

## OCCURRENCES OF POOR-WILLS IN THE SIERRAN FOOTHILLS IN WINTER

By A. E. CULBERTSON

On February 6, 1946, an outing and collecting trip took a small group of us to the foothills northeast of Fresno, Fresno County, California. A stop was made at a place about thirty miles (air-line) from town, at an elevation of 900 feet in a Blue Oak-Digger Pine association. While we searched for any organism that might be of interest, wood rats' nests were dismantled, stones overturned, and rotted logs examined.

An investigation of the rotted wood left after pushing aside a small decayed limb of a Digger Pine brought forth a startling hiss, which proved to come from the wide open gape of a Poor-will (*Phalaenoptilus nuttallii*). The bird was under, and mixed up with, the broken and rotted wood, in a place considerably dampened by recent rain.

When the bird was picked up, it made no effort to fly away. The only reaction was the opening of the mouth and the hissing. The feathers were ruffled and damp, and there was no feeling of warmth when the bird was held in the hand. There was no thermometer available to determine the body temperature, but it seemed that the bird was cold all the way through. After being held for a time and then placed in a box in the car, its activity increased and it would readily have escaped if it had had the chance.

The bird was kept captive for three days, during which time unsuccessful attempts were made to feed it termites by placing them well back in its throat. It was later released in Fresno, at which time it flew away in a perfectly normal fashion.

The weather for some time previous to the discovery of the Poor-will had been rather cold. It would seem improbable that there could have been any insects flying at the normal feeding time for these birds. Through the courtesy of Mr. J. R. Bentley at the San Joaquin Experimental Range, Madera County, records were obtained of the maximum and minimum temperatures of the period from January 10 to February 6. There were only three nights in this period when the temperature did not drop below freezing. The experimental range is at an elevation of 1300 feet. The temperatures at 900 feet would be about the same. The lowest temperatures occurred in the week previous to the discovery of the Poor-will; the temperature on one night was 22 degrees. The day the bird was discovered a maximum temperature of 56 degrees was recorded.

The droppings in the box in which the bird was kept were examined to determine, if possible, what it had eaten. Positive identification was made of the heads of two beetle larvae and the scales of moths. Numerous hard parts of beetles made up most of the material. From such evidence it would appear that the bird had eaten recently and that it had fed to some extent, at least, on the ground.

There was no doubt that this torpid bird was in a low state of metabolism and not just a nearly dead bird. It is difficult to understand how a night-feeding bird in the cold and inactive state in which this one was found could revive sufficiently to feed in the cold of the evening. How long can an animal, with the normal high rate of metabolism of a bird, tide over unfavorable conditions in a state of torpor? One would certainly hesitate to use the term hibernate, even in the limited sense as applied to bears and chipmunks. But here seems to be a case that might approach that condition.

There are few records of the Poor-will in the Sierran foothills in winter. In one record, however, the word "torpid" is used to describe the condition of the bird. In "Land Birds of the Pacific District," Belding (1890:76) gives records of birds of this species in January (January 22, 1879), at North American Hotel, 30 miles east of

Stockton, San Joaquin County. He refers to a specimen picked up in a "torpid" condition by some workmen who found it in dense chaparral. Specimens were also found in February and March, one being collected on February 19, 1886, at Copperopolis, and one on February 22, 1889.

In discussing the finding of a Poor-will under the conditions described above with Mr. John G. Tyler of Fresno, California, he expressed his belief that wintering birds of this species were not uncommon in our foothill districts. In a communication from him in this regard, after checking his notes, he gives the following records and his permission to use them.

"March 5, 1915. While coming down a rocky wash near the road opposite Piedra today, I flushed and collected a Dusky Poor-will from where it settled on a rock. It was entirely silent. The bird was a very dark colored male. (No. 77. Coll. J.G.T.)

"January 24, 1921. This species is probably resident throughout the winter as far north as Fresno County. Today I flushed a single individual from under the east side of a large boulder, just in the edge of the hills east of Orosi, Tulare County. The bird got up with the usual 'purring' note from beneath my feet and appeared to be an immature of the previous season as there was much of the light reddish coloration, unlike the dusky hue of the adult male. A slight hollow in the scanty earth covering a small shelf of the rock, only a few inches above the ground, gave indication that the bird had made this place a more or less regular roost."

Mr. Tyler ventures to suggest that the evidence of feeding "gives a clue as to how these sometimes torpid birds are able to survive during the intervals between sunny periods in the winter months. They seem to get up above the valley fogs and evidently get enough food from the ground to keep going, or at least keep alive, during unfavorable periods."

It is well to note that none of the winter records of the occurrence of the Poor-will in the Sierran foothills are of birds in flight. They were flushed in the daytime or found in an inactive state, whereas during the summer and autumn months they are frequently seen on the wing at night. This lack of activity may well be the reason for the few records, or in turn, the lack of winter records may be further evidence of the inactive state of these birds in this region in the winter.

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