

**THE INTERNATIONAL CORAL REEF INITIATIVE - INTERNATIONAL
YEAR OF THE REEF – contributed by Francis Staub,
IYOR Coordinator (<http://www.iyor.org>)**



Background information

Ten years ago, 1997 was declared the International Year of the Reef (IYOR). The first IYOR campaign was initiated in response to the increasing threats and loss of coral reefs and associated ecosystems, like mangroves and sea grasses. IYOR 97 was a global effort to increase awareness and understanding of coral reefs, and support conservation, research and management efforts.

IYOR 97 proved to be very successful, with over 225 organizations in 50 countries and territories participating, over 700 articles in papers and magazines generated, hundreds of scientific surveys undertaken, and catalyzed conservation and policy initiatives, as well as numerous local and global organizations dedicated to coral reef conservation. More information on IYOR 97 can be found here: <http://www.publicaffairs.noaa.gov/coral-reef.html>

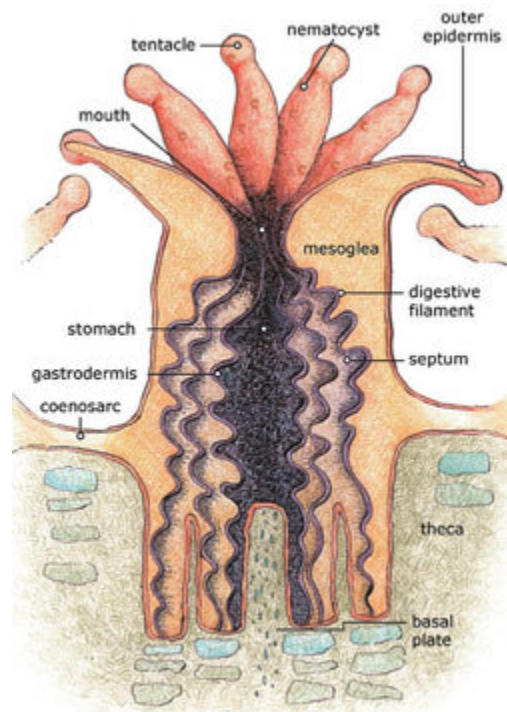
Recognizing that ten years after IYOR 97 there continues to be an urgent need to increase awareness and understanding of coral reefs, and to further conserve and manage valuable coral reef and associated ecosystems, the **International Coral Reef Initiative** designated 2008 as the International Year of the Reef (IYOR 2008).

IYOR 2008 will:

- Strengthen awareness about the ecological, economic, social and cultural value of coral reefs and associated ecosystems
- Improve understanding of the critical threats to coral reefs and generate both practical and innovative solutions to reduce these threats
- Generate urgent action at all levels to develop and implement effective management strategies for conservation and sustainable use of these ecosystems

What are corals?

Corals are invertebrate animals belonging to a large group of colourful and fascinating animals called Cnidaria. Other animals in this group that you may have seen in rock pools or on the beach include jelly fish and sea anemones. Although Cnidarians exhibit a wide variety of colours, shapes and sizes, they all share the same distinguishing characteristics; a simple stomach with a single mouth opening surrounded by stinging tentacles. Each individual coral animal is called a polyp, and most live in groups of hundreds to thousands of genetically identical polyps that form a 'colony'. The colony is formed by a process called budding, which is where the original polyp literally grows copies of itself.



Anatomy of a polyp (Source: NOAA)

Corals are generally classified as either "hard coral" or "soft coral". There are around 800 known species of hard coral, also known as the 'reef building' corals. Soft corals, which include sea fans, sea feathers and sea whips, don't have the rock-like calcareous skeleton like the others; instead they grow wood-like cores for support and fleshy rinds for protection. Soft corals also live in colonies that often resemble brightly coloured plants or trees, and are easy to tell apart from hard corals as their polyps have tentacles that occur in numerals of 8, and have a distinctive feathery appearance. Soft corals are found in oceans from the equator to the north and south poles, generally in caves or ledges. Here, they hang down in order to capture food floating by in the currents that are usually typical of these places.

