

A Taxonomic Reevaluation of the Plain Pigeon (*Columba inornata*)

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Three subspecies of the Plain Pigeon (*Columba inornata*) were described in 1915 from very small samples, and the diagnostic color differences among them were rather minor. Examination of the small series (including two types) of the subspecies in the National Museum of Natural History (USNM) revealed that the quality of most of the material available in 1915 was poor and suggested that the supposedly distinctive characters were not consistent.

The Puerto Rican subspecies of the Plain Pigeon, *C. i. wetmorei*, may have become extinct in the 1920's, but a population was rediscovered in 1958 (Leopold 1963); it is now on the U.S. list of endangered species. The population in Jamaica is sparse and may be endangered (King 1981), and concern has long been expressed about the status of the species on Cuba and the Isle of Pines (Barbour 1923: 79, Bruner 1926).

A thorough understanding of the systematics of a species is essential before listing it as endangered, particularly when isolated populations are involved (Banks 1979: 113). This concept, coupled with the rather vague descriptions of the three taxa in 1915 and the fact that *inornata* is the only species of *Columba* thought to vary geographically in the Caribbean, prompted my taxonomic reevaluation.

Vigors (1827) described *Columba inornata* on the basis of specimens from the vicinity of Havana, Cuba that "are in bad condition, and vary among themselves." The noncomparative description and the measurements were of only one bird; age, sex, and date of collection were not given. The name thus applied to the Cuban birds also was used for Plain Pigeons on the Isle of Pines, Jamaica, Puerto Rico, and Hispaniola until 1915 (Ridgway 1916: 296-299), when the first three of these populations were named at the subspecific level.

First, Ridgway (1915a) named *Chloroenas i. exsul* from Puerto Rico. He mentioned and gave the measurements of the type (USNM 236736) only. *Chloroenas i. exsul* was said to differ from *inornata* (presumably Cuban birds, but not stated) by having the "coloration slightly deeper, the forehead nearly, if not quite, concolor with rest of pileum, and white edgings to distal wing-coverts averaging broader." Ridgway also compared *exsul* to "*C. i. exigua*," a nomen nudum as used but intended (as judged from later evidence) to refer to the Jamaican population. The coloration of *exsul* was "less deep" than that of *exigua*. When the several genera into which Ridgway had divided the American pigeons were reunited with *Columba*, the name *exsul* was preoccupied and was replaced with *wetmorei* (Peters 1934).

Todd (1915) described birds from the Isle of Pines as the subspecies *C. i. proxima*, which differed from

inornata (presumably Cuban birds, but not stated) in having the "general coloration decidedly paler and grayer, and the greater wing-coverts with narrower white margins." The type (CM 39892) is an adult male taken 13 December 1912. No other birds were mentioned.

Ridgway (1915b) formally proposed the name *C. i. exigua* for the Jamaican population. The type (USNM 236735) is an adult male taken in February 1866. This bird was compared with *inornata* (presumably from Cuba) as being "decidedly deeper in color, the back and scapulars browner (approaching olive-brown), the head and neck deep vinaceous-drab, the forehead between hays brown and vinaceous-brown, the chest, breast, etc., between sorghum brown and vinaceous-brown." The adult female was compared with the adult male of *inornata* as having the "forehead deeper colored (nearly concolor with rest of pileum)." Measurements of both sexes were given. There was no comparison with the Puerto Rican birds, or those from the Isle of Pines.

Ridgway (1916) summarized variation in the species, and recognized and provided complete synonymies for four subspecies. The primary color description was for the nominate form, *C. i. inornata*, and apparently was based on the one adult male and one adult female for which measurements were given. Soft-part colors for the male were taken from Gosse's (1847) "Birds of Jamaica," with the comment that the Jamaican form doubtlessly agreed with the typical one in these features. A description of the young birds also was given; the basis for the description was not indicated. The range attributed to this subspecies was the "Island of Cuba" and the "island of Haiti." In a footnote, Ridgway mentioned that specimens from Haiti "agree best with Cuban examples, but are somewhat grayer and may prove to be separable." Ridgway's (1916) description of *proxima* from the Isle of Pines was more complete than that given earlier by Todd (1915), but was comparative only with *inornata*; measurements were given for 3 males and 10 females. The description of *exigua*, from Jamaica, was identical to that previously given, but measurements were provided for 3 males and 1 female. Similarly, the description of *exsul* (= *wetmorei*) of Puerto Rico was repeated verbatim from Ridgway's earlier (1915a) paper, but measurements were given for 2 males and 1 female. Ridgway acknowledged, however, that neither of the males had been sexed by the collector.

Ridgway (1916) also provided a comparative table of measurements of the populations, in which he included 2 adult males from Haiti. Thus, the material he had available appears to have totaled 11 males (no

TABLE 1. Measurements (mm) of Plain Pigeons collected from December to April; sexes and age groups are combined.

