

standard deviation = 0.91) were compared with the 70 males from the museum. The preparation of Western Sandpipers as museum specimens apparently did not influence the measurements of their bill lengths since the means and variances of the two groups of males did not differ significantly ($P > 0.05$).

Both authors measured every bird and when their measurements for an individual differed by 0.5 mm or more (± 5 birds) remeasured the individual to reduce the error. Following this procedure the variation between the 217 pairs of measurements had a mean of 0.01 mm and a standard deviation of 0.17 mm. The mean variation between our measurements was not significantly different from 0.0 ($P > 0.05$) indicating that there was no apparent bias for one author to record longer measurements than the other.

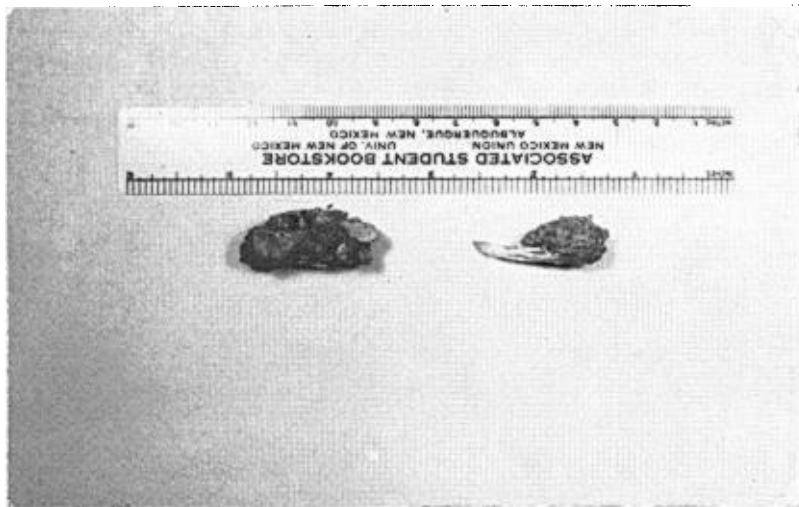
From the above data it appears that bill length is a useful measurement for determining the sex of a high proportion of Western Sandpipers.

The authors thank Ned K. Johnson for allowing them to use the specimen collection in the Museum of Vertebrate Zoology, University of California, Berkeley, and R. Jurek of the California Department of Fish and Game for help in examining the birds from Bolinas Lagoon.—G. Page and B. Fearis, Point Reyes Bird Observatory, P. O. Box 321, Bolinas, California 94924.

This is Contribution Number 36 of Point Reyes Bird Observatory.

Unique Burrowing Owl Pellets.—While investigating Burrowing Owls (*Speotyto cunicularia*) the summer of 1970 in the Albuquerque, New Mexico vicinity I found two rather odd pellets (Fig. 1). The larger pellet measured 3.5 x 1.6 cm and weighed 5.41 g. It was composed of 0.08 g arthropod remains, 0.23 g horse manure, 0.54 g glass, and 4.5 g stone. The stone ranged in size from that of sand to 1.6 x 0.5 cm pebbles. Total inorganic material by weight was 94.4 per cent. The smaller glass spiked pellet was 3.3 x 1.3 cm and weighed 1.87 g including the glass. The glass spike protruding along the long axis of the pellet was 3.2 x 0.4 cm. Due to its uniqueness this pellet was not dissected and remains in the Museum of Southwestern Biology at the University of New Mexico. Superficial examination revealed that the pellet contained remains of a small rodent, arthropods, small stones and one piece of glass. The owls responsible for these pellets remained healthy, but on subsequent visits similar pellets were not found.

FIG. 1. Two glass and stone laden Burrowing Owl pellets.



Though Burrowing Owls do not appear to excavate their own burrows, they do modify existing mammalian burrows (Bent, A. C. 1938. Life histories of North American birds of prey, part 2. *U. S. Nat. Mus. Bull.* 170.). Thomsen (1971. *Condor*, 73: 177-192.) reports Burrowing Owls in California apparently dig with their beaks. She reports sand, dirt and stones to be common in pellets from September-April, with the greatest amount appearing from January to April. At this time the owls are establishing and renovating burrows. She found material in the pellets similar to that of the burrow substrate. Best (unpubl. M. S. Thesis, N. M. St. Univ., Las Cruces) reports Burrowing Owls carry and shred horse manure in their beaks before lining their burrows with it. Thus the manure, stones and glass may all be accidentally swallowed by Burrowing Owls.—Dennis J. Martin, Museum of Southwestern Biology, University of New Mexico, Albuquerque, New Mexico. (present address, Zoology Dept., Utah State University, Logan, Utah 84321)

Wintering Kentucky Warblers (*Oporornis formosus*) and a warning to banders. Two Kentucky Warblers banded in the Panama Canal Zone in 1968 have provided some interesting data on the utilization of wintering grounds by that species. One individual (USFWS band 108-21505) was first banded 26 October 1968 at a forest area on the Navy Pipeline Reservation in the Canal Zone (9° 9' 35" N, 79° 44' 36" W). (For a description of this and other study areas see Karr, J. R. 1971. *Condor* 73: 107-111; 1971. *Ecol. Monogr.* 41: 207-233. The bird was subsequently recaptured in November, December (2 times), February (2 times), March and finally on 10 April 1969. No netting was attempted in January. All captures except the one in April were made in an area no more than 50 meters in diameter. The April capture was made about 150 meters from the center of the other captures. It is assumed that the movement in April signalled the beginning of the northward migration. Although less conclusive other unbanded North American migrants in several lowland study areas were present for most of the winter period in relatively small areas. Progressive plumage changes allowed identification in some cases, such as a male *Piranga rubra*. These observations and those of others (Moreau, R. E. 1966. *The bird faunas of Africa and its islands*. p. 266; Charles Leck, Pers. comm.) indicate sedentary habits (territoriality??) in temperate passerines wintering in tropical areas.

Another Kentucky Warbler (USFWS band 68-78114) was first captured at Chiva Chiva Road in the Canal Zone (9° 03', 56" N, 79° 34' 13" W) on 15 December 1968 during a net period used as a demonstration of techniques to the Panama Audubon Society. During a subsequent net operation the same individual was recaptured in the same area (within 50 to 100 meters) on both 27 and 28 January 1971, over two years later. These observations indicate that Kentucky Warblers, and perhaps other species also, are rather sedentary on the wintering grounds and may return in subsequent years to the same home range.

One other observation of the bird caught in 1968 and 1971 deserves comment. Several loops of mist net were entangled around both shoulders of the bird when it was captured on 27 January 1971. Although no infection was observed the skin was rubbed on both shoulders, presumably from the abrasive action of the net when the bird flew. In two places the skin had healed and imbedded the net in or below the skin. No other adverse effects were noted. Presumably, I, or someone working with me from the Audubon group, did not take the necessary precautions to insure that all netting was removed from the bird. Because of the danger of infection and/or subsequent entanglement great care should be taken to remove all net when it is necessary to cut nets to remove birds.—James R. Karr, Smithsonian Tropical Research Institute, P. O. Box 2072, Balboa, Canal Zone.

Crop Mycosis of Hand-raised Blue Jay Fledglings Cured by Treatment with Milk of Magnesia.—One of the difficulties we have found to be associated with hand-raising nestling Blue Jays (*Cyanocitta cristata*) under confined conditions is a disease similar to one called "sour-crop" in poultry by poultrymen. Veterinary pathologists refer to the disorder as a crop mycosis. Regardless, the causative organism is usually one or more species of a *Mucor* fungus although other related genera may sometimes be involved.

Normal healthy birds about four to five weeks old usually lose the bright red