Coral Reefs -- Rain Forests of the Sea

"Pollution, overfishing, and overuse have put many of our unique reefs at risk. Their disappearance would destroy the habitat of countless species. It would unravel the web of marine life that holds the potential for new chemicals, new medicines, unlocking new mysteries. It would have a devastating effect on the coastal communities from Cairns to Key West, Florida - communities whose livelihood depends upon the reefs."

Bill Clinton, President of the United States, August 1996

1997 was designated the International Year of the Coral Reef (IYOR). United States government agencies and more than 50 other organizations from around the globe sanctioned the 1997 IYOR to raise awareness of the value of coral reefs and the challenges they face. The IYOR was an effort to promote and pursue the goals of the International Coral Reef Initiative (ICRI), a partnership of nations and organizations to protect and sustainably use fragile coral reef resources world-wide.

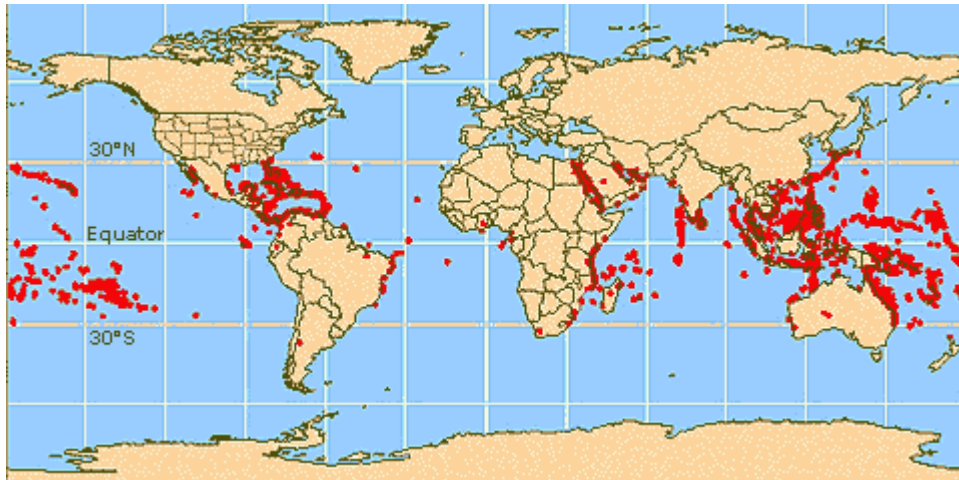
Why should we care about coral reefs? Coral reefs are important to our future.

Reefs are:

- home and nursery for almost a million fish and other species, many that we rely on for food;
- some of the earth's most diverse living ecosystems;
- full of new and undiscovered biomedical resources that we've only just begun to explore;
- important protection for coastal communities from storms, wave damage and erosion.

Where are they found?

Coral reefs are found throughout the oceans, from deep, cold waters to shallow, tropical waters. Temperate and tropical reefs however are formed only in a zone extending at most from 30°N to 30°S of the equator; the reef-building corals preferring to grow at depths shallower than 30 m (100 ft), or where the temperature range is between 16-32oc, and light levels are high.



Distribution of coral reefs -

Source: NOAA's National Ocean Service, Education Division: <http://oceanservice.noaa.gov/education>

Based on current estimates, shallow water coral reefs occupy somewhere between 284,000 and 512,000 km² of the planet (cold-water (deep) coral reefs occupy even more area). If all the world's shallow water coral reefs were crammed together, the space would equal somewhere between an area of land ranging from the country of Ecuador (the low estimate) to Spain (the higher estimate). This area-about 198 thousand square miles in an ocean of 140 million square miles-represents less than 0.015 percent of the ocean. Yet coral reefs harbor more than one quarter of the ocean's biodiversity. That's an amazing statistic when you think about it: no other ecosystem occupies such a limited area with more life forms.

