

A SECOND RECORD OF PLEISTOCENE
PASSENGER PIGEON FROM
CALIFORNIA

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Paleontological and archaeological records of Passenger Pigeon (*Ectopistes migratorius*), in the western United States have been recently reviewed by Hargrave and Emslie (Nat. Hist. Mus. Los Ang. Cty. Contrib. Sci. 330:257, 1980). The first fossil record of the species, six elements representing at least two individuals, is from California at Rancho La Brea (see Howard, *Condor* 39:12, 1937). The only other Pleistocene record of Passenger Pigeon in the western United States is from Dark Canyon Cave, Eddy County, New Mexico (Howard, *Condor* 73:237, 1971). With the paucity of Pleistocene records for this bird, the discovery of a new Pleistocene specimen in California, and therefore only the third record in the western United States, is significant. The fossil was found by Richard A. Cerutti in the fall of 1980 in Bonita, San Diego County, California. The locality, SDSNH (San Diego Society of Natural History) 3131, is in a mud-flow facies of a predominantly conglomeratic fluvial deposit mapped as Quaternary stream terrace deposits by Kennedy and Tan (Calif. Div. Min. Geol. Map Sheet 29, 1977). I have tentatively referred mammal material from this locality to *Equus occidentalis* corroborating a late Pleistocene, Rancholabrean, designation.

The Bonita element, SDSNH 23085 (Fig. 1), is an almost complete left tarsometatarsus, lacking only the internal and half of the external cotylae at the proximal end. Measurements: overall length 27.8 mm; width distal end 6.4 mm; depth and width of shaft at midpoint 2.4 mm by 2.9 mm.

This specimen agrees with *Ectopistes* and differs from *Columba* in the five diagnostic characters of the tarsometatarsus given by Howard (1937): 1) lengths similar, but *Ectopistes* more slender; 2) tubercle for tibialis anticus muscle more proximal in *Ectopistes*; 3) proximal ligamentary attachment well developed and clearly marked in *Ectopistes*; 4) distance of facet for metatarsal-I from distal end less than in *Columba*; 5) external condyle less developed anteroposteriorly in *Ectopistes* than in *Columba*.

In addition, I note other subtle differences in tarsometatarsi of *Ectopistes*: 1) hypotarsus with more squared-

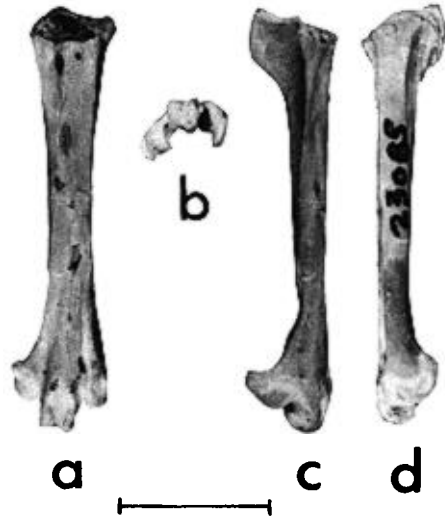


FIGURE 1. *Ectopistes migratorius* (SDSNH 23085), left tarsometatarsus; a, anterior view; b, distal view; c, medial view; d, lateral view. Scale represents one centimeter.

off appearance than *Columba* (in which the hypotarsus gradually slopes distally into a stouter shaft); 2) tubercle for tibialis anticus muscle more prominent and visible from an internal view; 3) trochlea for digit 2 is lower than trochlea for digit 3, and rotated slightly more inward than in *Columba*.

Comparative material examined (all left tarsometatarsi) includes *Ectopistes migratorius* (3), Band-tailed Pigeon (*Columba fasciata*; 2), White-crowned Pigeon (*C. leucocephala*; 1), Mourning Dove (*Zenaidura macroura*; 9), and White-winged Dove (*Z. asiatica*; 2). *Zenaidura* was rejected from consideration here because of its smaller size and generally more delicate construction than SDSNH 23083.

Abundance and distribution of fossil Passenger Pigeons is at best speculative because of the paucity of the data. Only with additional fossil records, such as this one, can a more realistic interpretation of data be made.

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