

this magazine for January-February, 1922 (p. 26), the same author when speaking of the lack of solicitude for the young displayed by the males of all wild duck species concludes with these words: "In the case of the Buffle-head the males have totally disappeared (apparently all leaving the country entirely) before the first broods of young are seen." To this should be added an observation made in Greenland on the Northern Eider by Mr. Langdon Gibson and reported in the *Auk* for July, 1922 (p. 359): "By July 26, when hatching was completed, males began gathering in large flocks, and by August 5 had disappeared, leaving the females to guide the young ones south." In the July, 1916, *Auk* (p. 258), Professor Julian S. Huxley asks: "If the flock is the unit, does the pair persist within the flock? . . . . In some birds this is definitely not the case, since the sexes separate and the flocks are almost all of one sex: e. g. *Fringilla cœlebs*, the Chaffinch." The last quotation is taken from North American Fauna, No. 46 (p. 28), in which Mr. E. A. Preble relates the exceedingly interesting observations made by himself and by Dr. G. Dallas Hanna on the Pallas Murre, a breeding species of the Pribilof Islands. "By the end of August most of the birds have left the breeding rookeries; at this time many late-hatched young are deserted and soon perish, the desire of the mother to accompany the departing flocks evidently being stronger than the parental instincts. Hanna states that on August 31, 1913, most of the murrets had gone, and that many young ones were falling from the cliffs."

*National, via McGregor, Iowa, December 27, 1923.*

## BANDING NOTES ON THE MIGRATION OF THE PINTAIL

By FREDERICK C. LINCOLN

Contribution from The Baird Ornithological Club

THE following notes, based upon the return records of three banded Pintails (*Dafila acuta tzitzihoa*), it is believed present features of special interest and contribute to our knowledge of the migrations of this species.

Pintails range over most of North America at some seasons of the year, the only portion of the continent where they are not regularly represented being the regions to the north and east of Hudson Bay. Their breeding grounds include practically all of those States west of the Mississippi that are north of the fortieth parallel, although by far the greater number nest in the central Provinces of Canada and in Alaska to the Alaskan Peninsula and the Arctic Coast. During migrations, the Mississippi Valley and Pacific slope flyways are followed by the great bulk of the birds, although they are plentiful at such seasons throughout all of the intervening territory. In winter they are found commonly from the southern limits of their breeding range, south to Cuba, Porto Rico, and the Pacific coast of Mexico. This vast range should be borne in mind when considering the following notes.

Dr. Wetmore has already shown\* that there appears to be a fall migration of Pintails from the Salt Lake Valley, Utah, to the valleys of California, which is further substantiated by recent information from one of the ducking marshes in the northern part of Kern County, California. Mr. Paul S. Wetmore, of Armona, Cali-

\* Migration Records from Wild Ducks and other Birds Banded in the Salt Lake Valley, Utah: U. S. Department of Agriculture Bulletin No. 1145, May 10, 1923, contribution from the Bureau of Biological Survey, by Alexander Wetmore.

ifornia, the observer who secured banded Pintail no. 232018, writes that he has "observed on a good many mornings at about eleven o'clock that there seems to be a good sized flight of large bands of sprig directly from the east. There are no preserves or large bodies of water in this direction sufficient to account for a flight at this time, and the writer is wondering if one of the passage-ways through the Sierra Nevada mountains lies directly east of Tulare Lake." As a matter of fact, in view of the many occurrences of this and other species of ducks on lakes and streams at relatively high altitudes, it is extremely doubtful whether the mountains anywhere offer much of a barrier, although they may have a certain influence in affecting the direction of the migration of many flocks of ducks, as of other groups.

The Pintail killed by Mr. P. S. Wetmore was banded at Davidson, Saskatchewan, August 12, 1923, by Mr. R. Lloyd, one of the Canadian coöperators of the Biological Survey in the bird banding work. It was killed at the Hanford Duck Club in northern Kern County, California, on October 2, 1923. The date of banding strongly indicates a bird that was hatched or had bred in the immediate neighborhood. (Mr. Lloyd's record does not state whether the bird was an adult or a juvenile.) In roughly tracing a probable course for this bird it will be noted that this can be easily done to include a more or less connected chain of lakes south and west through Montana, Wyoming, Utah, and Nevada to the point of recovery. Should further recoveries of banded Pintails bear out this hypothetical route, they will provide the solution for an interesting and important phase in the migration of this species.

It seems advisable to consider the two other returns together, as they were both banded in the Mississippi Valley: No. 102145, male, marked at Oakville, Iowa, on March 10, 1923, by Mr. Allen Green, and killed at Los Baños, California, on October 21, 1923; and no. 203624, female, banded at Portage des Sioux, Missouri, on March 18, 1923, by Mr. John Broeker, and killed at the Grey Goose Hunting Lodge, Butte County, California, on October 8, 1923. In both cases it may be safely assumed from the dates of banding that the birds were moving northward at the time of marking, which is in keeping with the known habits of this species to push north in the spring as fast as open water appears.

