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NESTING RECORDS OF THE DUSKY POOR-WILL

(WITH FIVE PHOTOS)

By JOSEPH DIXON

(Contribution from the Museum of Vertebrate Zoology of the University of California)

F ROM THE collector's standpoint the most striking thing about the Dusky Poor-will is the scarcity of its eggs in spite of the commonness of the birds. It is easier to find half a dozen nests of the Golden Eagle than to locate one nest of the Dusky Poor-will. It has been the experience of several bird students who have lived as long as twenty years in the same locality to fail to find a single nest even though the birds had been encountered all through the breeding season, and although diligent search has been made year after year. The writer is to be included among those who "also ran." The difficulty in locating a nest except through mere chance, by stumbling upon the brooding bird, is the apparent reason why eggs have so rarely been found.

All told there are published records of some twelve sets of eggs taken, and there are probably about as many more sets which have been taken but not recorded. It is the purpose of this paper to place on record some unpublished data and to bring together scattered facts which relate to the nesting of this bird.

The Dusky Poor-will (*Phalaenoptilus nuttalli californicus*) occurs regularly in the Upper Sonoran zone of California, west of the Sierran divide, from about latitude 40° south to the Mexican boundary. The steep southern slopes and ridges of the lower foothills (see fig. 24) constitute the local habitat of the bird. The form of the poor-will may be often dimly seen huddled in the middle of some dusty road or cow-path in the dusk of evening. From such a lowly but strategic position in the dust, below the sky line, a poor-will makes short, sudden forays up into the air after nightflying insects. These are captured on the wing by the aid of an unusually wide-gaping mouth, which is provided with a fringe of bristles on either side. This extension of bristles makes the escape of an insect doubly difficult.

The flight of the poor-will is noiseless and moth-like. After securing its prey the bird frequently returns to its former resting place in the dust. In dim light, the white throat patch and hesitating flight below the skyline are both good field identification marks.

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The call and alarm notes of the Dusky Poor-will have been described by R. H. Lawrence (in Bendire, 1895, p. 158) as follows: "According to my hearing, the words 'Pearl-rab-it' give a fair idea of its call in letters. . . When startled it gave quickly, two or three times in succession, a low soft note, like 'pweek, pweek, pweek,' which could not be heard a few yards away." In addition to this alarm note, which to the present writer sounds more like puck! puck! puck! the poor-will has a habit of hissing like a snake when wounded or when hard pressed. In one instance in the author's experience the hissing was accompanied by the fluffing up of the feathers all over the body and by the opening of the cavernous mouth, all these actions tending to produce quite vividly the effect of a rattlesnake coiling ready to strike. Since rattlesnakes are partial to the same type of country that the poor-wills inhabit, the bird's bluff, viewed from the human standpoint, is quite effective. The writer has never heard this bird utter any note which sounded like "poor-will" except when heard from a distance. It has always, to his ear, sounded like "Pearlral-ly."

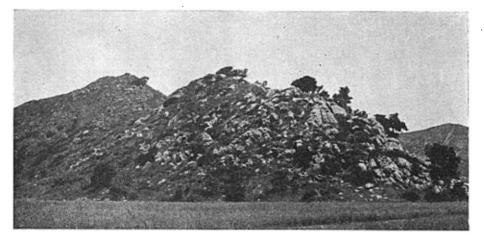


Fig. 24. THE ROCKY SOUTHERN SLOPES OF THE FOOTHILLS; THE LOCAL HABITAT OF THE DUSKY POOR-WILL.

The foraging grounds of a pair of nesting poor-wills may be 200 or more yards from their nest, so that the appearance of a bird or birds at a given point night after night affords slight clue to the exact locality of the nest.

There is good evidence that poor-wills return to the same locality to nest year after year. In 1900, and for several years thereafter, the author and his brother, James B. Dixon, found a pair of the birds in late March and early April, on a little sumac-covered flat, less than an acre in extent, near an eagle's eyrie. Although the birds were flushed repeatedly from dusty nest-like depressions and gave many other indications of nesting, we never succeeded in locating any eggs, probably because we did not continue our search until late enough in the season. Dr. J. Grinnell tells me that Mr. Edward Simmons, formerly a member of the Cooper Club, found a certain pair near Altadena nesting in the same locality year after year.

