

THREATS TO OCEAN INHABITANTS

OVERFISHING – occurs when the number of fish caught is in excess of the number that are needed to maintain fish stock populations. This can happen through several fishing practices:

- ** Overharvesting of **whales**. Since the reproductive rate of whales is so low, there are several species that face extinction: the Minke, Humpback, Fin, North Atlantic Right & Antarctic Blue whales. Although an international moratorium on commercial whale fishing has been in effect since 1986, several countries have refused to comply - Japan, Iceland & Norway. Whalemeat is very popular in Japan.
- ** Factory Fishing: Factory ships have equipment that literally “vacuum” whole schools of fish out of the water. This practice leaves the number of remaining fish so low that it is impossible for them to repopulate. Examples:
 - * Chesapeake Bay **manhaden** fish – an important food source for many species of fish higher on the food chain & also for mitigating the effects of water pollution in the bay
 - * In New England – **Atlantic Herring**, an important food for groundfish stocks like cod & for whales, tuna, striped bass & sea birds
 - * North Pacific **pollack, halibut, & Atka mackerel**
- ** Bottom Trawling: a very habitat destructive practice of dragging heavy metal chains which scrape & crush the ocean floor, obliterating whole fragile ecosystems like ancient deep-sea **coral** forests. It is estimated that there may be up to 5 million marine species existing in these habitats that haven't been discovered yet.
- ** Bycatch: The use of fishing nets often results in nonselective entrapment & death of other fish species especially **whales, dolphins & porpoises** in very large numbers (as high as 300,000/yr). Other fish significantly affected by this practice are **sharks & rays**. Some species of sea birds are caught on hooks or in nets, for example the **albatross**, which now faces extinction.

GLOBAL WARMING: Rising ocean temperatures & sea levels threaten marine animal & fish health & habitats through polar ice cap disintegration, permafrost thawing, coral reef death & intense extreme weather events. Increased ocean water temperatures compromise aquatic health, for example by increasing susceptibility to disease, whale & dolphin stranding due to warmer water currents & loss of feeding grounds due to collapse of ice shelves.

The ocean naturally “buffers” atmospheric CO₂ levels by absorbing it, which in large quantities increases the acidity of ocean water. This affects mineral balance in **plankton, molluscs & coral**.

Ice melt & increased precipitation disrupts global air currents and predisposes to extreme weather events, coastal flooding & shoreline erosion & saltwater contamination of freshwater habitats.

POLLUTION: Huge quantities of pollutants such as pesticides, sewage & industrial waste, urban run-off, mining & radioactive waste, plastics & trash are dumped into our oceans. For example, near Hawaii there is a trash “vortex” the size of Texas largely made up of plastic debris & discarded fishing nets. The plastics leach toxic chemicals into the water & some marine animals mistake plastic items as food which block the digestive system causing them to starve to death. The nets trap **sea turtles & dolphins**. Since these materials break down so slowly, these trash depots will remain for decades.

For more information, the following are excellent websites:

www.greenpeace.org

www.montereybayaquarium.org - has information on how to use your dollars to select fish based on environmental concerns