

Río Grande

Ecological Services Field Office Puerto Rican Parrot Recovery Program



All photos USFWS (top to bottom)

Caribbean National Forest

Endangered Puerto Rican parrot

Following released Puerto Rican parrots using radio telemetry

Monitoring captive nesting activity.



Station Facts

- Established: 1990.
- FY 07 budget: \$1,253,986.
- Number of staff: 11.

Station Goals

- Coordinate management and research/recovery efforts for the endangered Puerto Rican Parrot (*Amazona vittata*), one of the 10 most endangered birds in the world and the only native parrot in U.S. territory.
- Promote the conservation of habitat for the Puerto Rican Parrot and other endangered, native, and migratory bird species.
- Promote international technology interchange to assist other island nations in the Caribbean in the management of their natural resources.



Services provided

- Technical and veterinarian support to the Puerto Rico Department of Natural and Environmental Resources Aviary in Rio Abajo
- Technical assistance at the national and international level to other avian recovery programs.



Activity Highlights

- Released captive-reared parrots into the wild at the Caribbean National Forest.
- Restored nest cavities and field infrastructure in the Caribbean National Forest after the

devastation of the Puerto Rican Parrot population and its habitat by hurricanes.

- Coordinated interagency recovery efforts and developed strategies to deal with predators, competitors, nest guarding techniques and survey methodology.
- Exchanged technology and technical assistance with the Río Abajo Aviary managed by the Puerto Rico Department of Natural and Environmental Resources.
- Managed captive population to assure production of individuals to be released into the wild, wild manipulated nests, and facilitated surrogate parents for double clutches of active wild nests.
- Designed and coordinated research projects to develop and refine techniques for the reintroduction of captive-raised parrots into the wild.
- Promoted international technology interchange with neighboring Caribbean nations including the training of biologists and technicians from different countries and conducting workshops on the techniques used in the Puerto Rican Parrot recovery program.

Questions and Answers

What are the functions of the Puerto Rican Parrot Recovery Program?
The Puerto Rican Parrot Recovery Program is responsible for the coordination of all activities involved in the conservation and recovery of the Puerto Rican Parrot. Recovery activities include interagency coordination of management and research projects, the protection of wild nests from predators and competitors, the management of two

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captive flocks, and promoting the conservation of habitat for the future reestablishment of more wild populations.

I have seen parrots about everywhere in Puerto Rico. Is the Puerto Rican parrot really endangered? and if so, why is it endangered?

The Puerto Rican Parrot is one of the 10 most endangered bird species in the world and the only native parrot under United States jurisdiction. However, many other exotic parrot species have been introduced to Puerto Rico mostly because of the pet trade.

The oldest wild population of Puerto Rican parrots survives at the Caribbean National Forest (El Yunque) in eastern Puerto Rico. A second population is currently underway. In November of 2006, 22 parrots were released in the Río Abajo Forest in Utuado Puerto Rico. As with many other endangered species, a major cause of the plight of the Puerto Rican Parrot has been the conflict between human population growth and land use practices with the conservation of wildlife habitat. The Puerto Rican Parrot requires mature cavity-forming trees for nesting. Agricultural practices reduced the amount of mature forest areas available in Puerto Rico, thus affecting the parrot population. This reduced population became susceptible to the impact of natural and introduced predators, competitors, and the effects of hurricanes.

How many Puerto Rican Parrots exist, and where are they?

As of April 2007, close to 200 Puerto Rican Parrots exist. Of those, 159 parrots are in captivity and approximately 30-35 individuals are in the wild. The captive population was divided into two flocks in 1993. The Puerto Rico Department of Natural and Environmental Resources manages one of the captive flocks at the José L. Vivaldi Memorial Aviary in the Río Abajo Commonwealth Forest. This forest is located in western Puerto Rico between the municipalities of Arecibo and Utuado. The other captive flock in the Luquillo Mountains (El Yunque), is managed by the FWS Río Grande Field Office staff.

How do the Puerto Rican Parrots make their nests, when do they reproduce, and how long does the family stay together?

Puerto Rican Parrots are secondary cavity nesters. This means they nest in cavities, they can not excavate on their own. They require large trees old enough to form natural cavities. Females make some modifications to form cup shaped depressions at the bottom of the cavities, where they lay from two to four eggs. The breeding season usually starts in January and lasts until May or June. Puerto Rican Parrot pair bonds last until a member of the pair dies. During January, the pair selects the nest cavity. Typically, the pair uses the same nest every year. When the female lays eggs and starts incubating, the male brings her food.

The female incubates the eggs for about 26 days, and the chicks remain in the nest for about 9 weeks. After the chicks fledge, the family remains together until the next breeding season. Sometimes the yearling parrots return to the nest sites with their parents, but the adults regularly expel them from the territory.

If they are endangered in the wild, why do you have Puerto Rican Parrots in captivity?

The captive flock was established in 1973 to assure the survival of the species should a catastrophic event eliminate the wild population. In 1975, only 13 parrots remained in the wild. In addition, the captive flock has provided the opportunity to enhance wild nest productivity through fostering and double-clutching.

Fostering is a successful way to integrate young parrots that were bred in captivity to the wild. Double-clutching is when eggs are removed from the nest to stimulate the production of a second clutch. The first clutch is taken to the aviary and raised by foster parrots or placed in the incubators.

What is the status of the released captive-reared birds?

After conducting an extensive pilot study in the Dominican Republic using Hispaniolan Parrots (*Amazona ventralis*) as a surrogate ecological model, a protocol and methodology was developed for the released

Puerto Rican Parrots in the Caribbean National Forest. Radio transmitters were used for the four releases of parrots to track their movements and determine survival.

Following the first release of 10 Puerto Rican parrots on May 2000, 90% of the individuals survived for two months indicating that the parrots were in good physical condition and capable of locating food. Released parrots were documented using areas historically occupied by wild parrots, as well as traveling with wild birds. The survival trajectories after four releases indicate that 45 to 50% of released Puerto Rican Parrots survived at least until the radio batteries quit working (6-9 months after the releases).

The parrots released in Río Abajo are monitored by the Department of Natural and Environmental Resources. The survival rate of those parrots is close to 50% which falls within the expected range.

The results, to date, indicate that releases of captive-reared birds are a promising technique to speed the recovery of this critically endangered parrot, especially with respect to reestablishing a second wild population outside the Caribbean National Forest.

Are there plans to release more captive-reared birds?

The plan is to use captive-reared birds to establish other wild populations and supplement the existing wild population in El Yunque. The first release of captive-reared parrots outside of El Yunque was done in November of 2006 at the Río Abajo Forest. Río Abajo is located within the rugged topography of the karst region of Puerto Rico, area with the most extensive continuous forest canopy in the island. In 2007 and 2008 more parrots will be released at the same location where we hope the parrots will flourish. After 2008, the plan calls for alternating releases of parrots on a yearly basis between El Yunque and Río Abajo. Scientists are already working to identify potential locations for a third population.