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San Pedro beavers doing their job

Dam-building rodents helping restore river

By Arthur H. Rotstein
The Associated Press

Beavers colonizing a stretch of the San Pedro River in Southeastern Arizona have been fruitful and effective - exactly as expected.

The animals have felled trees and built dams, helping restore and expand the river's riparian wonders, said Bill Childress, director of the Bureau of Land Management's San Pedro office.

"They are nature's little engineers, and they do a fantastic job," added Kieran Suckling, executive director of the Center for Biological Diversity. "They do an enormous amount of free work, and an enormous amount to restore ecosystems."

Scientists and environmentalists consider the free-flowing San Pedro a vital ecological jewel in the Southwest. The narrow ribbon of water starts in Mexico, slicing north for 41 miles between the Arizona-Mexico border and St. David.

In doing so, it provides a lifeline for hundreds of species of migrating birds and other animals and is a haven for fish and plants.

And the beavers are helping improve that function, restoring marshy areas along the river's edges.

Congress created the San Pedro Riparian National Conservation Area in 1988, and about five years ago, the BLM, which oversees it, reintroduced a dozen beavers into the river system to help diversify its habitat. The plan is working well, Childress said.

They have created colonies and communities, primarily along about 15 miles of the river, he said. There are now about 60 animals.

The beavers eat both cottonwood and willow trees but most frequently fell small-diameter trees on the riverbank, said Mark Fredlake, a BLM wildlife biologist who monitors the beavers' activities closely.

Because the San Pedro's cottonwood canopy is layered in many areas, with trees sometimes only 2 or 3 feet apart, the loss of a single tree doesn't really affect the canopy, he said.

Fredlake said the big accomplishment from the beavers has been local increases in the water table.

The beavers' dams typically raise the water behind them, creating still-water pools. Water spreads out higher along the riverbanks, where it seeps in and is stored, feeding back out during the dry season, Fredlake said.

Putting beavers back into the river has been successful, he said.

"We've got the localized increases in stream flow that we wanted. We're getting more marshy habitats," with bulrush and cattails, and varieties of willow and other trees that can germinate and colonize, he said.

The added moist undergrowth attracts birds, like the Southwestern willow flycatcher, song sparrow and common yellow throat; great blue herons nest along the river, gravitating toward the beaver-crafted pools that attract some species of chub and trout.

Many of the endangered aquatic and riparian bird species are less associated with free-flowing streams than with wetlands and backwaters that beavers traditionally create, Suckling said.

"It looks to me like the program is doing well," said Suckling, who had initially voiced concerns over whether the beavers might have been reintroduced prematurely.

"It looks like the beavers are doing their jobs. They've been reproducing like rabbits and creating ponds and wetlands that are critical to proper stream functioning, and the riparian trees have recovered" to the point where beavers are not a problem, Suckling said.

The furry brown rodents are prolific, Childress said. They've built about 18 dams, some now abandoned, he said.

Fredlake said there are about a dozen current beaver colonies.

The beavers can reach more than 50 pounds and are characterized by flat tails and large teeth, with which they've probably chewed through hundreds of trees lining the river's banks, wildlife officials said.

Their dam construction is impressive, reflecting a certain level of engineering because they aren't necessarily straight across, Childress said.

Sometimes the dams have more of a serpentine or "S" design, which seems to handle and deflect flooding, he said.

Other times, Fredlake added, they may be in a "U" shape, the open end facing upstream.

The beavers use cottonwood and willow branches and twigs, brush and smaller plants, packing holes with mud. Childress said water can back up as much as a quarter of a mile.

The beavers typically dig their dens in riverbanks, above water level. "They actually tend to create their own habitat for themselves," he said.