

# Scientists Use Brawn to Assist Sea Turtles

By Harry Whitten  
Star-Bulletin Writer

The endangered green sea turtle goes to East Island of French Frigate Shoals to dig its nest and lay its eggs in the sand.

But it can't dig nests in concrete, which is why nine scientists recently spent five days of hard manual labor breaking up abandoned concrete foundations on East Island.

The efforts should lead to increased productivity for the Hawaiian green turtle population, according to George H. Balazs, an authority on the turtles.

Balazs, of the University of Hawaii's Institute of Marine Biology, is on loan for a year to the National Marine Fisheries Service to do sea turtle research.

East Island is one of 12 small islands within the shallow waters of French Frigate Shoals, 500 miles northwest of Honolulu and a part of the Hawaiian Islands National Wildlife Refuge.

THE AREA ALSO is heavily used by many species of seabirds and by the Hawaiian monk seal, another endangered species.

East Island has only 12 acres but it is the most important site in the entire Hawaiian chain for nesting by green sea turtles, Balazs said.

The work done by him and eight other persons from the National Marine Fisheries Service and the U.S. Fish and Wildlife Service consisted of removing as much metal, wire and wood debris as possible from the ground surface of East Island.

The concrete foundations originated from occupancy of the island by the U.S. Coast Guard during the 1940s. The metal, wire and wood debris discouraged, and at times entangled, nesting turtles and hatchlings emerging from the nests.

THE METAL was transported to Tern Island, another of the French Frigate Shoals Islands, for use as landfill, Balazs said. The wood was burned and the concrete was consolidated into a pyramid.

Phase II of the project, scheduled next year, will consist of getting rid of the concrete, perhaps by hauling it out into deep water.

The hard-working scientists used two electric jackhammers, a portable gasoline-driven electric generator, sledgehammers, crowbars, picks and shovels.



**CLEANUP**—Scientists break up the principal concrete foundation, measuring 20 by 65 feet, on East Island in order to make more space available for nesting by green sea turtles. —Photo by George H. Balazs.

FACT SHEET ON THE CLEAN-UP PROJECT CARRIED OUT  
AT EAST ISLAND, FRENCH FRIGATE SHOALS,  
DECEMBER 15-19, 1980

SOUTHWEST FISHERIES CNTR  
HONOLULU LABORATORY  
2570 DOLE STREET  
HONOLULU HI 96822-2396

OBJECTIVES:

1. To break up abandoned concrete foundations on East Island that originated from the occupancy of the U.S. Coast Guard during the 1940's.
2. To remove as much metal, wire, and wood debris as possible from the ground surface of East Island.

East Island consists of only 12 acres, but it is the most important site in the entire Hawaiian chain for nesting by green sea turtles (a threatened species under the U.S. Endangered Species Act). The ground area covered by concrete foundations has been unavailable for turtles to dig nests and lay their eggs. Metal, wire, and wood debris regularly inhibit, and at times entangle, both nesting turtles and hatchlings emerging from nests. The enhancement of this important island habitat through clean-up efforts will lead to increased productivity in the Hawaiian green turtle population.

East Island is one of 12 small islands situated within the shallow waters of French Frigate Shoals, a part of the Hawaiian Islands National Wildlife Refuge. French Frigate Shoals is located approximately 500 miles northwest of Honolulu. In addition to being a critical breeding site for green turtles, the area is also heavily utilized by numerous species of seabirds and the endangered Hawaiian monk seal.

PERSONNEL AND AGENCIES:

National Marine Fisheries Service

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\*Resident caretakers/biologists at Tern Island, French Frigate Shoals.