

Propagation of the Peruvian Pigeon

at the San Antonio Zoological Gardens and Aquarium

by Jeff Rouse, Curator of Birds

The Peruvian or Salvin's Pigeon (*Columba oenops*) is very closely related to the Red-billed Pigeon (*Columba flavirostris*) with which it forms a super-species. One of the more obvious morphological differences is that the Peruvian Pigeon has a black or bluish-gray bill tip, compared to a bone-colored tip in the Red-billed Pigeon. Also, the nape and shoulder areas in the Peruvian Pigeon are more of a reddish-brown compared to gray in the Red-billed Pigeon. The sexes are similar in appearance.

Range

The Peruvian Pigeon was recently found in Ecuador, occurring from southeast Ecuador to Peru. It also occurs in northern Peru, from The Upper Marañon Valley to La Libertad. The Peruvian Pigeon prefers riparian forest dominated by large willows. Bird Life International lists this bird as vulnerable due to loss of habitat. *The Handbook Of Birds of the World* has listed the pigeon as vulnerable. Surveys are needed on this bird to establish its range and current numbers before conservation efforts can be started.

At the Zoo

The San Antonio Zoo in San Antonio, Texas first acquired Peruvian Pigeons in February 1995. These birds were some of the first of their species to be imported into this country and were collected in the Marañon Valley of Peru. Two pairs were acquisitioned, and one pair went on exhibit after going through a forty-five-day quarantine. (All newly acquired birds undergo a thirty-day quarantine, with the exception of doves and parrots. These two

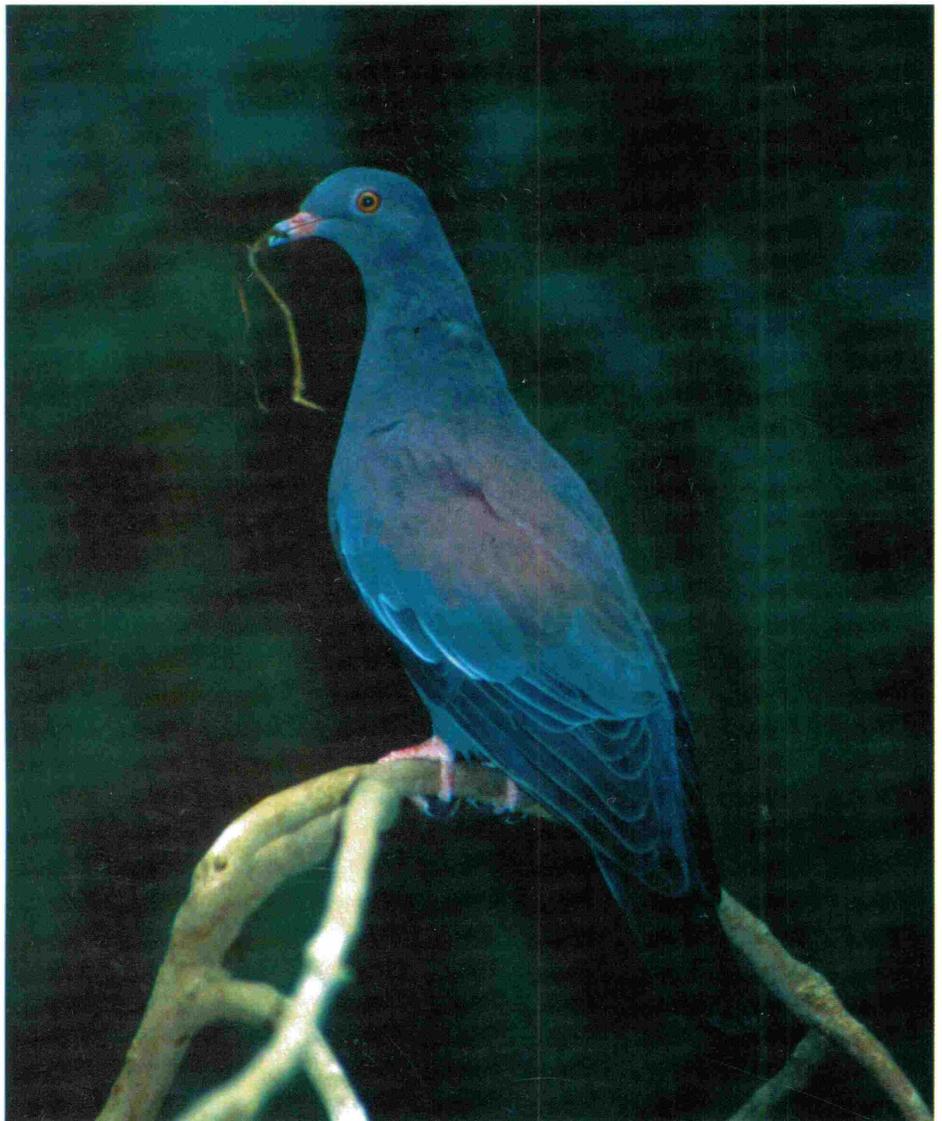
groups of birds are held longer for observation because of their vulnerability to chlamydiosis.) The second pair was set up as a breeding pair in our Avian Reproduction Center (ARC). The ARC is an off-exhibit outdoor facility dedicated to breeding priority avian species. The ARC consists of eleven pens measuring eight feet wide by eighteen feet long by

