Coral Reefs at War in the Pacific National Historical Park

War in the Pacific National Historical Park has one of the highest levels of species diversity within the national park system, including one of the most diverse coral reefs. The park was established to commemorate the men and women who fought and served in the battlegrounds of Guam during World War II. Bomb holes that once scarred the sea floor are now covered with coral and algae and serve as habitat for a diversity of fishes and marine invertebrates. Unexploded ordnance and empty shell casings rest silently on the sea floor to remind divers of the fierce battles that took place during World War II.

Major Threats

- Overfishing
- Sedimentation
- Watershed development

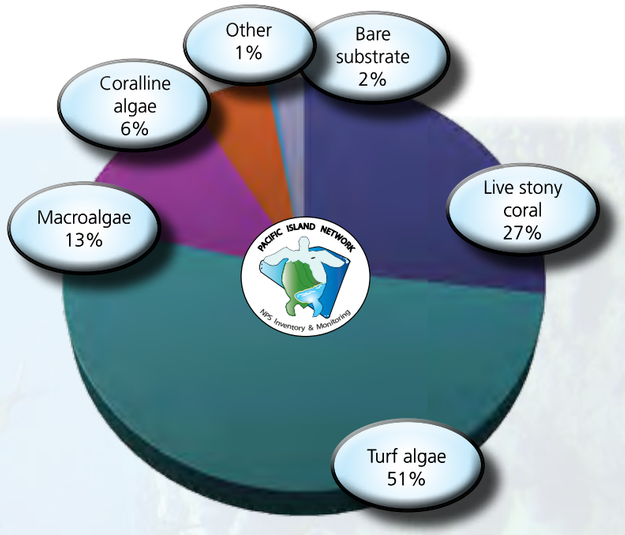
An NPS scientist taking measurements of an eroded landscape which has led to massive sedimentation on the reefs

Status and Trends: Coral reef monitoring began in 2008. Live coral cover at 30 monitoring sites was moderately high (27%). Sedimentation and its impacts on coral reefs is a continuing major concern. Coral recruitment (arrival of juveniles) in the park has been extremely low over the last several years. Monitoring data have shown six percent cover of crustose coralline algae, a critical settlement surface for juvenile corals and many other reef organisms, and important for maintaining reef structure. Thirteen percent cover of macroalgae suggests that at least some herbivorous fish or invertebrate populations need protection in order to help prevent algae overgrowth on coral.

A stingray makes its home along the reef in Agat Bay

This feather plume worm sweeps up small particles and helps to keep reefs clean

Action: A subsistence fisheries harvest study has been conducted in the park. Coral reef and reef fish monitoring has been implemented by NPS and cooperators as has the monitoring of currents, tides, temperature, sedimentation, water quality, and coral recruitment. The park is experimenting with several methods for restoring eroded upland areas to reduce sediment loads on coral reefs along with monitoring off-road vehicle use in park watersheds which is associated with erosion.



Composition of selected coral reefs in War in the Pacific National Historical Park

Corals are becoming increasingly rare due to impacts from land-based sources

An anemone fish rests in the tentacles of its host anemone, where it is safe from potential predators

Fast Facts

- Fire and subsequent erosion in the uplands causes severe sedimentation impacts on coral reefs
- Coral recruitment (arrival of juveniles) is extremely low
- Harbor expansion adjacent to the park presents serious threats to coral reef resources