

Coral reef adventure



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Viewing the elaborate exhibitions of ocean life and biodiversity was an enlightening and entertaining experience. These displays and the Imax film, Coral Reef Adventure, introduced me to the incredible diversity and crucial roles of some of the Earth's ecosystems. These vivid installations enabled better understanding of the importance of preserving these ecosystems to sustain all of life. After this experience, I am very much inspired to help prevent destruction of nature's beauty. The purpose of the Hall of Biodiversity is to expand public understanding of the crucial role biodiversity plays in sustaining life, create awareness to the Earth's diverse and often endangered creatures, and alert visitors of the ecological crisis we now face, while displaying a vibrant and stimulating depiction of the spectacular beauty and abundance of life on Earth. Featured in the Hall of Biodiversity is the Spectrum of Life, a journey through the awesome diversity of life on Earth.

It presents 1500 specimens, which represent a large assortment of bacteria, fungi, plants, and animals, such as microorganisms and terrestrial and aquatic giants. The 100-foot-long installation, grouped into 28 living categories, displays 3.5 billion years of evolution. There are ten interactive computer stations to help guests recognize the specimens shown in the Spectrum and explain their distribution on Earth.

Another element of the hall is the impressive diorama of the Dzanga-Sangha rain forest, which shows one of the most biodiversity-rich ecosystems on Earth. Read aboutThe diorama features more than 160 species of flora and fauna and more than 500,000 leaves, each hand made. This innovative diorama of the rainforest is 90 feet long, 26 feet wide, and 18 feet high and

uses high-resolution imagery, video, sound, and smell to create a very realistic environment.

The rain forest is exhibited in three different states: pristine, altered by natural forces, and degraded by human intervention. The Resource Center area, displaying the “ Transformation of the Biosphere” and “ Solutions” walls, provide a detailed exploration of the importance of and threats to biodiversity, and ways in which people are trying to preserve the world’s species and ecosystems. Today more species are declining and facing extinction than at any time since the most recent great mass extinction that took place 65 million years ago. In an effort to tackle this crisis, the US congress in 1973 passed the endangered species act (ESA) giving protection to species it declared as either threatened or endangered.

An endangered species is at the verge of extinction within the near future throughout most or all of its habitat range. A threatened species is likely to become endangered in the near future. The ESA’s list of species is in addition to the red list of threatened species, which has been assembled by the international union for the conservation of nature. Since the 1960s the animals shown in this exhibit, such as the Dudong, goldan-capped fruit bats, Siberian tiger, and giant panda, are just some of the endangered plants and animals. If nothing is done to preserve and protect these species and their habitat, they will eventually disappear from the earth forever like the Dodo.

Biodiversity is the total amount of species living on Earth. Evolutionary biodiversity is the collection of species grouped by their revolutionary relationships, including the simplest divisions of life, into animals, plants,

fungi, and many forms of microbial life. Ecological diversity is the interaction of the various species from each of these groups to form the network of life in local ecosystems all over the world. Biodiversity is threatened as humans are abusing ecosystems and causing thousands of species a year to become extinct. We have the power to stop this destruction, but we must first understand the importance of biodiversity and what threatens it. Human beings rely on healthy ecosystems and on the millions of animal, plant, fungal, and microbial species on Earth.

We depend on ecosystem benefits such as the production of oxygen through photosynthesis, the purification of water, and the natural cycling of carbon, nitrogen, and other elements necessary to life. We use biological diversity for food, medicine, clothing, and shelter. Not only is it to our advantage, but also we are morally obligated as co-inhabitants of the Earth to find ways to prevent the terrible destruction of ecosystems and the growing loss of the world's living creatures. Human population has grown since the discovery of agriculture around 10, 000 years ago.

People have already converted large amounts of land for farming, and the industrial revolution has increased development of cities, roads, and manufacturing facilities, all at the cost of natural ecosystems.

Transformation of land for farming and timber production is increasing, especially in tropical regions where most of the world's species live. Our fisheries and an abundance of wildlife species have become severely depleted through excessive exploitation, and pollution is also destroying many species. In addition, foreign species arriving from distant lands through human contact are causing large numbers of local species to become

extinct. Around 30, 000 species a year are being lost forever, and it's all because of us.

Rainforests are distinguished by high diversity and by high biomass. The total amount of living material that is present, decomposition of dead plants and animals is very swift, and the nutrients do not stay in the soil but are quickly recycled. The massive forest at dawn exposes the huge diversity of the rainforest. The Nocturnal world of the dense forest, with its assortment of animal life and sounds, contains a landscape of giant trees over shrubs and climbing vines. Local people use forests, as did generations of ancestors before them, for food, shelter, clothing, and medicine. The Milstein Hall of Ocean Life features a 94-foot-long model of a blue whale, the largest animal that ever lived, floating in a virtual ocean created through dramatic lighting, video, and sound effects.

This 29, 000-square-foot hall displays an extraordinary marine environment with video projection screens and interactive computer stations. The classic dioramas on the lower level, such as those that depict the Andros coral reef, a school of leaping dolphins, and northern sea lions from Alaska's Pribiloff Island help reveal the latest in marine research. The mezzanine level of the hall with eight new displays on the major ocean ecosystems and the two new Spectrum of Life walls accentuate the fascinating diversity of marine life. About 3. 5 billion years ago, the first life forms appeared in the ocean.

The ocean shapes and sustains all life. Less than five percent of the ocean, which includes more than two-thirds of the Earth, has been explored. So many mysteries about the ocean remain, and there may be new species yet

to be discovered. Beneath the surface lies a huge diversity of habitats such as coral reefs and polar seas, each supporting a variety of different creatures. The ocean also provides us with oxygen and controls the world's climate. However, some marine species have been driven to the verge of extinction due to excessive fishing and hunting.

Global climate change, pollution, and development threaten ocean ecosystems. Understanding more about the ocean and its inhabitants will help us to protect this natural wonder. The blue whale is the largest animal that has ever lived. An adult can grow to be 3 school buses in length and over 400, 000 pounds, which is more than 24 african elephants. Their average life span is from 40-80 years, and their closest relative is the fin whale.

These large whales are safe from most predators, and their massive bodies retain heat well, which is an advantage when in the cold ocean waters. Their diet consists mostly of shrimp-like krill. These whales are difficult to study because they spend little time at the surface and migrate to remote waters. Therefore, scientists know little about they live.

The Coral Reef Adventure is a true story of the expedition of two underwater filmmakers, Howard and Michele Hall. It takes the audience from the Great Barrier Reef of Australia to the islands of Fiji and Tahiti, exploring some of the world's largest and most beautiful reefs. The giant Imax screen makes the viewer feel like he/she is actually there. Coral reefs, which have a higher diversity of species than most rain forests, are large limestone structures and are vital to the survival of numerous marine animals.

They are comprised of living corals and other reef-building animals on top of older coral skeletons. Besides being a beautiful sight to the eyes, this exhibition taught me a lot. I realize, more than ever, the importance of preserving our ecosystems in order to sustain life. In an effort to protect biodiversity, we need to have more national parks and reserves, international treaties, and programs created to manage wild lands.

We also need to enforce the laws more effectively to assure that no one abuses our land, because the Earth and its inhabitants are sacred.