

Refuges Are a Flight Path to Recovery

by Lauri S. Munroe



Operation Migration cranes follow ultra lite craft.
International Crane Foundation

In 1903, at the time the National Wildlife Refuge System was getting its start at Pelican Island, whooping cranes (*Grus americana*) could be seen migrating over the eastern United States. In the next decade, however, the flock dwindled and disappeared. Now, in the System's centennial year, whooping cranes once again grace the Eastern skies, thanks in part to National Wildlife Refuges (NWRs) and the people who manage and support them.

In 1999, the Whooping Crane Eastern Partnership, a group of government agencies and nonprofit organizations, including the Fish and Wildlife Service, developed a plan to reestablish an Eastern flock of migratory whooping cranes. Integral to the plan's success are breeding and wintering areas and migration stopovers. Necedah, Chassahowitzka, Muscatatuck, and Horicon NWRs help to fill these needs.

Following a trial run with nonendangered sandhill cranes (*Grus canadensis*), whooping cranes were guided by ultralight aircraft from Necedah NWR in Wisconsin to Chassahowitzka NWR in Florida in 2001. After wintering at Chassahowitzka, five birds returned unaided to Necedah. They were the first of their species to migrate instinctively over the eastern U.S. in almost 100 years. As the fall of 2002 approached, researchers hoped the cranes would fly south unassisted, while a new flock of whoopers trailed ultralights.

Hosting whooping cranes and the people associated with them is a huge responsibility. Providing for birds, biologists, pilots, crew, media, and the public is no small feat. Dedicated refuge staff, volunteers, and Refuge Friends

groups have supplied time, money, and labor to make the project a success.

On the ground, the first priority is protecting the cranes from predators and curious people. Refuge staff built large, fully enclosed pens at remote sites at both Necedah and Chassahowitzka. Armored wire fencing with additional electrified strands deters assaults by everything from alligators to bobcats. At Necedah, staff constructed both night- and day-pens, as well as flight training areas, at four locations.

The pen at Chassahowitzka, located in a salt marsh, was particularly challenging to construct. Workers struggled with deep mud and tidal fluctuations. Materials were transported by airboat. Refuge volunteers and friends, members of the local Audubon Society, and staff from other Service offices and the state-owned preserve north of the refuge all pitched in to complete the work. Jerry Shields, a maintenance worker at Chassahowitzka at the time, helped design and build the pen. "It was very frustrating; sometimes we were up to our chests in muck," he said. "But any part I played in bringing the whooping cranes back to Florida was worthwhile."

Refuge habitat management plans were modified to provide open areas for the cranes. Fire staffs from the Lower Suwannee, St. Marks, and Okefenokee NWRs traveled to Chassahowitzka to clear dense stands of marsh vegetation, providing the open habitat the cranes need. In 2001, crews burned more than 2,000 acres (810 hectares), four times the average for the refuge. Airboats and helicopters brought firefighters to the remote area where the cranes were kept. Staff at Necedah burned in excess of 4,000 acres (1,620 ha) and used a

hydro-ax to remove vegetation from hundreds more.

Keeping tabs on the cranes can be a full-time job. Richard Urbanek, a biologist at Necedah NWR, monitors the birds using radio and satellite telemetry. He followed the sandhill cranes in 2001 and the whooping cranes on their journey north the following year. He continues to track the adult whoopers while they are on the refuge. Urbanek has studied cranes for the Service for 20 years and pioneered techniques in reintroducing them to the wild.

"I found my niche with cranes," he said. "I love working with the birds."

Supporting the cranes is only half the story. The refuges provide vehicles, fuel, and housing for non-Service biologists and pilots working on the project. Members of the staff are on-call for maintenance and repair needs. Refuge staffs have struggled to satisfy the public's hunger for information about the cranes, often working seven days a week. The numbers of visitors, phone calls, and email messages have risen dramatically. Media from around the world have covered the story. Refuges have hosted numerous special events. "The office staff has been deluged with inquiries," said Larry Wargowsky, refuge manager at Necedah.

Muscatauck NWR in Indiana has also played an important role in the project. The refuge serves as a stopover point during the fall migration, providing both birds and humans a place to rest and feed. Although 35 private landowners currently allow use of their properties for overnight stays during the migration, the refuge ensures a centrally located, long-term staging area.

While not formally part of the reintroduction plan, Horicon NWR in Wisconsin supported the project in 2002. After returning to Necedah, one of the adult cranes moved slightly south to summer at Horicon. There it found freshwater marsh habitat and solitude.

The cranes have many friends in the Refuge System. The Friends of Chassahowitzka, a nonprofit organiza-

tion, sponsored both public and private events celebrating the arrival of the cranes in Florida in 2001. In 2000, the Friends of Necedah received a \$25,000 grant to remodel pens, create an additional training site, build an underground observation blind, develop educational materials, and purchase radio and



satellite transmitters. Friends of Necedah President Tracey Allen believes, "This work is important for Necedah and the whole Refuge System."

During the Refuge System's centennial, its contribution to the recovery of endangered species like the whooping crane is another cause for celebration. As Jim Kraus, refuge manager at Chassahowitzka NWR, puts it, "The crane project has validated the Refuge System as a tool in saving endangered species. It's important to have a network of lands where major, long-term recovery efforts can take place."

At Necedah Refuge, Larry Wargowsky agrees that habitat is crucial and points out that people are also important. "This has been a commitment for our whole staff for the past three years."

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Pens were constructed at the Chassahowitzka (above) and Necedah NWRs to protect whooping cranes from predators.

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