

derricks and electric poles, as on the two-mile electric line between my ranch and Sunnyside, but have returned to their former nesting sites in trees when possible as is shown by the absence of nests in the ten-mile electric line between Sunnyside and Granger, which runs through an older section of the valley which is now abundantly supplied with large trees.

Coincident with this adaptation, though, can be pointed out the great mortality among the young birds in the incompleteness of the adaptation, practically total in the hay-derrick nests, and high in the electric pole nests, in the latter because of the insecurity against winds. A perfect adaptation would avoid the derricks, which are death traps during haying, and would result in building a nest securely enough fastened on an electric pole to avoid blowing down during storms.

Palo Alto, California, January 29, 1915.

NESTING OF THE AMERICAN OSPREY AT EAGLE LAKE, CALIFORNIA

By MILTON S. RAY

WITH FOUR PHOTOGRAPHS BY THE AUTHOR

DURING the past season's work afield (1914) Chase Littlejohn and the writer traveled something over a thousand miles. One of the many side trips taken was from Susanville to Eagle Lake and back, in company with Mr. Frank P. Cady, the district's game warden. As we were engaged in gathering certain data for the Fish and Game Commission, in addition to our own personal field-work, Mr. Cady aided us in every way possible, besides placing his motor car at our disposal.

Although we arrived at Truxell's on the east-central shore of Eagle Lake at dusk on May 16, it was not until we reached Schuler at the northern end of the lake, at noon next day, that we saw our first American Osprey (*Pandion haliaetus carolinensis*). The occurrence of this species was of particular interest to me as Eagle Lake is one of the few points in inland California from which the bird has been recorded as not uncommon during the summer.

On account of the bad condition of the roads we left the motor car at Schuler and continued on to Spalding's, our final destination, by motor boat. At Spalding's, which lies in heavy timber on the southwestern side of the lake,



Fig. 22. NEAR SCHULER, AT THE NORTH END OF EAGLE LAKE. THE REGION HERE IS BUT SPARSELY TIMBERED, IN STRIKING CONTRAST TO THE CONDITIONS AT THE LOWER END OF THE LAKE

and which we reached early in the afternoon, several other Fish-hawks were noted and during the afternoon's ramble I caught sight of the nest of one at the top of a lofty dead pine in a grove of dead trees standing out in the deep water of the lake. Shortly afterward I saw the sitting bird fly off uttering the characteristic clear whistling cry. Being unable, however, to secure a satisfactory photograph of the nest from shore, Chase and I journeyed back to camp and later revisited the spot in a clumsy flat-bottomed boat. This, the

