

Colombia's Critically Endangered Cotton-Top Tamarins Inspire Savage Devotion

By David Dudenhoefer

When the Anne Savage saw her first cotton-top tamarin (*Saguinus oedipus*) – a fluffy, squirrel-sized primate with the voice of a warbler and the hairdo of a heavy-metal vocalist – in a biology lab at the University of Wisconsin, she thought it would be a great animal to study. That turned out to be a fortuitous encounter for the entire *Saguinus* species, because Savage has spent much of past 25 years working for its conservation.

The cotton-top tamarin is native to the humid and dry tropical forests of northern Colombia – wilderness that has been shrinking for decades. During the 1960s and '70s, between 20,000 and 30,000 cotton-top tamarins were shipped to the United States for use in biomedical research, which led the species to be listed as endangered. Though their export was banned years ago, hunters continue to catch the tamarins for the local pet trade. But the biggest threat to the species is the widespread deforestation of its range.

Cotton-top tamarins are currently one of the world's most threatened primates – the IUCN listed it as critically endangered in 2008. Savage coordinated the first cotton-top tamarin census in 2005-2006 and determined that there were just 6,000 left in the wild, which led to its critically endangered status.

According to Rosamira Guillen, executive director of the Colombian Fundación Proyecto Tití (tamarins are called “titís” in Colombia), the species is largely restricted to forest patches surrounded by pasture and farmland. She says biologists who conducted the census studied satellite images to identify potential tamarin habitat, but when they visited those forests, they found some of them devoid of cotton-tops, because the tall trees that tamarins sleep in had been removed by loggers.

“It has very much been an uphill battle,” notes Savage, who founded Proyecto Tití (<http://proyectoTití.com/Default.htm>) in 1985. When she began working in Colombia as a graduate student, she surveyed local people and found that most couldn't identify a cotton-top tamarin, didn't know that the species is only found in Colombia, and had no idea it was endangered. “I realized that we would need to start educating communities if we were ever going to be successful in protecting the cotton-tops,” she says.

Savage launched an environmental education program in communities near cotton-top tamarin populations in 1987 and expanded it to include teacher training and field trips in the 1990s. She met Guillen, who was then director of the Barranquilla Zoo, when they collaborated on an educational exhibit to increased awareness of the cotton-top's plight and discourage people from purchasing them as pets. Guillen later left the zoo to head Proyecto Tití in Colombia. Savage head the U.S. equivalent and works for Disney's Animal Programs managing conservation efforts for an array of species.

Guillen hopes the cotton-top tamarin will become a flagship species for Colombia's dry tropical forest, which has been reduced to a tiny fraction – a 1993 study estimated 1.5

percent – of its original extension. Though flagship species are typically charismatic megafauna, Guillen thinks that a cute-and-fuzzy minifauna could be instrumental in saving forest patches that provide habitat for an array of wildlife, including many migratory bird species that winter in Colombia.

Cotton-top tamarins are actually as admirable as they are adorable. Savage and colleagues have discovered that their colonies are exceptionally cohesive – violence among cotton-tops is rare, males and females share parenting duties, adults feed and protect all the children in a group, and newcomers are readily accepted. But although cotton-tops are peaceful, efforts to study and protect them have been hindered by Colombia's internal conflict. According to Guillen, 70 percent of the species' range was deemed unsafe to visit during the census. Savage began studying the species near Colosó, in southern Sucre department, but when that area became too dangerous, she relocated to Hacienda Ceibal, a vast ranch between Cartagena and Barranquilla.

Because the only remaining cotton-top habitat in that region is on farms and ranchland, Proyecto Tití is working with The Nature Conservancy (<http://www.nature.org/wherewework/southamerica/colombia/>) to promote conservation on private lands. Guillen says Hacienda Ceibal's owner is in the process of registering his 939-acre (380-hectare) forest as a private reserve, and there are forest patches on nearby ranches that she hopes to protect, either by obtaining donations to purchase the land, or by convincing the owners to register them as private reserves.

Several protected areas overlap the southern half of the cotton-top's range, but satellite images show that they've also suffered extensive deforestation. Savage realized early on that poverty drives rural people to capture tamarins and destroy their habitat, so she started promoting alternatives to that predation. Proyecto Tití began teaching people to make *bindes* – energy-efficient wood stoves – in 1992, which has decreased deforestation for firewood. But the most successful alternative has been the *eco-mochila* – a version of the traditional Colombian woven shoulder bag made from recycled plastic bags.

Savage and colleagues came up with the idea then hired consultants to perfect the *eco-mochila* and train local women to make them. To date, approximately 300 women in 10 communities near cotton-top populations have been trained to make *eco-mochilas*, which Proyecto Tití markets in the United States.

According to Jerry Montgomery, a retired Disney executive who and has been involved with Proyecto Tití for years, the *eco-mochila* project has had a major impact on communities. “When I first went there, the women didn't have money to buy school uniforms for their kids. Now some of them have built new houses with their earnings, and they are all thinking about the environment in a fundamentally different way,” he says.

Savage notes that the income and process of organizing themselves have empowered the women, who now recycle about two million plastic bags per year. One women's group decided that their community needed a conservation center, so they saved for two years

and purchased land for it. Savage has since secured funding from Disney and other donors for the center's construction.

"They have started to think about the future. They've become guardians of the cotton-top tamarin," she enthuses.

Despite the transformation of those villages, the future remains bleak for the majority of cotton-top tamarins. Proyecto Tití currently works in less than 30 percent of the species' range, but habitat destruction is rampant throughout it. As Savage explains: "We would love to expand the program, but that would require that we establish a strong market for the eco-mochilas, and secure funding to train more artisans."

The economic downturn caused *eco-mochila* sales to plummet, so last year, Savage approached Emerging Wildlife Conservation Leaders (http://www.ifaw.org/ifaw_united_states/join_campaigns/national_regional_efforts/emerging_wildlife_conservation_leaders/index.php) (EWCL) – a collaboration of half a dozen conservation organizations and donors – for help expanding the eco-mochila market. Pamela Flick, an EWCL participant from Defenders of Wildlife, explains that she and her EWCL colleagues are trying to open new *eco-mochila* markets using social networking sites, special events and media exposure.

"The *eco-mochila* project is a win-win because it helps keep communities clean, women are making money, it is a source of pride, and it changes the dynamic between local people and the environment," says Flick.

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