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Robert C. Tweit

Kay B. Burk

Stephen M. Russell

Jolan B. Truan II

Philip M. Walters

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Incidence of crossed bills in Inca Doves

Robert C. Tweit, Kay B. Burk, Stephen M. Russell, Jolan B. Truan II, and Philip M. Walters

The ornithological literature indicates that a crossed bill is a relatively common defect in birds (Parkes, 1969 and Pomeroy, 1962). When one of us encountered an Inca Dove (*Columbina inca*) with a crossed mandible, Figure 1, we decided to pool our data and determine the actual incidence. The bird, band number 902-25228, had a bill about 2 mm longer than the normal 12 mm (Figure 2). It weighed 48.5 g when trapped on 1 February 1982. This is only slightly below 51 g, the mean for 75 doves encountered at the same station that month, and the difference is within one standard deviation, 2.9 g. The dove's physical condition was indistinguishable from any other, indicating the bill deformity did not handicap it in feeding. For the Inca Dove in an urban environment with food available at bird feeders, a crossed bill is probably not as life-threatening as it would be to a truly wild bird which must pick up small seeds from the ground (Goodwin, 1977).

We have collectively banded a total of 2350 Inca Doves and have encountered only one other crossed bill, giving an incidence of 0.09%. This is at the lower end of rates reported in the literature based on samples of at least 1000 birds: Great Tit (*Parus major*) 0.77%; European Starling (*Sturnus vulgaris*) 0.3% (Pomeroy, 1962); blackbirds *Agelaius phoeniceus* and (*Molothrus ater*) 0.1-0.2% (Sharp and Neill, 1974); Common Tern (*Sterna hirundo*) chicks 0.07% (Gochfeld, 1975), 0.04% (Hays and Risebrough, 1972); and California Gull (*Larus californicus*) 0.06% (Smith and Diem, 1971).

Since no sign of injury to the bill in Figure 1 is apparent, one assumption is that the defect is of genetic origin. On the other hand Gochfeld (1972) and Collins (1974) have

pointed out that abnormalities could be due to environmental mutagens and thus the incidence of abnormalities in birds would serve as an environmental monitoring tool.

Literature cited

- Collins, C.T. 1974. From the President. *W. Bird Bander* 49:3.
- Gochfeld, M. 1972. Avian abnormalities and the scientific literature. *Am. Birds* 26:705.
- . 1975. Developmental defects of Common Terns of western Long Island, New York. *Auk* 92: 58-65.
- Goodwin, D. 1977. Pigeons and Doves of the world, 2nd ed. Cornell Univ. Press, Ithaca.
- Hays, H. and R.W. Risebrough. 1972. Pollutant concentrations in abnormal young terns from Long Island Sound. *Auk* 89:19-35.
- Parkes, K.C. 1969. On abnormally crossed mandibles in birds. *Wilson Bull.* 81:342.
- Pomeroy, D.E. 1962. Birds with abnormal bills. *Brit. Birds* 55:49-72.
- Sharp, M.S. and R.L. Neill. 1979. Physical deformities in a population of wintering blackbirds. *Condor* 81:427.
- Smith, J. and K.L. Diem. 1971. Incidence of deformed bills in gulls (*Larus californicus*). *Auk* 88:435.
- R & J Associates, 4100 N. Romero Rd., #108, Tucson, AZ 85705; 2738 W. Casas Dr., Tucson, AZ 85704; Dept. of Ecology and Evol. Biology, Univ. of Arizona, Tucson, AZ 85721; 3314 W. Glenn Dr., Phoenix, AZ 85021; 5111 N. Soledad Primera, Tucson, AZ 85718.

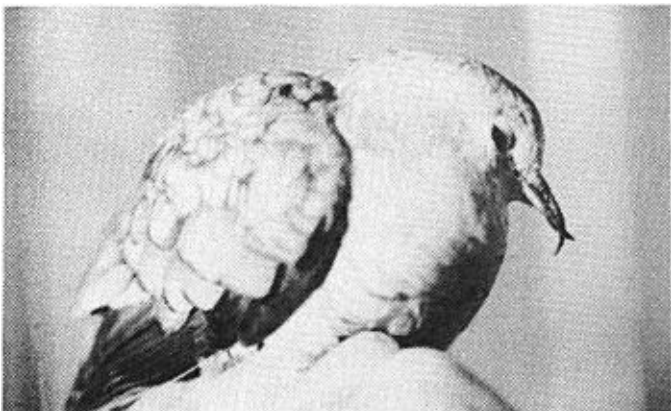


Figure 1. Inca Dove with crossed bill

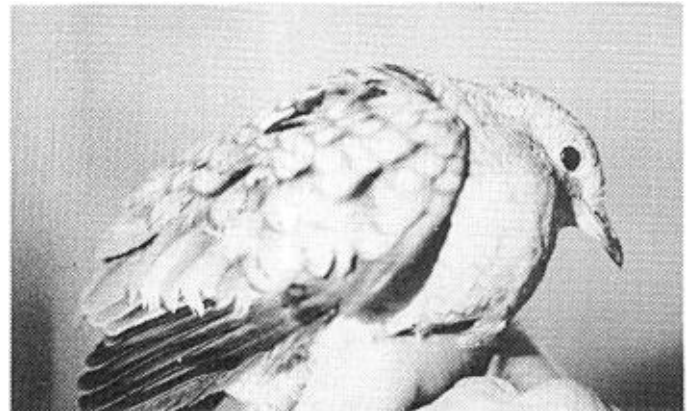


Figure 2. Inca Dove with normal bill