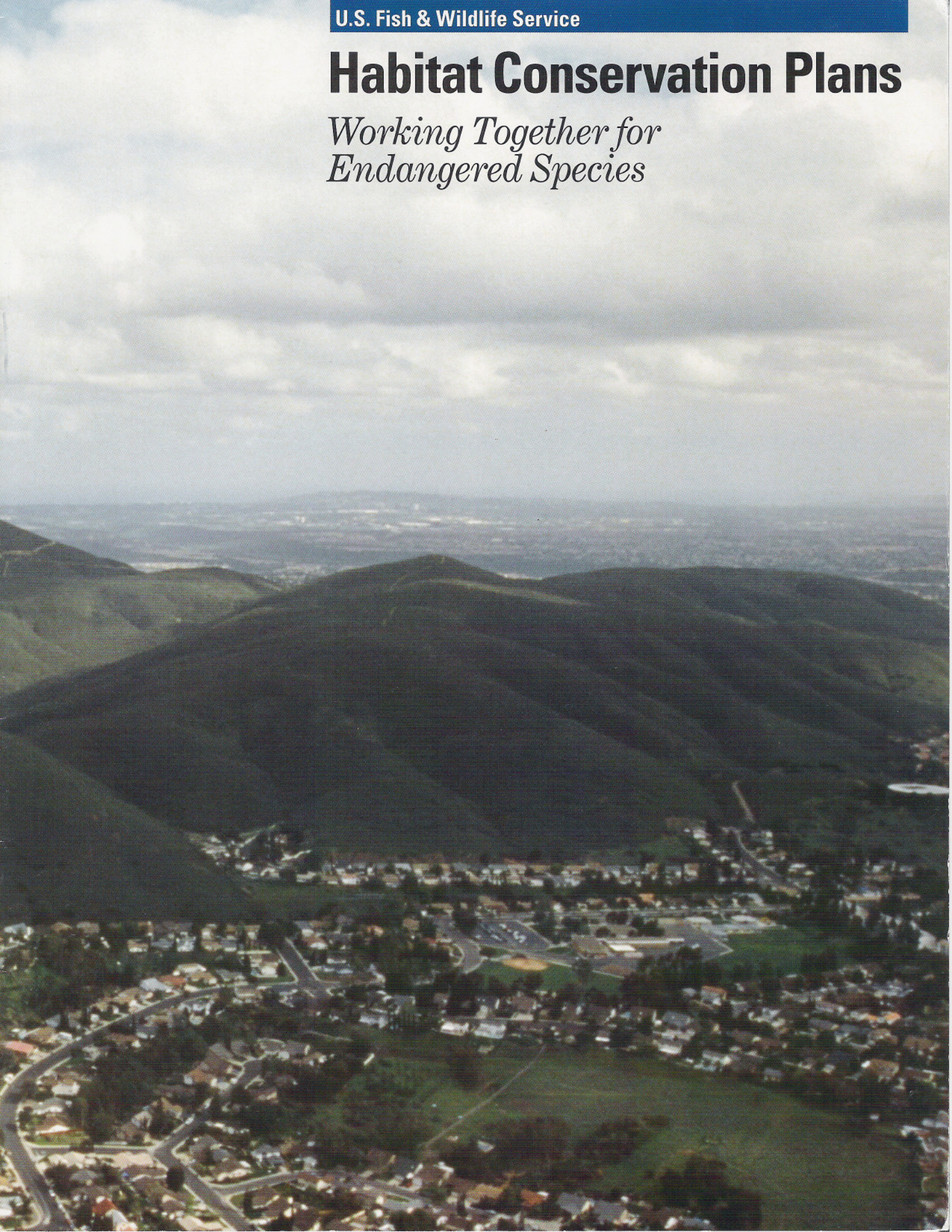
U.S. Fish & Wildlife Service

Habitat Conservation Plans

Working Together for Endangered Species



Cyanotech: Algae Aquaculture and Endangered Hawaiian Stilts

What do endangered Hawaiian stilts have in common with a company that makes health supplements? They both like shallow wetlands that produce algae.

On the Big Island of Hawaii, Cyanotech Corporation developed a Habitat Conservation Plan for the wading birds after the business expanded its algae production ponds from 10 to 90 acres and the stilts moved in.

"When the Hawaiian stilts arrived, we called the Fish and Wildlife Service," said Dr. Gerald Cysewski, chief executive officer of the company. "The Service suggested that we contact Ducks Unlimited and the Hawaii Division of Forestry and Wildlife, something that we did. Then we created a safe area for the birds. Wildlife authorities worked well with this private business, and the stilts have done well!" he said.

"If you provide food and water, they will show up," commented Fish and Wildlife Service biologist James Kwon. "This experience has been educational in terms of habitat restoration elsewhere. Nesting and foraging areas at the Cyanotech facility have done wonders for recovery. The site has produced 237 birds in five years."

Thanks to the Habitat Conservation Plan, the first in Hawaii, the birds now have their own 1.7-acre wetland, established and managed just for them. Key features of the "safe area" are its mud flats for nesting and shallow foraging areas away from the algae-production ponds, where chicks could drown in the fast-moving water of the raceways. To keep the stilts away from the

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Tanks of microalgae are processed into nutritional supplements at Cyanotech's Kailua-Kona facility.

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A Hawaiian stilt checks the eggs in its nest.

Jeff Newman, USFWS

Biologists Scott Waddington, Cyanotech Corporation; Paul J. Conry, Division of Forestry and Wildlife; and James Kwon, U.S. Fish and Wildlife Service, visit Cyanotech's microalgae production site.

raceways, Cyanotech employees create human disturbance by driving golf carts along the land-strips that separate the ponds.

In January, Cyanotech's biologists flood the pond before the breeding season. Then, to encourage invertebrates, biologists draw down the water and add algae—a sort of natural nutrition supplement—to increase the foraging areas for stilt chicks whose diet is small fish, brine fly larvae, and water insects. Along with monitoring the number of chicks that hatch and fledge, biologists trap animals such as the Indian mongoose, a species introduced to control rats on sugar plantations, and also feral cats that could prey on the birds. These management activities explain why the stilts have flourished at their new home.

In 2001, the Hawaiian Audubon Society honored Cyanotech with its Corporate Conservation Award after the company's initiatives resulted in an increase of 194 stilts, more than 10 percent of the state's population! The Habitat Conservation Plan is authorized for three years, to provide a period short enough to evaluate the effects of the improved habitat and monitoring activities. Given the number of fledglings produced the first year, Cyanotech has the option of not managing the nesting area for the next two years.