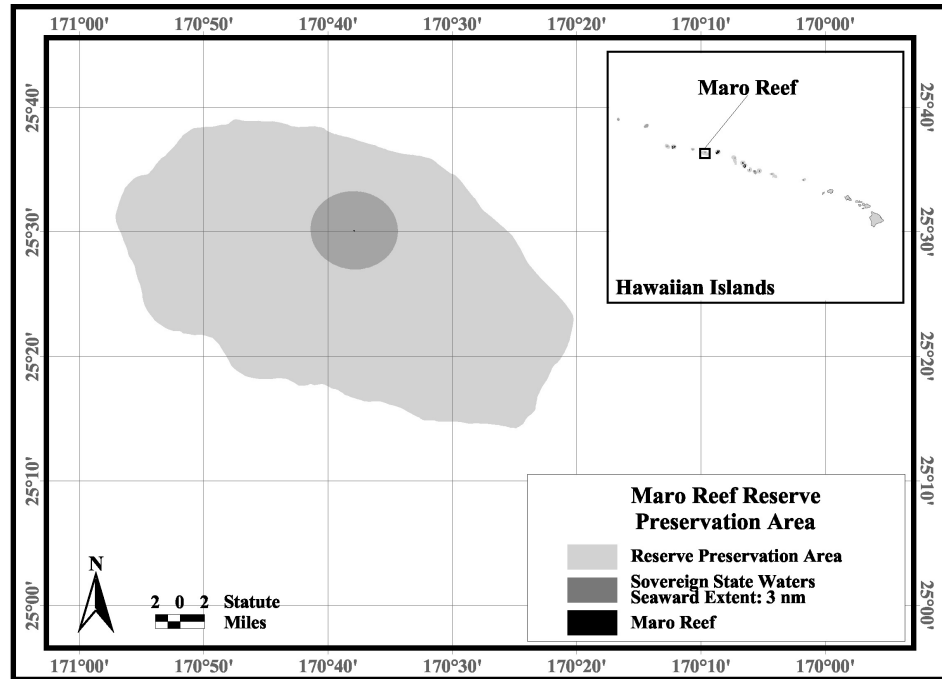


Maro Reef Reserve Preservation Area

MAP



This reserve preservation area is approximated using fathoms (fm) but shall be represented in future maps by the Secretary using straight-line boundaries in longitude and latitude coordinates to clearly encompass the reserve preservation area and to provide clarity and ease of identification.

RESERVE PRESERVATION AREA

The Reserve Preservation Area for Maro Reef includes the waters and submerged lands from the seaward boundary of Hawaii state waters out to a mean depth of 100 fathoms, *provided that* bottomfishing, in accordance with other conservation measures described in the Executive Order, shall be allowed to continue seaward of a mean depth of 20 fathoms, unless and until the Secretary determines otherwise after adequate public review and comment.

ENVIRONMENT

Maro Reef is a largely submerged atoll, with no more than 1 acre of emergent land but about 475,000 acres of underwater coral reef habitat. Except for birds, there are no terrestrial species inhabiting the island.

Maro Reef consists of numerous coral heads and rocks amid sandy flats and channels at depths of 1 to 10 fathoms. Extensive surveys and ecological assessments conducted from the NOAA ship *Townsend Cromwell* in 2000 revealed a unique and complex reef consisting of intertwined reef spurs radiating outward from a series of lagoons. Maro's corals and coralline algae are healthy, diverse, and contribute to active reef growth on all of the island's outer barrier

reefs. The coral structures of the outer barriers have much higher vertical relief than observed at French Frigate Shoals or any other NWHI atolls with coral heads. This amazing feature, along with the reef's healthy coral and algal cover and excellent visibility make the outer barriers of Maro among the more beautiful regions of the NWHI Reserve.

The series of central lagoons are noticeably different from all other lagoons surveyed at the NWHI. Tall columns of coral covered with algal turf rise from about 20 meters below sea level to about 5 meters from the water's surface. Lagoon bottoms are generally highly silty and sandy.

The deeper banks (10 to 20 fathoms, 20 to 40 meters) surrounding the shallow water reefs have also undergone extensive surveys. Like Necker Island and the Gardner Pinnacles, these relatively flat areas consist primarily of sand and algal beds with occasional rock outcroppings.

Maro Reef provides very few areas for monk seals to haul out and therefore is not considered a breeding area for the species. Monk seals are, however, occasionally seen foraging around the reef. Derelict fishing gear and other types of marine debris are, however, having a major impact on the shallow reefs and associated fauna of Maro Reef.