

## Our Oceans

Oceans are where life on earth began-

Life began in the seas 3.1 billion to 3.4 billion years ago. Land dwellers appeared 400 million years ago a relatively recent point in the geologic time line.

The average depth of the ocean is 4 km

The oceans cover 71 percent of the Earth's surface (362,000,000 km<sup>2</sup> (!!!)) or 71% of the surface of the globe is water and contains 97 percent of the Earth's water which is about 1,300,000,000 km<sup>3</sup> or 328,000,000 miles<sup>3</sup>.

80% of all life on earth is found under the oceans

- In the world's oceans there are:
  - 58 species of sea grasses
  - Less than 1,000 species of cephalopods - squids, octopi, & pearly nautilus
  - 1,000 species of sea anemones
  - 1,500 species of brown algae
  - 7,000 species of echinoderms - starfishes, sea urchins, sea cucumbers and sea lilies
  - 13,000 species of fishes
  - 50,000 species of molluscs



Each year some 70 to 75 million tonnes of fish are caught in the ocean. Unfortunately we dump 3 times this amount as waste

The global fish production exceeds that of cattle, sheep, poultry or eggs.

Some may think that changes in one drop of water don't change the 1,300,000,000 km<sup>3</sup> of water on earth. A human being also consists of billions of cells; the change in just one cell may be the beginning of a terminal illness.

More than half the world's population live within a 100 km or 60 miles distance from the coast. This is more than 2.7 billion people.

Some 6.5 million tons (6,500,000,000 kilo) of litter finds its way into the sea each year.

## Importance of our oceans

- Controls Climate and Weather
- Fisheries
- Recreation and Tourism
- Transportation and Telecommunication
- Human Settlements on the Coast
- Oil, Gas and Minerals
- Energy: of tidal, wave, thermal, salinity and wind energy
- Marine Biotechnology: Source of Medicines

