

A Living Reef Gives  
Our Islands Life



[www.hawaiiireef.org](http://www.hawaiiireef.org)

## HAWAII'S LIVING REEF ECOSYSTEM THREATS

### Fishing Pressure

- Many nearshore fish stocks in the main Hawaiian Islands have decreased in the past 100 years. This is due, in part, to the steady increase in the island population and resulting strain on marine resources. Minimal information exists on the status of most reef fish populations.
- Fishing in Hawaii includes commercial, subsistence and recreational fishing. Until recently, only data from commercial fishing has been comprehensively collected.

### Alien Species

- Alien species are often voracious predators that outcompete native species, or transmit parasites and diseases. In field experiments, miniscule pieces of alien seaweed, *Hypnea musciformis*, increased up to 200% in weight in just one week!

### Urban Development and Agriculture

- The most significant threats to our reefs result from human activities, particularly sediment, chemical and nutrient runoff from lawns, agriculture, golf courses, construction sites, storm drains, cesspools and septic tanks.
- Sediment runoff smothers coral causing the reef to starve to death, as it no longer can manufacture food.
- Herbicide, pesticide and other chemical runoff do not just kill plants and animals in a yard or field, but will also kill marine life throughout a reef.
- Fertilizer runoff from urban lawns, golf courses and agricultural fields, as well as domestic sewage, are common sources of nutrients from land-based activities. These nutrients can encourage rapid growth of algae that crowd out corals and kill reefs.

### Stepping or Anchoring on Coral Reefs

- Coral is a living animal. Stepping on a reef can damage or kill it. Shallow, calm waters produce the most fragile corals. These corals are often in the same areas frequented by snorkelers and other ocean users.

## **Marine Debris**

- Discarded fishing gear, such as monofilament fishing line can damage coral and possibly kill it.