The nesting season extends over a period of at least three months, as will

TABLE SHOWING EXTENT OF NESTING SEASON OF THE DUSKY POOR-WILL IN CALIFORNIA

Observer	Reference	Locality (approximate)	Date	Evidence	Incubation
A. M. Ingersoll	Willett, 1912, p. 57; letter, June 5, 1922	"San Diego" [=].ake- side]	March 22, 1895	2 eggs	advanced
A. van Rossem	van Rossem and Bowles, 1920, p. 61	Saugus	April 18, 1919	2 eggs	slight
E. Simmons	Grinnell, 1898, p. 26	Pasadena	April 21, 1895	2 eggs	fresh
R. H. Lawrence	Bendire, 1895, p. 158	Monrovia	May 5, 1393	2 eggs	fresh
C. Schnack	MS	Escondido	May 18, 1922	2 eggs	fresh
C. L. Camp	MS	Pleasant Valley, Mariposa Co.	May 21, 1915	♀ collected contained eggs	·
A. M. Ingersoll	Belding, 1890, p. 75; Skirm, 1884, p. 149; McGregor, 1901, p. 9	Santa Cruz	May 25, 1883	2 eggs	
M. S. Ray	Ray, 1905, p. 364	Folsom	June 8, 1903	2 young nearly full-fledged	••••
E. Simmons	Grinnell, 1898, p. 26	Pasadena	June 14 , 1893	2 eggs	advanced
J. B. Dixon	MS	Escendido	June 19, 1921	2 eggs	slight
B. F. Dixon	MS	Escond ido	June 20, 1922	2 eggs	fresh
F. M. Palmer	Palmer, 1900, p. 130	Eagle Rock Valley	June 24, 1900	2 eggs	slight
Antonin Jay	Willett, 1912, p. 57	Monrovia	June 29, 1904	2 eggs	commenced
A. L. Parkhurst	Parkhurst, 1883, p. 79	Stanislaus Co.	July 13, 1883	2 eggs	
C. Littlejohn	letter, June 7, 1922	San Carlos	July 15, 1885	2 eggs	fresh
W. P. Taylor	MS	Covelo	July 19, 1913	1 half-grown young collected	
Joseph Mailliard	Mailliard, 1909, p. 47	San Geronimo	July 22, 1908	2 eggs	one-third
A. S. Bunnell	Stone, 1904, p. 581	Mt. Sanhedrin	July 23, 1897 (?)	2 eggs	
Donald D. McLean	MS	Dudley, Mariposa Co.	August 9, 1920	2 half-grown young collected	

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be seen from the accompanying table. Normally, but one brood is reared in a season.

'Nests' of the Dusky Poor-will are usually located between clumps of yucca plants or clumps of sage and sumac bushes growing on the hot southern exposures of rocky hillsides. Parkhurst (1883, p. 79) reports finding two

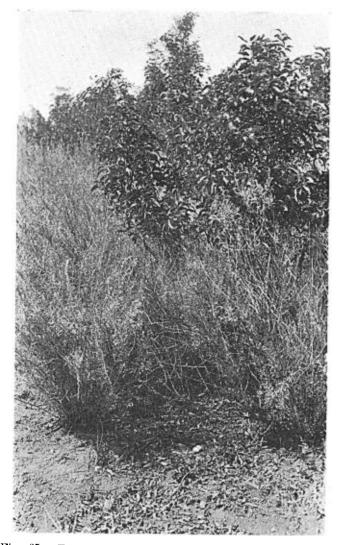


Fig. 25. The EGGS of the DUSKY POOR-WILL ARE LAID ON THE BARE GROUND, USUALLY IN A LITTLE OPENING SURROUNDED BY DENSE BRUSH.

eggs of the Dusky Poor-will in Stanislaus County "on a bare hard alkali spot in a grain field." This, however, is exceptional. In the majority of cases the nest is located at the edge of dense brush bordering upon a small open space (see fig. 25). The brooding bird is not infrequently unprotected from the

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direct rays of the noonday sun, but at other times is protected by shadows cast by the surrounding brush.