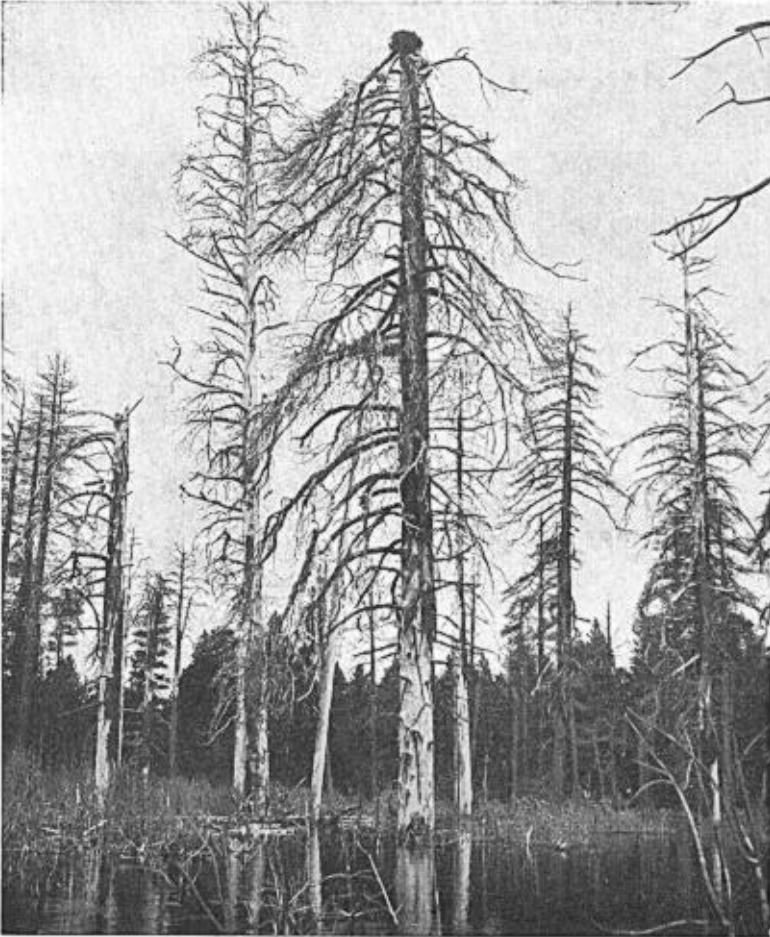


Fig. 23. NEST OF THE AMERICAN OSPREY AT EAGLE LAKE, SITUATED 112 FEET ABOVE THE WATER. IT CONTAINED THREE EGGS ON MAY 17, 1914

only boat we were able to procure, had been used in spearing fish and had a huge iron basket for burning pine cones suspended from a tall pole at the bow. Although the distance was short our craft was so slow that by the time the nest-tree was reached it had grown too dark for picture taking. As we came up an Osprey flew off the nest, and, as the tree in which it was situated, except for its extreme height and deadness, presented no other unusual difficulties, I decided to attempt the climb in order if possible to definitely record its con-

tents. In going up many limbs snapped without warning and it behooved me to proceed very cautiously. After a hard climb, in some respects among the most difficult and dangerous I have ever made, I reached the nest at the top of the pine 112 feet up. The huge affair, of pine boughs and twigs, about four feet across, was so situated that it was difficult to see into the nest cavity itself. After some maneuvering, however, I succeeded in getting slightly above its outer edge and in peering over, when three eggs on an almost level bed of soft green moss, mixed with pine needles and bits of wood, met my gaze. The eggs were apparently but slightly incubated, and while heavily marked were in no wise peculiar.

Next morning, accompanied by Mr. Cady, the locality was revisited and the photographs shown herewith, taken. I endeavored to get a picture of the



Fig. 24. THE SECOND OSPREY'S NEST FOUND. IT WAS 75 FEET UP, IN A DEAD PINE STANDING IN DEEP WATER AT THE EDGE OF AN ISLAND

bird as she returned from time to time to the nest, but in this I was not successful as the constant swaying of the boat made photography of any kind rather difficult.

Although we only rowed a short distance from Spalding's, five more occupied nests of the Osprey were noted. The lake shore here is a succession of coves and it is an interesting fact that the nests were spaced about equidistant from one another. The second nest was 75 feet up in a dead pine standing in deep water at the edge of an island. As the head of a sitting Osprey was scarcely discernible on the ground glass, the bird was roused, and while Cady and Littlejohn explored the upper end of the island, with camera set I awaited the bird's return. The picture shows the parent, with pendant legs, just dropping into the nest. At the upper end of the inlet another nest, 60

feet up at the top of a limbless dead pine, was noted and on the opposite side of the cove two more were seen in similar situations 50 feet and 35 feet up, respectively. A photograph is shown of the latter nest, and it well illustrates the construction and situation of the other two.