	Wing length			Tail length			Culmen length		
	<i>n</i>	Range	Mean (SD)	<i>n</i>	Range	Mean (SD)	<i>n</i>	Range	Mean (SD)
Cuba	15	199–225	209.9 (7.5)	15	118–140	131.1 (6.1)	15	17.7–21.0	19.1 (0.9)
Isle of Pines	7	199–214	205.0 (5.5)	6	120–134	127.2 (5.0)	6	19.2–21.8	20.2 (0.9)
Hispaniola	19	202–229	214.7 (7.1)	19	121–140	129.2 (5.7)	17	18.2–21.9	20.2 (1.2)
Jamaica	6	207–228	218.5 (7.5)	6	129–141	135.5 (4.8)	6	18.8–21.3	19.8 (1.0)
Puerto Rico	3	206–216	210.3	3	127–130	128.0	3	18.2–19.5	19.1
All	50	199–229	212.3 (7.8)	49	118–141	130.2 (5.9)	47	17.7–21.9	19.7 (1.1)

more than 3 from any population), 13 females (including 10 from the Isle of Pines), and 1 or more juveniles.

Todd (1916) also gathered representatives of all the insular populations, and recognized the same forms that Ridgway did. He had a single bird from Haiti but mentioned 13 birds in the Isle of Pines series, and it is apparent that he and Ridgway were examining essentially the same sets of specimens.

The only later published taxonomic study was that of Wetmore and Swales (1931), who confirmed that the Cuban and Hispaniolan populations constitute a single subspecies. Series taken on those islands in the 1920's permitted them to note (Wetmore and Swales 1931: 190) that "There is considerable individual variation in the depth and suffusion of the reddish color both above and below and also some individual difference in the depth of the gray colors." With the new material, they were able to provide measurements for 10 males and 8 females from Cuba and for 9 males and 7 females from Hispaniola. Birds from the other islands were not included in the comparison.

Todd later compared his original series from the Isle of Pines with newly acquired Cuban birds, and in unpublished notes on specimens at the Carnegie Museum he wrote ". . . I can no longer see my way clear to continue to recognize *proxima*, and relegate it to the synonymy of *inornata* without serious misgivings."

I examined and measured 50 specimens of *Columba inornata* (Table 1) in North American collections that were taken between December and April, before or during the breeding season. I also examined birds taken from July to October, but most of these were worn and molting and not useful for comparison. Birds without collection dates on the labels were considered with the spring birds unless they were molting. I found no consistent color differences between males and females or between age groups, and treated each insular population as a single sample.

Most of the specimen material of this species was collected 55–120 years ago. I have seen only two specimens not available to Wetmore and Swales (1931)

and earlier workers. The earliest specimens, those described from Puerto Rico and Jamaica by Ridgway (1915a, b) and those from Cuba and Hispaniola available then for comparison, are grease-burned and discolored.

The populations of Plain Pigeon have been distinguished mainly on the basis of depth or pallor of color, and of the width of the white border on the greater primary coverts. The latter character is highly variable within each population, and is dependent to some extent on wear. Birds with wide and narrow borders may be found in any population. This character cannot be used to separate populations.

Similarly, the depth of coloration is variable within populations, as noted by Wetmore and Swales (1931) in their examination of Cuban and Hispaniolan series and as suggested by Todd in his unpublished notes. The very old Jamaican birds are dark, but much of this seems to be the result of discoloration from external sources and the effect of grease on the skins. Even these birds, however, match more recently taken specimens from other islands in some respects. Birds from each of the islands from which there are reasonable samples range from darker to lighter. From any of these larger series, pairs of birds can be selected that nearly span the range of color variation suggested by the descriptions of the supposed subspecies.

Size was not a factor in the description of any of the populations. Measurements of wing length, tail length, and culmen length virtually overlap (Table 1). Birds from Jamaica average slightly larger than others in wing and tail lengths, and those from Puerto Rico are below the overall mean in culmen length. Samples are too small for statistical analysis.

I believe that *Columba inornata* should be considered a monotypic species. The previous taxonomic distinction of separate insular populations was based on samples that were inadequate in size to show the extent of intrapopulation variation in color.

The Plain Pigeon may have been extirpated from Puerto Rico in the 1920's (Leopold 1963, King 1981). The last museum specimen was taken in 1912, and the last definite sight record was in 1926 (Danforth

1931). There are unverified reports by hunters that the species continued to exist in a few scattered localities (Perez-Rivera 1981). A small population of the birds was discovered on the island in 1958 (Leopold 1963, King 1981), and a single specimen, taken in 1962, was sent to Alexander Wetmore at the USNM. Wetmore apparently identified this specimen as the endemic Puerto Rican subspecies, although I can find no specific indication of that fact in the literature or in any files at the USNM. At any rate, the Puerto Rican Plain Pigeon (*Columba inornata wetmorei*) was placed on the U.S. list of endangered species.

The Puerto Rican population cannot be separated from other populations at the subspecific level. Thus, the identification of the bird taken in 1962 as the subspecies *wetmorei* cannot be accepted as evidence that the Puerto Rican population continued to exist, unreported by ornithologists, from 1926 until 1958. That particular specimen closely matches individuals from Hispaniola and Cuba taken in the 1920's, and my study indicates that it could in fact have been identified as a representative of any population with equal justification.

The arboreal pigeons of the genus *Columba* are strong fliers. It is not unlikely that small flocks of birds from Hispaniola wander irregularly to Puerto Rico, establishing new resident flocks such as the one from which the specimen was taken in 1962. The Mourning Dove (*Zenaidura macroura*) and the White-winged Dove (*Z. asiatica*) have colonized Puerto Rico in the past 50 years (Raffaele 1983). Considering the record of establishment of imported birds in Puerto Rico (Raffaele 1983: 12), it is also possible that some of these columbids were introduced by human agency.

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