The majority of poor-will nests that have been found, have been discovered by accident. The nest found by Schnack was located through a dog's frightening the bird away from the nest. The bird fluttered off uttering an alarm note, *puck! puck!* In its haste to escape the dog, the bird flew almost into the man's arms. The nest found by J. B. Dixon was discovered because the bird had happened to nest within three feet of a used trail. Van Rossem flushed his bird from its nest by nearly stepping upon it, when he was in hot pursuit of a rare butterfly. Mailliard, likewise, discovered his set through accidental flushing of the bird from its nest.

When flushed at midday the bird usually returns to its nest within ten minutes. Some birds prove so shy that it is difficult to photograph them on the nest.



Fig. 26. The two creamy tinted eggs lay in a slight cavity which the Poorwill had scratched out in the soft earth under a sumac bush. Photo by J. B. Dixon.

No attempt is made by poor-wills at building a nest, that is, in the ordinary sense of the word. The set of eggs found by J. B. Dixon was lying on the bare earth, in a little depression which the bird itself had evidently made by wallowing in the soft earth. This depression was four inches long, three inches wide, and one inch deep, and was located at the edge of an opening under a sumac bush (see fig. 26). The nest found by Schnack was likewise merely a depression made in the soft earth after the original covering of dead sumac leaves had been cleared away (see fig. 28). The nest cavity in this instance was four and a half inches long, three inches wide, and an inch deep.

Roosting beds similar to the nest cavities just described are commonly

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scratched out by the birds early in the breeding season. Palmer (1900, p. 130) states: "The eggs were lying in a shallow depression in the earth about the

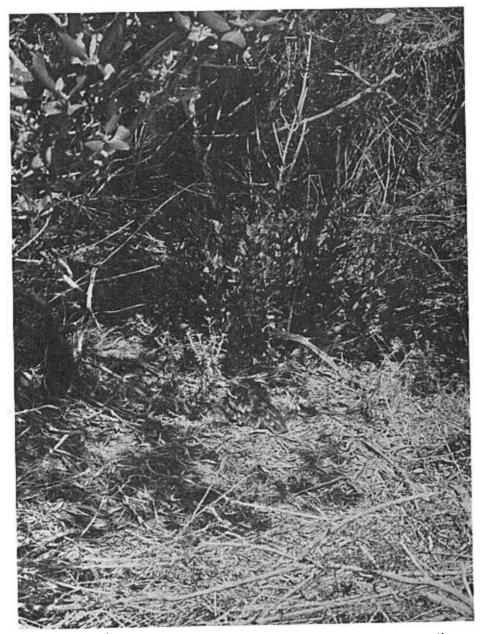


Fig. 27. A DUSKY POOR-WILL ON NEST. NOTE THE BLENDING OF THE BIRD (lower center) WITH THE PATCHES OF SUNLIGHT AND SHADOW.

Photo by J. B. Dixon.

size of a man's hand and no attempt whatever had been made to keep the eggs from direct contact with mother earth." Mailliard (1909, p. 47) says: "The

eggs were placed upon the bare fragments of rock." Ray (1905, p. 363) states: "The nearly full-fledged young were on the bare ground." Van Rossem and Bowles (1920, p. 61) give the following: "Eggs lying on bare ground among pebbles," and Stone (1904, p. 581) says: "Two eggs found on a bare rock."

Both birds assist in incubation. This fact was definitely proved by the capture of the male bird as it flew from the nest found by C. Schnack. This bird was seen to fly directly from the eggs and was secured before it was out of sight. The specimen, now number 43238 in the bird collection of the Museum of Vertebrate Zoology, was prepared by the present writer. The bird was unquestionably a male in full breeding condition. Positive identification as to the sex of the incubating bird appears to be lacking in many cases, the observer presuming the bird on the nest to be the female. It may be possible that the above case is not so exceptional



Fig. 28. THE NEST AFTER THE MALE HAD BEEN FLUSHED. THE EGGS ARE ELLIPTICAL IN FORM, AND ARE PURE WHITE.

as published records indicate. It may not be amiss to point out that in the adult male Dusky Poor-will the white terminal band of the outer tail feathers is *white* like the throat patch. In the female this band is narrower and brownish like the spotting on the primaries. In looking over a large series of specimens, the author finds that in the adult males the white tail band is one-half inch or more wide, while in females this band is less than one-half inch in width.

