study of this intermediate specimen as well as other material of both supposed forms, totaling eleven in all, I have concluded that Giai did not go quite far enough and that "*pectoralis*" is in fact only the immature plumage of *poliogaster* and that the name *pectoralis* is a synonym. The chief reason why this has not been appreciated earlier, aside from the previous lack of specimens molting from the one into the other, is the fact that this immature plumage is so distinct and unusual that it is difficult to believe that it can be the forerunner of the plainly colored adult of *poliogaster*. Although there seems to be no other *Accipiter* with quite such a striking contrast between adult and immature, it should be pointed out that in most species of the genus in which the adult is without spots or barring the immature is so marked. *Accipiter b. bicolor* is a good example in the New World and there are others among the numerous species of *Accipiter* in the East Indies and New Guinea.

The species *poliogaster* is a rather unusual *Accipiter*, not only as regards its immature plumage, but also in its relatively short tail and stocky proportions. Some might prefer to give it a genus of its own, as was done long ago by Cabanis who applied the name *Dinospizias* to *pectoralis*. The difficulties of subdividing the genus *Accipiter* are well known and I certainly recommend leaving *poliogaster* in it.

I am indebted to D. Amadon who compared my material with that in the American Museum of Natural History and agreed in the conclusion stated above. Further details and photographs will be included in my forthcoming treatise on the avifauna of Misiones.—WILLIAM H. PARTRIDGE, *Buenos Aires, Argentina, June 19, 1961.*

An Occurrence of the Laysan Albatross on the Northwestern Coast of Oregon.—On July 13, 1960, a Laysan Albatross (*Diomedea immutabilis*) was found washed ashore on the beach between Gearhart and Peter Ihrdale State Park, Clatsop County, Oregon, by William M. Wallace. Due to the state of deterioration it was prepared as a skeleton and no determination of sex was possible. I find no previous mention of this species occurring on the Oregon coast in the literature. The specimen is now in the United States National Museum (no. 431309). I would like to thank Herbert G. Deignan of the National Museum for confirming the identity of the specimen.—LEON A. FREDRICH, *Portland, Oregon, May 14, 1961.*

Flight Speeds of Some Small Birds.—Numerous observers have reported speeds of flying birds, but the measurements have usually been made under conditions in which it was impossible to measure the speed and direction of the wind. The importance of correcting for air movement is shown by the fact that in the speed range of most small birds, failure to make appropriate correction for a wind described by meteorologists as merely a "gentle breeze" may cause calculation of the air speed of the bird to be in error by as much as 50 per cent. The following measurements were made under conditions of known wind speed.

Birds were trapped at Orinda, California, between February 4 and April 5, 1961, and were taken within two hours to a large, corrugated iron, highway drainage pipe 56 inches in diameter. The birds were released singly about 30 feet back in the dark culvert and were photographed with a motion picture camera as they emerged from the pipe. The camera ran at a speed of 68 exposures per second, determined by photographing a long, swinging pendulum of known frequency. As each bird emerged from the culvert, it flew across a 3-foot-wide piece of cardboard ruled with lines one inch apart, thereby making it possible to measure the bird's progression in successive exposures. A large mirror adjusted to the appropriate angle to reflect a second 1-inch grid perpendicular to the first appeared at the edge of each photograph. The position of the bird's image in this mirror enabled one to calculate the bird-to-background distance, and from this to correct for the fact that the bird was closer to the camera than was the background grid. The culvert opened into a sheltered ravine into which wind seldom penetrated. Nevertheless a sensitive wind indicator was placed so as to appear in each photograph. Only on one morning was there a detectable breeze, which was a cool draft emerging from the pipe at 2 miles per hour. Correction has been made for this in the measurements given in table 1.

On one morning the light was so weak that the image reflected in the mirror could not be seen in the photographs, and consequently the background-to-bird distance could not be calculated. In these examples I have assumed that the bird was in the middle of the possible range of distances. This assumption introduces the possibility of an error as great as 10 per cent, so I have placed these values in parentheses. The other measurements are probably accurate to within a few per cent.