Benefits of Coral Reefs

Coral reefs are often called the rainforests of the sea, both due to the vast amount of species they harbour, and to the high productivity they yield. Aside from the hundreds of species of coral, reefs support extraordinary biodiversity and are home to a multitude of different types of fish, invertebrates and sea mammals. Covering less than one percent of the ocean floor, reefs support an estimated twenty-five percent of all marine life, with over 4,000 species of fish alone. Reefs provide spawning, nursery, refuge and feeding areas for a large variety of organisms, including sponges, cnidarians, worms, crustaceans (including shrimp, spiny lobsters and crabs), molluscs (including cephalopods), echinoderms (including starfish, sea urchins and sea cucumbers), sea squirts, sea turtles and sea snakes.

Reef structures play an important role as natural breakwaters, which minimize wave impacts from storms such as cyclones, hurricanes or typhoons,. Some reports state that the extent of the damage cause by the Asian Tsunami in 2004 would have been far less in healthy reefs areas than in degraded ones.

Also, their beauty makes coral reefs a powerful attraction for tourism, and well managed tourism provides a sustainable means of earning foreign currency and employment for people around the world, even in remote areas of developing countries.

Several attempts have been made to estimate the value of coral reefs in terms of dollars. Benefits from coral reefs can be categorized into 2 types: "direct use values" (fisheries and tourism industry), and "indirect use values" (benefit derived from coastline protection). According to a United Nations estimate, the total economic value of coral reefs range from US\$ 100,000 to 600,000 per square kilometre per year (Source: UNEP-WCMC. (2006). In the front line: shoreline protection and other ecosystem services from mangroves and coral reefs. UNEP-WCMC, Cambridge UK. 33pp. Available online at http://www.unep-wcmc.org/resources/publications/UNEP_WCMC_bio_series/24.cfm

In summary, healthy coral reefs provide:

- **Habitat:** Home to over 1 million diverse aquatic species, including thousands of fish species
- **Income:** Billions of dollars and millions of jobs in over 100 countries around the world
- **Food:** For people living near coral reefs, especially on small islands
- **Protection:** A natural barrier protecting coastal cities, communities and beaches
- **Medicine:** The potential for treatments for many of the world's most prevalent and dangerous illnesses and diseases.

Celebrations of the International Year of the Reef 2008 (IYOR 2008)

The [first ICRI General Meeting](#) of the Mexico-United States Secretariat will be held the week of January 22nd. During this week, in addition to having a [celebration reception](#) for the International Year of the Reef 2008, and a [press briefing](#), we will also having a half day [IYOR symposium on January 25th](#).

The purpose of the January 25th symposium is to celebrate IYOR through a showcase of IYOR activities taking place around the world, and to allow ICRI participants to meet, share, brainstorm and coordinate regarding their IYOR plans. The symposium will be open not only to ICRI Members, but other interested parties within the coral reef and marine community (e.g., ICRI participating organizations, the D.C.-based marine community, the press, etc).

Below is a press advisory to invite the media to the launching of activities being proposed by IYOR

International Year of the Reef Launched at International Coral Reef Initiative Meeting

WHAT: Coral reef experts and managers from the United States, Mexico, France, and Bonaire will officially inaugurate the International Year of the Reef 2008 with a news conference as part of the International Coral Reef Initiative Meeting in Washington D.C. A live telephone and web connection to a NOAA-funded coral reef exploration of Bonaire, Netherland Antilles will present new findings following release of report on 2005 Caribbean coral bleaching event.

WHEN: Thursday, Jan. 24, 11:00 a.m.- 12:00 noon

WHERE: Georgetown University Marriott Conference Center, Salon F
3800 Reservoir Road, Washington, D.C.

WHO:

- Bill Eichbaum, managing director and vice president, marine portfolio, World Wildlife Fund
- Christian Estrosi, secretary of state for overseas territories, France
- Ernesto Enkerlin, director, National Commission for Protected Areas, Mexico
- Claudia McMurray, assistant secretary, Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State
- Clive Wilkinson, coordinator, Global Coral Reef Monitoring Network
- Vice Admiral Conrad Lautenbacher, under secretary of Commerce and NOAA Administrator
- Mark Patterson, Virginia Institute of Marine Science, chief scientist, Mission to Bonaire
- Frank von Slobbe, secretary for environment, Bonaire