Butte County, California, lies in the Sacramento Valley, and the point of recovery is, roughly, about 80 miles north of Sacramento. Although there are numerous lakes and streams that connect this area with the breeding grounds in Alberta and Saskatchewan, in view of the almost directly north and south line of the Sacramento Valley it seems more probable that the birds came from much farther north. Observations in the vicinity of Puget Sound and elsewhere in the States of Washington and Oregon as well as in British Columbia have already established the fact that in the fall this is locally one of the most abundant ducks. It is true that these birds may have bred a few hundred miles to the east and made a short migratory flight directly west. This, however, would leave out of consideration the great breeding grounds of Alaska and the Northwest Territories.

It therefore seems equally probable that the bird in question might have nested in the most northern part of the breeding range of the species and have followed the Pacific coast flyway to about the latitude of Puget Sound or the mouth of the Columbia River, there continuing southward, but inland via the lakes and rivers of Oregon to the northern end of the Sacramento Valley.

The recovery of no. 102145 from Los Baños, in the San Joaquin Valley, about 75 miles south of Stockton, California, adds another bit of substantiating evidence that may with equal propriety be applied to either of the more or less hypothetical routes outlined above.

It is obviously a dangerous policy to attempt to elucidate definitely the movements of any widely distributed species by applying to the case a few records of the positive character of bird banding returns. Such cases, frequently of a most striking and unexpected nature, may be no more than exceptions to a general rule. On the other hand, they often point the way for more extensive investigations by indicating the great fields of the unknown that are still awaiting intensive treatment.

*Biological Survey, Washington, D. C., December 12, 1923.*

## OCCURRENCE AND BEHAVIOR OF CERTAIN SHOREBIRDS IN SOUTHERN CALIFORNIA

By ROLAND CASE ROSS

**T**HE following observations were made in the marshes at Playa del Rey, Los Angeles County, during the period from June 9 to October 7, 1923. There the shorebirds frequent the shallow waters spread out in great sheets over the mud flats, and also the shallow waters found in growths of salicornia and sedgy places. They are less common about the deeper waters, such as in the duck ponds.

**Lobipes lobatus.** Northern Phalarope. On August 30, found in numbers; September 3 there were many large flocks on the ocean beyond the surf, from Del Rey to El Segundo pier; September 10 smaller numbers in marsh; more flocks on ocean. By October 10 only a few birds were about.

They were observed sleeping on land and water, bill along the back under a wing. Their ablutions were absurd attempts to get a swan-like breast and neck under water, when such airy grace and buoyancy forbade any sub-aquatic ventures. To get the proper ducking the Phalarope stretches up and drives his pretty head and breast down in the water, which effort promptly forces his tail-end up; whereupon like a cork he rebounds, to ride high and dry above the water with hardly a sign of moisture on the close-fitting plumage. At once he jerks up and ducks again, and again, all to little avail, seemingly. This up-jerk and ducking motion can be observed at a good distance, and the birds may be identified by it.

The Northern Phalarope is quite fearless in this region but seldom does one find the birds so confiding as in the following instance: Mr. Ray Francisco, the warden for the gun club on this marsh, was working in water a foot or two deep, pulling out sedges, dock and arrowweed. The Northern Phalaropes took an interest in this roiled up water and drew close to dab at the surface and "whirligig" about in their unique way. As the man kept at work they drew nearer until actually about his feet. They stayed with him until he stopped work in that section.

**Steganopus tricolor.** Wilson Phalarope. On July 20 a single bird was seen; on August 16 the birds were reported here in numbers by members of the Los Angeles Audubon Society; on August 30 and on September 1, 3 and 6, a flock averaging twenty individuals, and on September 16 one only.

As I found them the birds kept fairly well together; though scattered they covered a definite area. Among the other waders their uniform gray or brown-gray set them off in a distinct mass. When feeding along the shallows with Least, Western and Red-backed sandpipers, they differed from them not only in size and color, but in their habit of steady, *energetic* walking and the constant "sidesweeping" with the bill. Occasionally they picked objects from the surface with their needle bills, but this was not very actively pursued.

In deeper water they fed among the Northern Phalaropes, Knots and Dowitchers, wading along until they swam in places. However, they were able to wade where the Northern swam. At such depths they feed with the head clear under and the energy of the feeding operation was indicated by the motion of the tail. They commonly walked steadily back and forth through the deeper sections of the ponds, and in such deep places they moved as headless bodies, evidently feeding as usual in