When the birds were released in the culvert, some obviously were confused and flew almost at stalling speed toward the exit. Others flew immediately at what appeared to be full speed out of the exit. No claim can be made that these are actually top speeds for the species, but the faster speeds listed are undoubtedly close to those of alarmed birds under their natural conditions and may actually be maximum speeds of the individuals tested. For the passerine species, the faster speeds obtained by this photographic method do not differ greatly from some of the published estimates made by other methods. A speed of 23.8 miles per hour, however, for the Allen Hummingbird (*Selasphorus sasin*) is only half of the 45 miles per hour reported by Hayes for an automobile-paced Ruby-throated

TABLE 1

SPEEDS IN MILES PER HOUR

(Each figure represents a different bird)

White-crowned Sparrow (*Zonotrichia leucophrys*)—19.1, 13.3, (23, 21, 19, 16, 14).
Golden-crowned Sparrow (*Zonotrichia atricapilla*)—20.9, 19.0, 17.2, 15.6, 15.4, 13.5, 13.4, 13.0, 11.5, 10.8 (26, 24, 19, 18, 18, 16, 11).
Song Sparrow (*Melospiza melodia*)—15.9 (21).
Fox Sparrow (*Passerella iliaca*)—9.8.
Brown Towhee (*Pipilo fuscus*)—22.0 (14).
Allen Hummingbird (*Selasphorus sasin*), males—23.8, 18.2, less than 34.9.[1]

[1] Inertia is so great in the camera mechanism that full film speed is not attained until about the tenth exposure of each series. This bird first appeared in the fifth exposure, and so his recorded speed is too high by an unknown amount.

Hummingbird, *Archilochus colubris* (Auk, 46, 1929:116) and much less than half of the 55–60 miles per hour reported by Allard for another automobile-paced Ruby-throated Hummingbird (Auk, 51, 1934:84). These earlier estimates seem to be much too high, however, in view of Greenewalt's recent discovery that Ruby-throated Hummingbirds cannot progress against a 30 mile per hour wind (National Geographic, 118, 1960:673), and in view of Van Riper's photographically-obtained estimates of 18 to 29 miles per hour for Broad-tailed Hummingbirds, *Selasphorus platycercus* (in C. L. Stong, 1960, The Amateur Scientist, Simon and Schuster, p. 178). It seems likely that the cruising speed, and perhaps top speed, of hummingbirds is nearer to 25 miles per hour than to the 50 assumed in my earlier estimate of the maximum flight range of Ruby-throated Hummingbirds (Condor, 52, 1950:145). A second refinement of the assumptions used for that estimate is also possible. On the basis of the data existing at that time I assumed that the migrating bird carried one gram of fat available as fuel. Odum and Connell (Science, 123, 1956:892) have found that Ruby-throated Hummingbirds just before migration contain 2.1 grams of fat. By assuming that 2 grams of this are utilized during a non-stop flight (instead of 1 gram), and that the cruising speed is 25 miles per hour (instead of 50), the earlier estimate of flight range in still air remains unchanged at 385 miles. Probably the weakest of the remaining assumptions used in obtaining this estimate is that the metabolic cost of linear flight is the same as for hovering. It is also possible that dehydration rather than fat consumption limits the length of the flight.—OLIVER P. PEARSON, *Museum of Vertebrate Zoology, University of California, Berkeley, June 15, 1961.*

Tricolored Blackbirds Nesting in Jackson County, Oregon.—Gabrielson and Jewett in collecting material for their book on the birds of Oregon found many old records of Tricolored Blackbirds (*Agelaius tricolor*) in Oregon. These records were all unsupported by specimens. Both authors spent some time in Jackson County, Oregon, but failed to find the species. Johnson Neff and I saw a few at different times in Klamath County and found a nesting colony on the Copco Ranch near Agency Lake in 1933. We collected nine males (Condor, 35, 1933:234–235). At that time these were the only specimens for Oregon.

Sometime in the summer of 1956 I saw 15 or 20 Tricolored Blackbirds on a lawn near the Cottage Street bridge in Medford, Jackson County, Oregon. In May of 1957 several hundred of these black-