

SOME OBSERVATIONS ON BIRD BEHAVIOR

WITH TWO ILLUSTRATIONS

By E. L. SUMNER, JR.

During the summer of 1930, while engaged in a survey of animal populations on the State Duck Refuge recently established in the San Joaquin Valley near Los Baños, Merced County, California, I observed several noteworthy examples of bird behavior. Although incomplete, notes such as these may nevertheless have some value for the reason that animal life histories reveal themselves only gradually and in scattered fragments, so that a picture of the whole can soonest be formed by small but relatively numerous contributions.

Play Reaction of a Marsh Hawk (*Circus hudsonius*). July 19: An individual in the brown plumage was seen flying over the flats on the south side of the refuge, carrying a horned lark (*Otocoris alpestris actia*), and the subsequent behavior of the hawk was watched through 12-power glasses. All at once the hawk dropped the lark, whereupon the latter, still alive, flew weakly to the ground about seven feet away, its captor with outstretched talons hovering meanwhile about two and one-half feet above it but not pouncing upon it. When the lark reached the ground, the hawk lit beside it, then gave a little jump into the air and landed with spread talons upon its prey. It seemed not to bite the lark, but after examining it with many twistings and turnings of the head rose about three feet into the air with it, and then dropped it again, the lark still fluttering, and pounced upon it just as before. This the marsh hawk did seven or eight times, and I marveled at the clumsiness of the bird until I realized what was going on—it was playing.

At length the lark fluttered into a tangle of shrubby weeds, which circumstance seemed to furnish even more interest for the hawk. It would prance about in the weeds, taking great high steps, and now and again bend down to peer intently in at the lark. I do not think the hawk at any time really lost its prey. This continued for about ten minutes from the time when I had started to watch, after which the bird settled in a little depression with its victim and was then out of sight.

Five minutes later I walked over toward the spot. At 100 feet the hawk became visible, standing in a flat, open place, feeding. It saw me, rose empty footed, and made straight past me, circled around me at a distance of about *thirty feet*, and then made off in the same direction from which it had started, circling and flapping in leisurely fashion. The lark was all eaten, except for some wing and tail feathers, the gizzard, a piece of liver, and a fragment of intestine.

There were four or five ground squirrels (*Otospermophilus grammurus beecheyi*) sitting by their burrows, one of them only 50 feet from the feeding hawk, and yet none of them at any time showed concern over its movements.

The interpretation of the reactions of the marsh hawk as play seems justified in the light of previous observations on young hawks and owls which I have raised in the laboratory and which regularly exhibited just this sort of behavior in the presence of either real or mock prey.

Escape Reactions of a Young Black-necked Stilt (*Himantopus mexicanus*) in Water. July 31: North end of Ruth Lake, on the Los Baños Duck Refuge. Two youngsters about one-third grown (fully fledged) were observed on a muddy shore. One of them was caught, but the other escaped temporarily by wading out into deep water and then swimming. It moved rapidly and easily on the water, bobbing its head energetically. When I approached within three feet, it dived from the surface,

remaining under for one or two seconds, and came up about $3\frac{1}{2}$ feet away. In swimming under water, it flapped its wings strongly, both together, as well as kicking its legs, although making little speed. It eluded me about four times in this manner before being captured. At no time, however, did it descend more than six or eight inches below the surface.

A. C. Bent (*Life Histories, Limicolae, I*, 1927, p. 52) mentions that adult stilts can swim, and even dive if necessary, although awkwardly and only in cases of dire necessity, but he makes no statement as to wing action or the occurrence of this escape reaction in birds too young to fly.

Some Reactions to Intrusion of a Nesting Texas Night Hawk (*Chordeiles acutipennis texensis*). July 25: Alkali flat sparsely covered with alkali blite (*Suaeda moquini*). Female flushed from two young at twenty feet and flopped about on

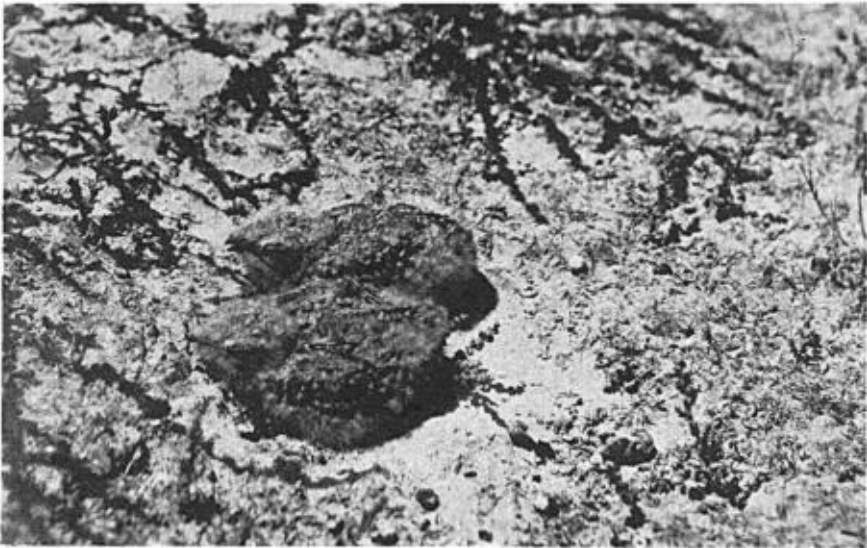


Fig. 18. "NEST" SITE AND YOUNG OF TEXAS NIGHTHAWK, IN ALKALI PLAINS TYPE OF COUNTRY, LOS BAÑOS DUCK REFUGE, MERCED COUNTY, CALIFORNIA. YOUNG ARE PARTIALLY SHADED BY BUSH OF "ALKALI BLITE." PHOTOGRAPHED JULY 25, 1930.

the ground with outstretched wings, feigning injury. "Nest" is a slight depression located at the base of a tough straggling *Suaeda* plant (fig. 18), so that the youngsters are partially shaded; the ground is smooth, unbroken, and devoid of feathers, with a few feces in a circle about the young.

July 26, 10:30 a. m.: Youngsters have been moved and are under another *Suaeda* plant fifteen feet away; the two are together, as before, and neither seemingly capable of moving by its own exertions. It looks as if the parent must have moved them. I placed the camera four feet from the young and went away for one and one-half hours. The female had not returned when I came back, although the sun was hot on the young.

Two hours later: The young had been moved again, about ten feet to another *Suaeda* plant. The adult, after fluttering awhile on the ground, flew to a fence 100 feet distant and perched *crosswise* on a strand of barbed wire. Here she stayed

for more than fifteen minutes, although totally unprotected from the wind, which was blowing so hard that she bobbed up and down and her feathers were much ruffled. Finally she flew back toward the nest and settled on the ground out of sight of me. One hour later she was still not on the nest, although the young had been forced to crawl into the middle of their shelter to avoid the sun.

In order to prevent the parent from again moving the young, I tied them



Fig. 19. ADULT TEXAS NIGHTHAWK AND YOUNG AFTER SECOND SHIFT OF HOME SITE CAUSED BY DISTURBANCE. THE HEAD OF THE SECOND YOUNGSTER IS HIDDEN BENEATH THE BROODING ADULT. PHOTOGRAPHED JULY 27, 1930.

with threads to the *Suaeda* and left the camera in place over night. By this means the old bird was at last persuaded to accept its presence, and on the following morning was in position at the nest for a picture (fig. 19).

An accident, leading to exposure of the young to the direct rays of a noon sun, with fatal results, brought my observations to a close on the following day.

Museum of Vertebrate Zoology, Berkeley, California, January 29, 1931.