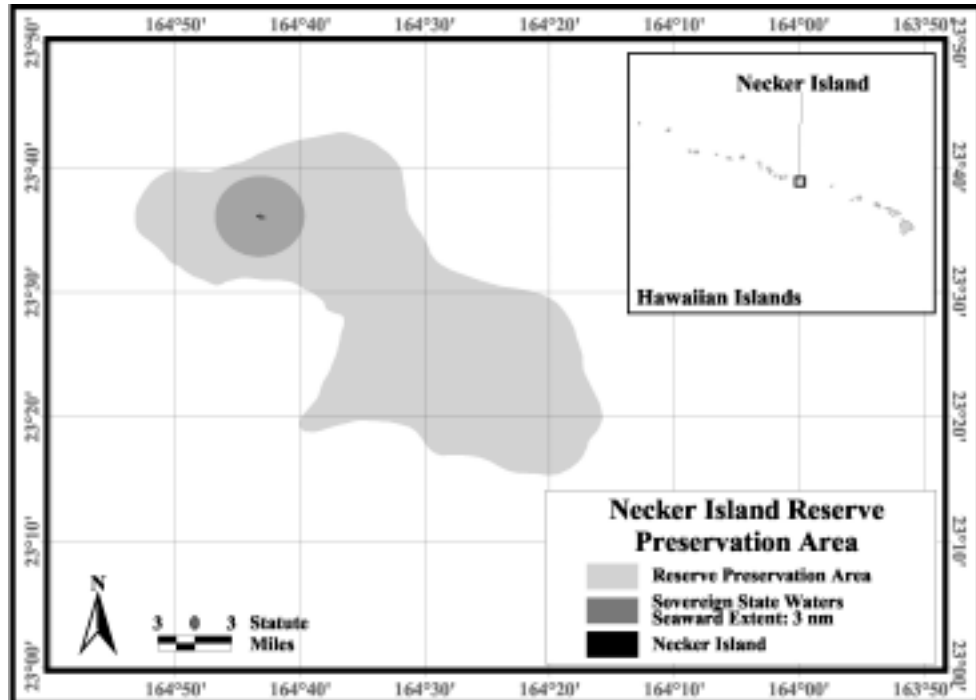


Necker Island Reserve Preservation Area

MAP



The reserve preservation area in this section 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 Necker Island includes the waters and submerged lands from the seaward boundary of Hawaii state waters out to a mean depth of 100 fathoms, *provided that* commercial bottomfishing and trolling for pelagic species by recreational fishers and commercial bottomfishers shall be allowed to continue seaward of a mean depth of 25 fathoms, unless and until the Secretary determines otherwise after adequate public review and comment.

ENVIRONMENT

Necker Island is a hook-shaped dry volcanic island that includes about 45 acres of land. More than 380,000 acres of coral reef habitat are associated with the island.

With regard to reef and coral development, Necker Island resembles Nihoa Island in several respects. Necker is a small island unable to buffer the impacts of strong waves that can break along the submerged shorelines from any direction. The effects of scour (surge combined with sand and other sediments)

is evident from the wave-cut bench in West Cove and the deeply cut sand channels and chasms at several locations in deeper water. The concentration of living corals on elevated surfaces is a manifestation of corals surviving better in less scour-prone environments.

Although Necker is smaller than Nihoa, deeper coral reef shelf habitat surrounding Necker is more extensive. A broad shelf extends around the island, especially to the southeast, but is not shallow enough to protect the island from wave action. Nevertheless, the number of coral species at Necker is comparable to that of Nihoa (fewer than 20) and reflects the difficulty of corals colonizing and establishing permanent communities in shallow water. Reef growth, if any, around either island is minimal and both islands have experienced the punishing effects of large waves as demonstrated by the high wave cut sea cliffs above sea level and wave planed benches and shelves below sea level. With the exception of small amounts of fishing line, there is little evidence of any human effects on the reef environments of Necker Island.

Reef fishes at Necker appear healthy and abundant. Numerous grey reef sharks, giant Trevally jacks, gray snappers, monk seals and other predators have been sighted suggesting a good natural balance of the reef fish population. Several large manta rays have also been observed along with an abundance of limpets along the island's rocky surf zone. Necker also supports a small population of endangered Hawaiian monk seals with limited reproduction, probably maintained by immigration from other breeding colonies.

The Hawaiian Islands National Wildlife Refuge is currently administered out to 20 fathoms at Necker Island.