

FROM FIELD AND STUDY

Report on the Colonial Nesting Birds of Great Salt Lake, 1947-49.—Several small islands in Great Salt Lake have long been known to afford sites for some of the largest colonies of White Pelicans (*Pelecanus erythrorhynchos*) and California Gulls (*Larus californicus*) in western North America. A survey was made of these islands and their colonies in 1932 (Condor, 37, 1935:24-35). Since then the pelicans have undergone considerable fluctuation in numbers and population shifts have been occurring with respect to the California Gulls which seem likely to have a profound influence on their economic status in the region. Hence it seemed desirable to again make an inventory of the bird colonies. I was not able to visit all the islands in any one season but several trips made in either May or June of 1947, 1948 and 1949 finally resulted in visits to all the islands. Acknowledgment is due the Sea Scouts (1947), Southern Pacific Company (1948), and Milton T. Rees (1949) for taking me to the various islands. Assistance rendered by the University of Utah Research Fund helped defray travel expenses incurred in connection with the trips in 1947. I am indebted to several colleagues and students who helped band 895 pelicans on Gunnison Island in 1948.

Hat Island.—This island in the past supported a population of thousands of gulls, was used by Great Blue Herons and Caspian Terns upon occasion, and for decades served as the site of a large pelican colony. The island has now been abandoned by all these species. The desertion by the pelicans occurred as early as 1935 (Condor, 38, 1936:220-221) and was associated with a lowered lake level and subsequent loss of protection as the island became connected with the mainland. The colony evidently was reestablished in 1938 (Wilson Bull., 51, 1939:151). That the island has been forsaken again was ascertained by my visit on June 1, 1947. The abandonment of the island by the gulls was discovered, too, at this time. A flock of 13 pelicans and about 200 gulls were present, but there was no sign that either species was nesting. Four deer had wandered over from the mainland. Three Sanderlings were seen on a sand bar. Land birds found there were a pair of Horned Larks, two male Yellow Warblers, two Western Wood Pewees, several Brewer Sparrows, one Rock Wren and a Green-tailed Towhee. Hat Island was deserted by the gulls and pelicans again in 1948 according to David E. Miller who visited it in June of that year.

White Rock.—This rock was visited on June 8, 1947. It still supported a colony of about 700 California Gulls. Three of the latter were collected because they were seen to be wearing bands. It was subsequently determined that the birds had been banded by us at nearby Egg Island in 1939, 1941, and 1942.

Egg Island.—This island was also visited on June 8, 1947. The Great Blue Herons were all gone. The cormorants continued to hold their own, for we counted 94 nests and 122 young. Eighteen of the latter were banded. Most of the young took to the water and we could not capture them. The California Gulls were exceedingly abundant; we estimated that there were several thousand, perhaps as many as 10,000.

Gunnison Island.—Following my census on June 29, 1932, when 3300 nests were counted and it was estimated there were at least 6600 birds utilizing the island, the numbers evidently underwent a reduction, for A. M. Bailey (Bird-Lore, 37, 1935:331) did not find them so numerous in 1935 nor did Cottam and Williams (Wilson Bull., 51, 1939:151) in 1938. By 1943 they still were not as abundant (Behle, Condor, 46, 1944:199). The writer was not able to get to the island in the season of 1947 when the other islands were visited, but fortunately Lee Kay of the Utah State Fish and Game Department made the trip with several associates (Utah Fish and Game Bull., 4(6), Sept., 1947:1, 2, 6). They found that there had been a considerable increase in the number of White Pelicans over previous years. They counted 3123 young pelicans in several colonies and estimated that there were over 700 eggs or young just hatched in colonies that were not disturbed. No attempt was made to ascertain the number of adults but the numbers probably more nearly approached those of 1932 than for any other year to my knowledge. The number of California Gulls they placed at 10,000. Great Blue Herons were in evidence. Ten Rock Wrens and a Prairie Falcon were observed.

