



# Puerto Rican Parrot

## Questions and Answers



USFWS

### Why is the Puerto Rican parrot endangered?

The main reason is habitat loss by deforestation in conjunction with high rates of mortality and low rates of reproduction. In addition, hurricanes, hunting, crop protection, natural enemies, and nest robbing in the early 1900's have contributed to the decline of the parrot. Current habitat quality and other human-related disturbances also play a role.

### How many Puerto Rican Parrots are left in the wild?

The current estimated wild population is 34-40 parrots.

### How do you know that there are only 34-40 birds and not more; how do you count them?

We conduct periodic population surveys in the Caribbean National Forest. We use canopy level observation platforms to count the parrots at their nesting and roosting sites. Before each count, we survey other areas in the forest to determine parrot presence. If parrots are present in other areas, we send observers to those areas during the population survey. During the survey, all observers maintain communication using radios to avoid duplication of counts. There is always a chance that some birds are not counted, but we believe our population estimates are reasonably accurate.

### How many parrots have been raised in captivity?

The captive propagation program began in 1972. Today, there are 143 parrots in captivity. These birds are maintained in the Río Abajo and Luquillo aviaries.

### Where are the two aviaries?

The first and oldest aviary, known as Luquillo Aviary, is located within the Sierra de Luquillo Mountains at the Caribbean National Forest. The second captive-rearing facility, known as the José Luis Vivaldi Aviary, is located within the Río Abajo State Forest in Utuado.

### Why are wild parrots only found in the Caribbean National Forest?

The destruction of native lowland forest forced the parrots to seek refuge in the remaining fragments of mature forest. Although El Yunque, also known as the Caribbean National Forest, is considered sub-optimal habitat, it was the largest fragment of mature forest left in Puerto Rico where the parrots could find nesting trees. Hurricanes in 1899, 1928, and 1932 also greatly contributed to the destruction of the parrot's habitat, especially in northwestern Puerto Rico. Thus, the Caribbean National Forest, a federally protected area, offered the only remaining safe refuge for the parrot against its many enemies.

### Are you sure they are not found elsewhere?

As far as we know, no other population of Puerto Rican parrots survives in the wild. We constantly survey areas outside the Caribbean National Forest and frequently respond to reports of parrots in other locations. On every occasion, the birds reported as Puerto Rican parrots are one of the exotic parrot species that have been introduced in Puerto Rico.

### How often do they reproduce and how many eggs are produced?

Puerto Rican parrots mate for life. They reproduce once a year, between the months of January and July. The female lays three to four white eggs, incubating them for 24 to 28 days. Once the eggs hatch, it takes 60-65 days for the chicks to fledge.

### Where do they nest?

The parrots are secondary cavity nesters. That is, they nest in tree cavities, but they cannot excavate them. The parrots use cavities primarily in palo colorado (*Cyrilla racemiflora*) trees. Laurel sabino (*Magnolia splendens*) and tabonuco (*Dacryodes excelsa*) trees are also used for nesting. The nesting cavities are usually a considerable distance above the forest floor. This affords the nest protection from most predators. The availability of suitable cavities has been one of the factors limiting the species recovery. For that reason, artificial nest cavities are used to enhance nesting habitat.

### Why is the Puerto Rican parrot important to the people of Puerto Rico?

The parrot is important because it is an endemic species, unique to Puerto Rico, and found nowhere else in the world. The parrot or "Iguaca" is an important part of Puerto Rico's natural and cultural history, and serves as a symbol of national pride and natural resources conservation. In addition, years of recovery efforts have revealed the importance of the Puerto Rican parrot habitat for the conservation of other important ecological resources such as water, soils, and forests.

### How important is the release program of captive-reared Puerto Rican parrots?

Due to the small size of the wild parrot population, it is extremely vulnerable to extinction. Disasters such as hurricanes and disease could destroy the species very quickly. To save the species, it is necessary to increase the numbers of parrots through captive breeding. When possible, chicks are fostered into wild nests to increase numbers in the wild population. This technique is limited by the number of nesting pairs in the wild in any given year. Since not all chicks are fostered into the wild, the aviary populations are expanding. We release captive raised parrots to increase the wild population thereby augmenting recovery opportunities.

### How are the released parrots monitored?

We use radio telemetry to follow the released parrots for the first 9 months after released. Radio telemetry consists of a small lightweight radio installed as a collar at the base of the neck of each individual bird. The radios transmit unique signals for each parrot that are detected using receivers. The information is used to determine survival and habitat preferences of the released birds.

### How many of the released parrots survive and what are the causes of mortality?

After three releases of 10, 16, and 9 Puerto Rican parrots in the Caribbean National Forest in the years 2000, 2001, and 2002 respectively, the survival trajectories indicated that 45 to 50% of the released birds survived at least until the radio batteries stopped working. Through radio telemetry, we discovered that the major sources of mortality for the released parrots and the wild fledglings are predation by Red-tailed hawks (*Buteo jamaicensis*) and inclement weather.

### How many of the released parrots survive to reproduce?

Since the signal only last for nine months, we can only follow the released birds for a limited period of time. However, there are indications that some birds with radios on their necks are attempting to reproduce in the Caribbean National Forests.

### Why are you using radios that only last for nine months, thus limiting the information obtained from the released parrots?

One limitation of the radio telemetry technology is that the radios operate with batteries. The longer the transmitting lives of the radios, the larger the batteries they require. A heavy battery would increase the weight the parrots have to carry around their necks and could reduce their chances of survival.

### What protection does the parrot receive as an endangered species?

The Puerto Rican parrot is protected under the Endangered Species Act of 1973 which states: to kill, damage, harass, trap, buy or sell an endangered species or parts and products derived from that species is a violation of the Act, and can carry a fine up to \$100,000 and/or one year in prison.

### Who is responsible for the protection and recovery of the parrot?

The recovery program for this species is a cooperative effort lead by the U.S. Fish and Wildlife Service in collaboration with the USDA Forest Service and Puerto Rico Department of Natural and Environmental Resources.

### What is the next step in the process to recover the Puerto Rican parrot?

After the release of Puerto Rican parrots in the Caribbean National Forest, the next step will be the reintroduction of the species to its historical habitat such as the Karst areas on the northern slopes of Puerto Rico.

### Will the parrot ever be taken off the endangered species list?

Yes. If the recovery objective is met, the parrot will be down listed from endangered to threatened status by the year 2020.

### What can you do to help the Puerto Rican parrot?

Support land and habitat acquisition or protection by conservation agencies and organizations. Get to know more about the natural resources that surround you. Join a conservation group. Do not buy exotic or wild animals as pets. If you already have exotic pets, do not release them. Report any violations of wildlife and conservation laws to the state and federal authorities. Talk to your friends and peers about the importance of conserving wildlife habitat for the benefit of endangered species and the people.

### For more information, please contact:

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