seven and one-half feet tall. The heavily planted rear portion of each pen has a sand and soil substrate, while the keeper access area in the front pen has cement flooring. The Peruvian Pigeons were moved into the ARC on April 7, 1995 and were offered a diet consisting of Purina avian pellets with added yellow corn. The birds did not seem to eat anything for the first three days in the new enclosure, but they settled in after that.

Breeding

The birds made no attempt to build a nest or use any of the baskets that were provided for them. In early October of 1995, a twelve inch wooden box was provided to them.

Photo by Jeff Rouse



The beautiful Peruvian Pigeon.

The front was open, with a three-inch lip across the bottom of the box, and the box was attached to the side of the pen six feet off the ground. Pine shavings were placed in the nest box. The pigeons showed little initial interest in their nesting box except for perching on top of it. On November 2, 1995, the male was observed spending some time in the box. On November 6, an egg was found in the nest box. The birds were observed taking turns incubating the egg, then on November 8, the birds were determined to have abandoned their nest and egg.

The egg was pulled and placed under Ring-necked Doves (*Streptopelia capicola*) in our foster dove colony. This has been a very beneficial husbandry technique and has worked well for us when eggs are abandoned, when eggs are laid by parents that will not raise their young, or when we have incubator problems. In fact, the foster dove colony at the San Antonio Zoo has foster-reared 12 species of columbiformes.

Foster Rearing

The foster dove colony consists of ten pairs of Ring-necked Doves held in three-foot by four-foot by three-foot cages. The foster colony is fed a crumble diet of poultry chick starter with a protein content of 18.5%. The Peruvian Pigeon egg weighed 15.4 grams and measured 37.8 mm by 27.6 mm when it was placed under foster doves. The egg hatched after a sixteen-day incubation on November 20, 1995. The squab weighed 16.6 grams when it was first weighed on day three. The squab

gained an average of 19% of its weight each day for the first twenty-eight days. The gains varied from 0.8% to 40%. The squab weighed 89 grams when it first left its nest at day twelve and 144 grams when it was first seen perching at day twenty. After day twenty-nine, the bird's weight fluctuated as it was being weaned, with weight losses averaging about 3%, but ranging to as much as 5% lost in one twenty-four hour period. The squab was seen eating on his own at forty-five days of age, when he weighed 230 grams.

Parent Rearing

The breeding pair of Peruvian Pigeons were not observed to lay again until the end of February 1996, when they again were seen spending a lot of time in the box. A broken egg was found under the nest box on March 1, 1996. On March 16, 1996 the male was observed sitting tight in the box all day. It was decided not to check the box and to give the birds as much privacy as possible. The pair was seen swapping out incubation duties over the next sixteen days. On April 4, 1996 the keeper staff observed a squab being fed by one of the parents and estimated its age to be four or five days old. The squab fledged the nest on April 20, 1996 when it was approximately twenty-days of age. The parents were seen feeding the juvenile bird for the next two weeks, even after they laid another egg on the 25th of April and had begun to incubate the egg.

The San Antonio Zoo has since raised a total of twelve Peruvian

Pigeons. The pigeons have been moved to two outdoor mixed flight aviaries. The pigeons have been successfully housed with mot-mots, Helmeted Curassows, Andean Condors, Scarlet Ibis, Sunbitterns, Yellow-rumped Caciques, and many other South American species of birds, and have continued to nest in these mixed species exhibits. They have successfully raised young in typical, flimsy dove nests in the branches of golden bamboo (*Phyllostachys aurea*).

The Peruvian Pigeon has laid eggs in every month of the year at the San Antonio Zoo. The winters in San Antonio have an average of ten days of below-freezing temperatures per year, and the birds have often wintered outside with no noticeable problems. The successful raising of the Peruvian Pigeon at the San Antonio Zoo in 1995 may have been the first time this species was raised in captivity.

The Peruvian Pigeon is not a difficult species to manage if provided with an enclosure large enough to support a sizable, flighty bird. Presently, there are approximately fifty Peruvian Pigeons held in US zoos. The American Zoo and Aquarium Association (AZA) Columbiformes Taxonomic Advisory Group (TAG) is monitoring the genetics of this species, as they are considered a vulnerable species.

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