I did get to the island the following year on June 11, 1948, with a party of twelve, our major objective being the wholesale banding of pelicans. However, shortly after landing on the island about noon and before there had been much disturbance, I made a sortie to the top of the central peak of the island. From here one could look down on the "saddles" below where the pelicans were

nesting. I tried to arrive at a figure for the total pelican population by sketching the positions of the colonies and estimating the number of adults in each. There were 25 separate colonies varying in size from as few as 25 to as many as 300. The total was 2975 adults. A few were coming in all the time. If in general one adult of a pair was guarding the nest at the time of the count there may have been as many as 6000 birds, in round numbers, utilizing the site. This figure would seem high, however, in light of the nest-count made later in the various colonies which totaled only 1250 nests. If we allow a member of each sex to a nest, the adults would have numbered on this basis about 2500. This would not include some non-breeding birds attached to the colony. Thus the round figure of 3000 birds seen probably more nearly represents the total population of pelicans for Gunnison Island for 1948.

While we will never know exactly how many adults there may have been, it is significant that for a colony in excess of 3000 adults there were only about a thousand young produced, for we banded the great majority of the young on the island. Whereas two eggs are generally laid per nest, the mortality is about 50 per cent, thus resulting in one bird per nest on the average.

There were no Great Blue Herons inhabiting Gunnison Island in 1948 and the California Gulls were still further reduced as compared with their former abundance as noted in 1932. I estimated 25,000 present on this last visit. Other birds seen on the island were the following: Short-eared Owl, Swainson Hawk, Rock Wren, and three Ravens.

On June 11, 1949, another visit was made to the island and the same procedure was followed of climbing to the central eminence with a minimum disturbance to the birds. This time I counted 28 colonies and estimated 3926 or roughly 4000 birds at their nests. As before, groups were returning all afternoon from the feeding grounds to the north and east. No accurate nest count was made although it was my impression that nests were more numerous than in the previous year and that large-sized juveniles were also more abundant. The gulls seemed to be still further reduced, with only an estimated 15,000 present. Two Great Blue Herons were seen but no nests were found.

Discussion.—The changes in the bird colonies of Great Salt Lake involve principally the White Pelicans and California Gulls. In 1932 it was estimated that there were 10,000 White Pelicans breeding in two colonies. Subsequently a long period of drought accompanied by food shortage and lowering lake levels affected the pelicans. The removal of protection through land connections led to the abandonment of the Hat Island colony. The Gunnison Island colony became reduced in size. It is my feeling that a slow recovery is being made from this critical period but the population is only about half that of 17 years ago. The lake level has been rising during the last few years and should this trend continue so that Hat Island is once again surrounded, the colony may become reestablished.

Starting about 1939 and for a few years thereafter, new gull colonies became established at the man-made refuges on the east side of Great Salt Lake, namely the Bear River, Ogden and Farmington Bay refuges. As a result the feeling has grown that the gulls have increased tremendously in numbers in the region. The abandonment of Hat Island as a nesting site and the drastic reduction in their numbers at Gunnison Island serve as evidence that the establishment of the new mainland colonies is not due to an increasing total gull population of the region but to a mass shifting of nesting sites of the species.

When the gulls were breeding at the remote islands and dispersing widely for food over the country to the east and southeast of the lake, they did not seem to be of great economic concern. The "seagulls," as they are locally called, were appreciated for their "following the plough" activities their esthetic appeal and the pioneer tradition of saving the crops. A social taboo prevailed against killing a gull.

Now, within the last few years, concentration of breeding grounds on duck marshes on the east side of the lake which are also in close proximity to cherry orchards along the bench land at the base of the Wasatch Range has been creating problems. It is significant that the attitude of many sportsmen and orchardists is now against this bird which has always been so revered locally because of its part in early Mormon history. Cottam (Condor, 37, 1935:170-171) has discussed briefly the assuming of cherry-eating habits. Some farmers are now shooting the gulls to protect their fruit. Game wardens, refuge managers and sportsmen feel that the predaceous gulls are destroying eggs and young of ducks and other water and marsh birds on the refuges. Sportsmen have passed resolutions condemning the gulls apparently not realizing they are protected by federal law and one hears talk

of "controlling" the numbers of gulls on the refuges. More study is needed on these problems to get the facts. Mr. Clifton Greenhalgh has been making an economic study of the California Gull in the Great Salt Lake region with special reference to food habits. His findings will doubtless have a bearing on these matters.—WILLIAM H. BEHLE, *University of Utah, Salt Lake City, Utah, June 25, 1949.*

The Correct Name for the Mexican Crested Flycatcher.—In the course of a critical study of the types of birds preserved in the collection of the United States National Museum, I have had occasion to examine the type of *Myiarchus cooperi* Baird (*in* Baird, Cassin, and Lawrence, Rept. Expl. and Surv. R. R. Pac., 9, 1858:xxx, 180). I believe there is little doubt that Baird's name must be used for the form currently known as *Myiarchus tyrannulus nelsoni* Ridgway (Bull. U. S. Nat. Mus., 50, pt. 4, 1907:903).