Eggs of the Dusky Poor-will vary considerably in color, in shell texture, and in markings. In form and size the eggs appear to be constant. In outline, the eggs have the form of an ellipse (see fig. 28). Occasionally the smaller end of the egg will be slightly more pointed than the larger end, but usually the eggs are equally rounded at the two ends. The average measurements of eight eggs (four measured by the writer and four as recorded in the literature) are $1.04 \times .77$ inches (26.4×19.7 millimeters).

Compared with eggs of the Mourning Dove, with which they are sometimes confused, the eggs of the Dusky Poor-will are somewhat smaller, averaging $1.04 \times .77$ inches as against the dove's $1.15 \times .80$. Nearly all the eggs of the Dusky Poor-will have either a creamy tint or else show fine purplish markings. The shell is of rougher grain and shows less polish than do eggs of the dove. The poor-will lays its eggs directly on the ground. Mourning Doves, too, sometimes do this, but usually they make some attempt at nest building.

The eggs collected with the male parent in 1922, now in the collection of J. B. and J. S. Dixon, are pure white, with a smooth glossy surface of moderate polish. They lack the creamy tint usually found in eggs of this poor-will and resemble in many ways small eggs of the Mourning Dove. Except for size, this set corresponds well with the earlier descriptions of the eggs, as found in Davie (1889, p. 226) and Reed (1904, p. 201). Of this set, egg 1 measured $1.05 \times .77$ inches and when fresh and unblown weighed 5.5 grams. Egg 2, also fresh, measured $1.03 \times .76$ inches and weighed 5.9 grams. At first glance it seemed that the longer egg should weigh more than the other, but repeated weighings showed that the egg which was more nearly spherical in shape weighed the most. The two eggs found by J. B. Dixon in 1921 have a decided creamy shell tint which is still unfaded one year after being blown. The texture of the shell of this set is slightly rough and the surface is not highly polished. No one would confuse this set with eggs of the Mourning Dove. The set of eggs taken by Lawrence in 1893 is described by Bendire (1895, p. 159) as having a "pale creamy tint, with a faint pinkish tinge" and as measuring $1.04 \times .76$ and $.99 \times .76$ inches. Parkhurst (1883, p. 79) described eggs he collected as follows. "They were glossy white with small gray and bluish purple markings." Palmer (1900, p. 130) states: Eggs "delicately-faint, 'creamywhite.' slightly intensified at one end, also showing at this end very faint shell markings of small brown spots. The eggs measure about $1.05 \times .80$ inches in size and are elliptical in form."

Van Rossem and Bowles (1920, p. 61) describe a set as follows: "Before blowing, the ground color was a strong salmon pink; but this, after blowing, turned to a clear, glossy, pinkish white. . . Around the larger ends was a rather dense wreath of lavender and dusky spots and dots. . . In course of time many of the smaller dots have faded out, leaving only a comparatively few spots and dots to show where the heavy wreath was once located." It is evident from the foregoing accounts that eggs of the Dusky Poor-will may be (1) plain white, (2) creamy white, or (3) either of these with purplish or brown shell markings in the form of dots which may even form a ring about the larger end of the egg. Many other members of the 'goat-sucker' family lay well-marked eggs; so we need not be surprised to find this family character cropping out in the Dusky Poor-will.

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A LITTLE KNOWN ORNITHOLOGICAL JOURNAL AND ITS EDITOR, ADOLPHE BOUCARD, 1839-1904

By CHARLES A. KOFOID

THE LIFE and work of Adolphe Boucard, French ornithologist, naturalist, and collector, is of peculiar interest to American ornithologists, and to Californians in particular, because it is due to his activity that many private collections and museums of the Old World and the New were supplied with excellently prepared skins of those jewels of the tropical forests of the western world, the humming birds.

Boucard's visit to California occurred during the height of the gold excitement, for he lived in San Francisco from August 15, 1851, to August 18, 1852. Part of the time he lived on a little bay (Mission Bay?) about a mile and a half from the city; later he moved to the top of Stockton Street on the edge of Chinatown where there were then only three houses. His activities as a naturalist increased with this change of residence. In his Travels (p. 49) he says: