Endangered species return to restored salt pond in southern San Francisco Bay

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Updated: 09/14/2015 04:45:44 AM PDT

MercuryNews.com

Two endangered species have returned to a nearly lifeless former salt pond in the southern San Francisco Bay, the first proof that the ambitious 30-year South Bay Salt Pond Restoration Project is helping nature heal.

Clapper Rails and Salt Marsh Harvest Mice have been discovered in a rehabilitated pond on the edge of Fremont, buoying hopes that the creatures are returning a century after they vanished due to salt harvesting by agricultural giant Cargill.

"We're ecstatic. It's a milestone," said biologist Rachel Tertes of the U.S. Fish and Wildlife Service, who on Sunday led a small private tour along the dusty levee of the pond, which is closed to the public.

Birds gather in the marsh in the A21 pond at the Don Edwards San Francisco Bay National Wildlife Refuge in Newark, Calif., on Sunday, Sept. 13, 2015.

"It happened so quickly," said Tertes, a member of the team at Don Edwards San Francisco Bay National Wildlife Refuge that found both species only nine years after excavators breached the walls of the toxic pond, allowing natural tidal flows to resume.

The morning sun was just rising over the bay last July when Tertes and a team of wildlife surveyors were suddenly startled by the clattering sound of a pair of Clapper, now called Ridgway's, Rails.

"It was a duet. Male and female, dueling clatters," said Tertes. "It blew everyone's mind."

The team also has caught and released four Salt Marsh Harvest Mice, small creatures with beady eyes, cinnamon bellies and grooved incisors. The mice live in clumps of pickleweed, newly nourished by the fresh waters of Guadalupe Creek.

Populations of both species have declined so precipitously that they're protected by the federal Endangered Species Act.

The project is the largest restoration in the West and the third largest in the country, exceeded only by projects for the Florida Everglades and the Mississippi River.

The land was acquired through a $100 million deal brokered by Sen. Dianne Feinstein (D-Calif.) and a purchasing group that included the State Department of Fish and Game and the U.S. Fish and Wildlife Service using funds administered by the Hewlett, Packard, Goldman and Moore family foundations. The restoration and upkeep of the new marshes are costing much more.

The goal is to return tidal flows to many of the 16,500 acres of salt ponds that ring the bay, sold to federal agencies by Cargill for $100 million in 2003.

Many doubted its success, due to the many salt ponds and the aquatic complexity of the bay.

"For the amount that's been invested, and all of the people who work so hard on these projects -- it makes you feel like the total effort is justified -- that it's been worth doing," said Bob Power, former executive director of Santa Clara County Audubon Society.

"You get to the end of the day and you feel great about saving habitat -- but to have an endangered species show up, in this habitat you've restored? Oh my goodness -- that's the icing on the cake," said Power. "It's the cherry on top."

A few ponds will stay very saline, because salt-loving populations such as brine shrimp and Western Snowy Plovers now depend on them. Some will be brackish. Others are slowly turning fresh.

"We're created a mosaic of marsh and managed ponds, to support a suite of species," said Tertes.

Pond A21 -- near Fremont's Cushing Parkway -- was identified early on as one of the best targets for remediation in the 53-pond system. It is one of three ponds, totaling 500 acres, in the so-called "Alviso Pond Cluster."

It is favored because its intricate web of channels, nourished by Coyote Creek, creates the aquatic complexity that attracts wildlife. And it was not so deep with salt as other ponds, and did not need added soil.

Within six months of levee breaching, it began to fill with sediment.

Then seeds floated in from adjacent marshes, and plants began to germinate. They were followed by little crustaceans, like crabs.

"Mud, water, plants and wildlife all return very quickly given a big nudge in the right direction," said John Bourgeois, executive project manager of the South Bay Salt Pond Restoration Project.

"We can build homes, highways, or salt ponds on the margins of the bay -- but allowing the natural processes to return through restoration efforts reveals the resiliency of these wetlands," he said.

Once 40 percent of the pond was covered by vegetation, the U.S. Fish and Wildlife Service decided to conduct surveys. Now every year between January and April, biologists hold daily 10-minute vigils at seven different "stations" around the pond, counting bird calls. They also check catch-and-release mouse traps.

It was workers with the Invasive Spartina Project, a regional effort of local, state and federal organizations to eradicate the aggressive introduced species of Spartina, or cordgrass, that first sighted a Clapper Rail. But they suspected it had wandered in from elsewhere -- and was merely visiting.

It was the sound of the pair, days later, that confirmed their presence.

"We heard one bird, a male, calling Keck, Keck, Keck," said Tertes. "Then a female: Keck, Keck, Brrrrr. No other bird makes that call."

There's no survey to seek nests or eggs, she said. But biologists hope that future surveys will reveal a rebound in populations.

As tidal marshes expand their hold, biologists hope to see healthier runs of fish and other species.

"We always anticipated the return of endangered species into these restored marshes. It's part of the

reason we are undertaking this work," said Bourgeois.

"However, the speed at which the habitat and wildlife is recovering has been very surprising, even to those of us that do this for a living."

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CALIFORNIA CLAPPER RAIL, OR RIDGWAY'S RAIL

(Rallus longirostris obsoletus)
The rail is grayish, gray-brown, or tan. It has a short neck, slightly down-curved bill, flanks barred with white, and a short tail cocked upward, revealing a white patch. Seeing these birds is difficult due to their elusive nature. Identification is usually made by listening for vocal responses to recorded calls.

It was extensively hunted as a game bird until protective legislation was enacted in 1913. But salt pond construction, pollution and predation by non-native foxes has put it on the brink of extinction.

SALT MARSH HARVEST MOUSE

(Reithrodontomys raviventris)
The southern Bay subspecies of the salt marsh harvest mouse has dark brown fur and a cinnamon-colored or tawny belly. Its tail is fat with a blunt tipped. The upper incisors are grooved.

This species is nocturnal, with particularly noted activity on moonlit nights. It is a good swimmer and climber. Its numbers have falled due to loss of habitat and predation by domestic cats.

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http://www.southbayrestoration.org