The validity of Baird's name is not affected by *Tyr[annula]. Cooperi* Kaup (Proc. Zool. Soc. London, 19, 1852:51), which is not used by Kaup as a new name, but is simply a misapplication, to an unidentifiable species of *Myiarchus*, of *Muscicapa Cooperi* Nuttall [= *Nuttallornis borealis* (Swainson)].

My view has been shared by Baird (who discussed Kaup's solecism at the place cited), by Nelson (Proc. Biol. Soc. Washington, 17, 1904:25-27), by Osgood (Auk, 24, 1907:219-220), by Richmond (who did not make a card for the combination *Tyrannula cooperi* Kaup in the file of bird names in the U. S. National Museum), by Hellmayr (Cat. Birds Amer., 5, 1927:162, footnote b), and by Dr. H. C. Oberholser, with whom I have recently discussed the case. That Ridgway seemed not to agree may be due to the fact that his manuscript was already in press when Osgood's paper appeared, necessitating a hasty and unconsidered change of name in an addendum. That Hellmayr failed to make the requisite correction resulted from his apparent ignorance of the existence of Baird's name.—H. G. DEIGNAN, *Smithsonian Institution, Washington, D.C., July 25, 1949.*

A Record of the Alberta Fox Sparrow in Manitoba.—A specimen of Fox Sparrow, *Passerella iliaca*, "found dead" at Deer Lodge (near Winnipeg), Manitoba, on October 15, 1932, by Angus H. Shortt, is now no. 29939 in the collection of the Royal Ontario Museum of Zoology. Although the locality is well within the normal range of the typical race, *P. i. iliaca*, the specimen does not agree with that form. In general terms, it is more subdued in color and smaller in size, particularly in wing measurement.

In order to express the degree of peculiarity of the specimen in relation to *P. i. iliaca*, a series of 27 specimens of *iliaca* originating from Yukon and Alberta east to northwestern Ontario and Illinois was graded on the brightness of the reddish ventral markings. Incidentally, specimens from extreme eastern North America were not used because of some evidence that a distinctively bright red or erythristic population may occur there. However, such specimens would be at the opposite extreme from the one here reported. The 27 interior specimens were readily arranged in three grades from bright reddish to dull, or dark, reddish as follows: Grade I, 6 specimens; grade II, 15 specimens; grade III, 6 specimens. Estimated on this scale the specimen in question would fall in a hypothetical grade V, that is, completely out of the scale and beyond the dark end of the series of interior birds. Its ventral streaks are approximately "auburn."

Dorsally also the specimen is distinct from any of the series of *iliaca* from the interior. While the latter exhibit two general phases, that is, a patterned type showing areas of "dark mouse gray" or "olive gray" with areas of "russet" or "mars brown," and a type which has the dorsal grays generally obscured or altered by a wash or streaking of "russet" or "mars brown," the Manitoba specimen is "olive brown" to "mummy brown" on the dorsal region with a central area of indecisive "auburn" streaks. In short, the specimen seems to conform well with the description of the race *P. i. altivagans* of Riley as given by Swarth (Univ. Calif. Publ. Zool., 21, 1920:122). The measurements of the specimen are not out of line with the size range indicated for *altivagans* by Swarth (p. 182).

In reviewing the facts relative to this case, the following seem to bear on the possibility that the specimen is a fortuitous occurrence of a representative of the population of the Alberta Fox Sparrow (*P. i. altivagans*) and not a facsimile of that form arising in *P. i. iliaca*: First, the winter range of both forms coincide in part in southern California. The decoying of an individual of one race into the flock of another resulting in subsequent geographic dislocation seems a reasonable theory