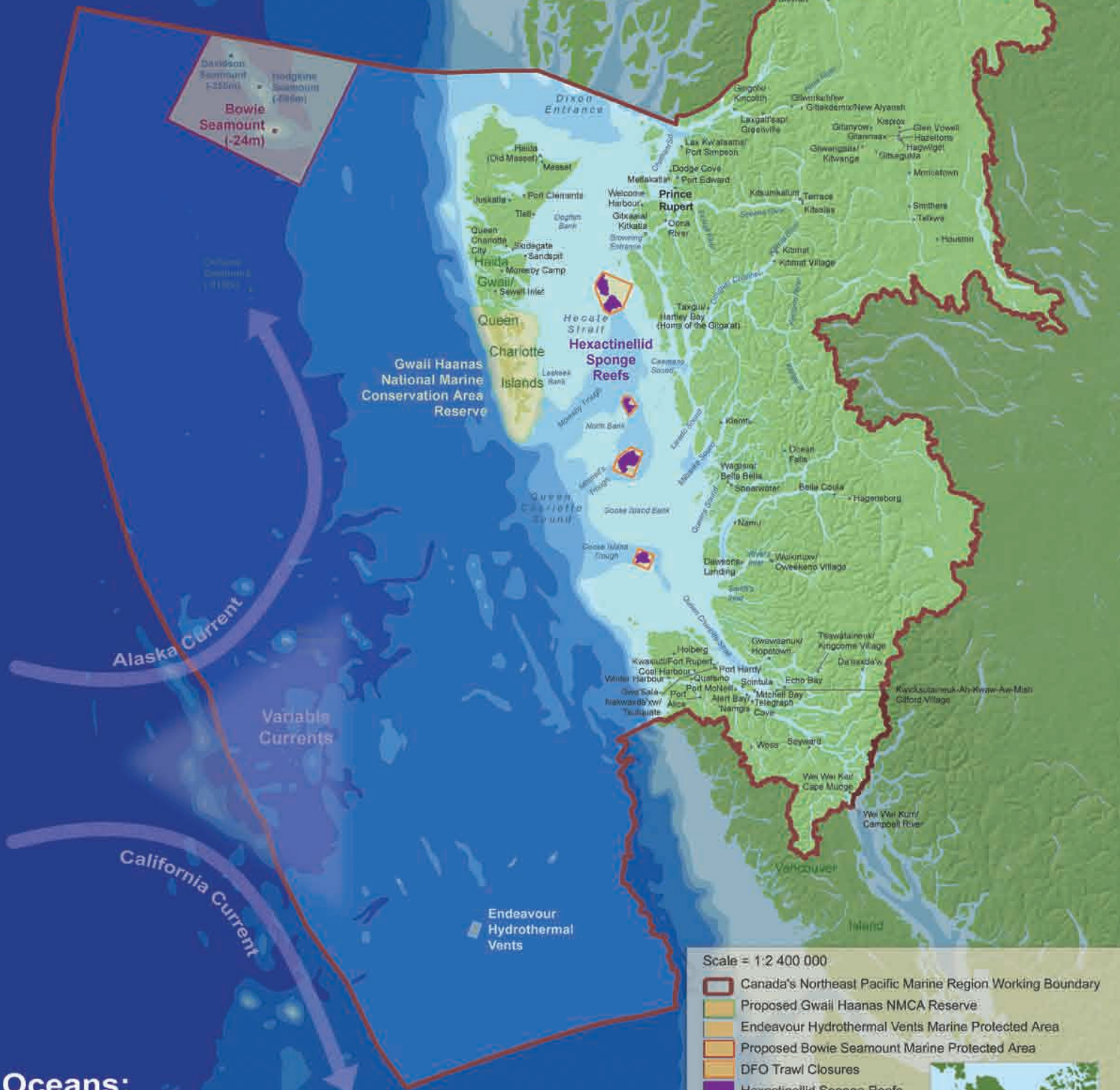
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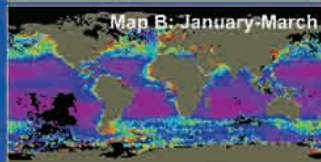
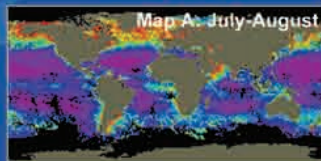
# Canada's Northeast Pacific Marine Region



## Oceans: a hotbed of activity

Tiny marine phytoplankton and larger algae capture energy from the sun and turn it into food for other creatures. This essential process, known as primary productivity, also produces most of the life-giving oxygen in our atmosphere. Without it, life as we know it would not exist today.

The coast of British Columbia is a hotspot of primary productivity, shown in red on maps A and B. Even in the winter (map B), primary productivity slows down but still continues.



Scale = 1:2 400 000

- Canada's Northeast Pacific Marine Region Working Boundary
- Proposed Gwaii Haanas NMCA Reserve
- Endeavour Hydrothermal Vents Marine Protected Area
- Proposed Bowie Seamount Marine Protected Area
- DFO Trawl Closures
- Hexactinellid Sponge Reefs

Depth

- 200m
- 201-500m
- 501-1000m
- 1001-2000m
- 2001-3000m
- 3001-4000m

Maps © WWF-Canada. Data sources used in this map include the following: bathymetry from the Canadian Hydrographic Service; additional water body data and populated places from DMTI Ltd.; North American landmass and hillshade data from ESRI Ltd.; sponge reef locations from Natural Resources Canada (2002); trawl closures, Endeavour Hydrothermal Vents Marine Protected Area and proposed Bowie Seamount Marine Protected Area boundaries from Department of Fisheries and Oceans; proposed Gwaii Haanas NMCA Reserve boundaries from Parks Canada. Ocean colour maps courtesy NASA/GSFC. This map is in the North America Lambert Conformal Conic projection.