Crossing a narrow neck of land I came to a second cove and although I went but a few hundred feet I came to another nest 50 feet up. This, like all others, was in a dead pine and similar in situation to the second nest found. If the balance of the timbered coves on the lower end of Eagle Lake harbor



Fig. 25. THE FIFTH OSPREY'S NEST FOUND. IT WAS BUT 35 FEET ABOVE THE WATER OF EAGLE LAKE

as many homes of the Osprey as do those near Spalding the number of these birds in the region must be surprisingly large, and as this, so far as I know, is the only definite inland breeding area in California, it becomes a point of particular interest and deserving of especial protection from hunters who usually regard all Raptores with disfavor. The Eagle Lake region at present is very sparsely populated and I was particularly impressed with the distinctly primeval conditions of its birdlife, the great tree colonies of Great Blue Herons

(*Ardea herodias herodias*) and Farallon Cormorants (*Phalacrocorax auritus albociliatus*); the vast ground colonies of American White Pelicans (*Pelecanus erythrorhynchos*); its settlements of California Gulls (*Larus californicus*); and most of all, and long to be remembered, the wild-crying Ospreys in the great forests of virgin timber, and their huge nests in the lofty dead pines.

San Francisco, California, December 15, 1914.

NOTES ON MURRELETS AND PETRELS

By ADRIAAN VAN ROSSEM

WITH ONE PHOTO BY L. HUEY AND TWO PHOTOS BY A. HILLER

THOUGH the primary object of this paper is the discussion of some fall specimens of Murrelets taken between San Diego, California, and Los Coronados Islands, Lower California, I deem it advisable to incorporate

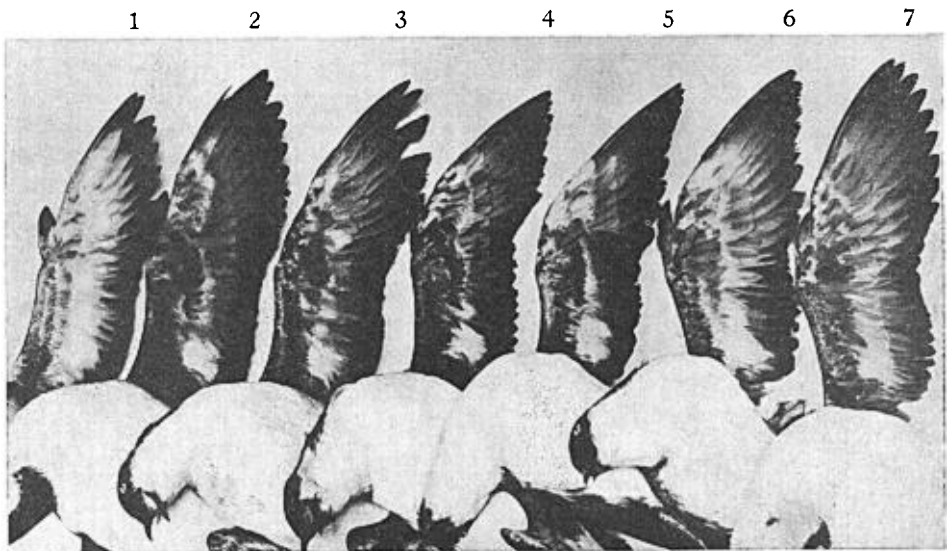


Fig. 26. SPECIMENS OF *Brachyramphus hypoleucus* (NO. 1) AND *B. craveri* (NOS. 2-7), SHOWING COLOR OF WING-LININGS

also some notes on the Black and Socorro Petrels which breed on the Coronados in company with the Xantus Murrelet and have also been more or less closely associated with it in much of the recent literature on the Islands.

When on August 13 of the present year Mr. Laurence Huey and the writer made a flying trip to Los Coronados with a view to collecting a series of young petrels, seven murrelets were taken in the channel about midway between San Diego and the Islands. Of these, one is unmistakably *Brachyramphus hypoleucus*, while the others, after careful attention to the distinguishing characteristics as given by Mr. William Brewster in his "Birds of the Cape Region of Lower California", I have no alternative but to label *Brachyramphus craveri*.

The accompanying illustration (fig. 26) shows very nicely the distinction