Coral Reefs at Kalaupapa National Historical Park

Kalaupapa National Historical Park, established in 1980, preserves the story of the isolated Hansen's disease (leprosy) community by preserving and interpreting its settings and values. Kalaupapa Peninsula is isolated from the outside world by sheer cliffs of over 600 meters. The 25 km of coastline and offshore islands surrounding the park hold a rich and abundant fish assemblage that is among the most diverse in the main Hawaiian Islands. Encounters with rare fish and unique coral species not commonly observed in the main Hawaiian Islands can occur in the shallow waters of this windswept north coast.

Underwater oceanographic observatories measure currents, waves, temperature, and water clarity at several parks in the Pacific

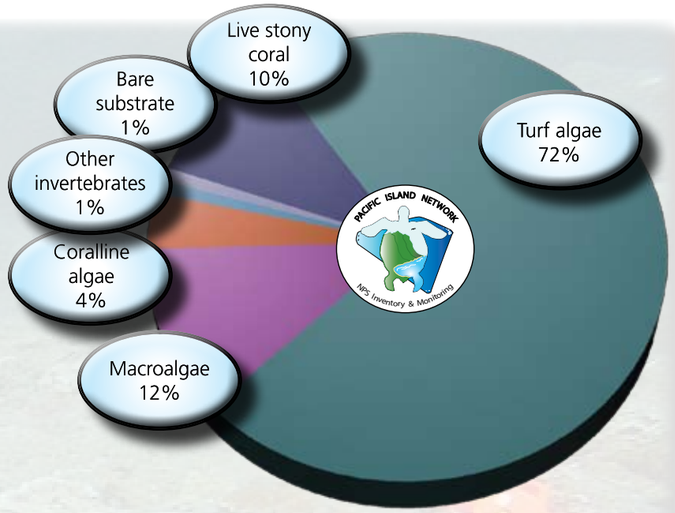
Major Threats

- Overfishing
- Climate change
- Strong waves

Status and Trends: Coral reef monitoring began in 2006. Since then, coral cover at 30 monitoring sites appears to be relatively low (10%), but stable at 15 permanent monitoing sites. The low coral cover is not surprising since coral habitat along the north shore of Molokaʻi Island is subjected to extremely high wave action each winter, causing damage to existing coral colonies and limiting the number of coral species that can thrive under these conditions. There has been a very low incidence (<2%) of coral bleaching or disease. Natural coral replenishment is low compared to other north shore environments in the state of Hawaii. Monitoring data have detected a low (4%) cover of crustose coralline algae, a critical settlement surface for juvenile corals and many other reef organisms and important for maintaining reef structure. Low macroalgal cover of 12%, however, suggests that the abundant herbivorous fish populations may be helping to keep algae in check. Fishing activity in the park is limited to local residents and occasional fishing vessels.

These corals are adapted to survive, grow and reproduce in areas exposed to extreme forces from winter storm waves

Action: Marine algae, invertebrate, and fish inventories have yielded new scientific records and identified unique habitats within the park. Monitoring and research on targeted fisheries are providing valuable information for park and state-wide fisheries management. Park staff and cooperators are continuing to monitor sea floor communities and reef fish assemblages along with natural coral replenishment. Physical parameters such as currents, tides, temperature, and water quality are also being monitored within the park to provide scientific information to resource managers.



Composition of coral reef habitat

Fast Facts

- Unique marine boulder habitat provides ideal environment for fish populations
- Fishing pressure from outside sources
- The park is engaged with the local community in marine resources management
- A primary pupping area for the Hawaiian monk seal in the main Hawaiian Islands

Endangered Hawaiian monk seals use the beaches at Kalaupapa to rest and pup their young