

Ocean Health



Video Contest: Background Reading

Consider narrowing your video's focus by concentrating on a subtheme within your topic. Listed below are just a few of the possible subthemes for videos relating human population growth to ocean health.

Coral bleaching

Coral reefs get their brilliant colors from tiny algae that live in their tissues. These tiny organisms live in harmony with marine life, and they depend on each other for many resources. Coral reefs shelter 25 percent of marine species, protect shorelines, support fishing industries, and provide tourism for coastal communities. When corals are stressed by changing conditions (like warming water temperatures or pollution) the algae living in their tissue disappears, causing them to turn completely white and leaving them more susceptible to disease and death. In 1998, an underwater heatwave killed a startling 16 percent of the coral reefs around the world by causing this type of bleaching.

Overfishing

Overfishing occurs when more fish are caught than the population is able to replace through natural reproduction. Our seas have been considered a limitless bounty of food for centuries. However, unsustainable fishing practices and an increasing demand for fish are pushing many fish species, such as Bluefin Tuna, to the brink of collapse. The results of overfishing will not only affect the marine life of the ocean, but also the social and economic well-being of the coastal communities who depend on fish for their way of life.

Pollution

Ocean pollution is any human-made waste that is dumped on beaches, in waterways, or in the ocean itself. From plastic bags and pesticides to oil and sewage, much of the waste we produce on land eventually reaches the oceans, either through deliberate dumping or from the run-off of drains and rivers. The "garbage patch," a giant collection of debris swirling in the North Pacific Ocean, is estimated to be larger than the size of Texas. Mostly plastics, this garbage is often ingested by marine animals and sea birds, putting their lives in danger. Toxic chemicals leach out the plastics as well, infecting the tissues of fish – a dangerous condition for the fish themselves and the humans who eat them.

Warming Temperatures

Oceans are a crucial climate regulator. While land areas and the atmosphere absorb some sunlight, the majority of the sun's radiation is absorbed by the ocean. By absorbing heat and carbon dioxide from the atmosphere, the ocean helps keep our climate and weather patterns stable, creating warmth from the atmosphere during summer and releasing it back during winter. Even climate zones hundreds of miles away from any coastline are still largely effected by the ocean climate system. However, the ocean is absorbing too much heat and carbon dioxide, making waters warmer and more acidic. When the

ocean gets too warm, plants and animals that live in it must adapt, or they are at risk of dying. This includes coral, algae and plankton, which are at the bottom of the food chain, but also impacts species like fish, seals, and whales, who depend on this tiny marine life.

Sources

<http://www.nature.org/ourinitiatives/habitats/coralreefs/coral-reefs-coral-bleaching-what-you-need-to-know.xml>

<http://ocean.nationalgeographic.com/ocean/critical-issues-marine-habitat-destruction/>

<http://www.worldwildlife.org/threats/overfishing>

http://wwf.panda.org/about_our_earth/blue_planet/problems/pollution/