

markings, was hurriedly adding material to the nest. I watched for 75 min as the male worked—at first hardly leaving the nest to get material, but later moving more than a meter away. He put everything into his efforts, using wings to balance himself, bracing with his feet against live *Spartina* as he tugged at brown stems, almost flipping over backwards as he rushed material to the nest or to the incubating female. The female moved only to tuck bits under her and to rearrange material around the nest. During a 3-min period, the male made 17 trips to the nest. This rate was maintained for over an hour, and then, when it started to rain again, the male's pace seemed to quicken but could not be timed because of reduced visibility.

During a lull in the rain I examined the nest. The male retreated 30 m, but the female remained on the nest until I was within 0.6 m, at which point she stepped to the rim of the nest to reveal her nine eggs. The water in the marsh was rising and near the nest rim so I retreated.

On 21 April I found the female still incubating nine eggs and equally tenacious. There had been little rain since 13 April and the water level in the marsh had dropped to 41 cm below the nest rim. On the 21st the nest measured 19.5 cm deep (from rim to bottom) and 31 cm across. The diameter of the enlarged nest (31 cm) exceeded the largest Clapper Rail nest (30.5 cm) \bar{x} = 23.6 cm, N = 63) reported by Koziacky and Schmidt (Auk 66:355–364, 1949), suggesting that enlargement may have been outward as well as upward.

Several authors (e.g., Bent, U.S. Natl. Mus. Bull. 135, 1926; Adams and Quay, J. Wildl. Manage. 22:149–156, 1958) recognized high tides and floods as threats to Clapper Rails. None mentions a response to rising water as observed in this case. Zucca (Wassman J. Biol. 12:135–153, 1949) observed 12 nests during 3 days of high tides; several nests were lost, some damaged, all were soaked, but no mention was made of nest enlargement. Meanley (N. Am. Fauna No. 69:60, 1969) observed a King Rail (*Rallus elegans*) build up its cattail nest above rising water in a roadside ditch and another building its nest up when the rice field in which it was located was flooded. Both of these nests were built up by single incubating birds working from the nest.

Lack of previous observations of this type of behavior in Clapper Rails is probably due to the wave action which usually accompanies high tides and which would thwart nest reinforcement activity. The extreme, but gentle rise in water level in this instance put little disruptive stress on the nest and allowed the bird to work without fighting waves or a strong current. My observation that the gathering of nest material and most of the nest reinforcement activity was done by the male also parallels Meanley's (1969:60) observations of nest construction by male King Rails.—JEROME A. JACKSON, *Dept. Biological Sciences, Mississippi State Univ., Mississippi State, Mississippi 39762. Accepted 13 July 1982.*

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Chick movements in Common Poorwills.—Common Poorwill (*Phalaenoptilus nuttallii*) chicks are reported to move frequently during the nestling stage. Evans (*Wilson Bull.* 79:453, 1967) re-examined a poorwill nest in Nevada six times and noted five changes of site involving moves from 2.1–10.6 m. In Oregon, Swisher (*N. Am. Bird Bander* 3:152–155, 1978) noted that a brood moved 1 m, then returned to the original nest-site and then apparently left the nest area. Orr (*Auk* 65:46–54, 1948) found that 1–2 day-old undisturbed chicks moved 0.15 m to cover.

In 1981 we recorded moves of a poorwill brood in the Rosebud Buttes, 12 km SE Rosebud, Rosebud Co., Montana. The area was dominated by ponderosa pine (*Pinus ponderosa*) and Rocky Mountain juniper (*Juniperus scopulorum*).

On 6 and 7 June we flushed an adult from two eggs located on the ground on pine needles between a scrub juniper and a yucca (*Yucca glauca*). On 14 June an adult was flushed from two downy chicks at the same site. An adult was flushed on 24 June from the chicks, which were 2.5 m east of the nest-site and in the shade of a large juniper. Distribution of droppings indicated that the chicks had remained in an area of 1.5 m² since hatching. The maximum distance moved was 3.1 m. During this visit we banded the chicks—the first handling of eggs or chicks. On 26 June we flushed an adult from the chicks next to a large juniper 14.5 m west of the 24 June location. The chicks were weighed and measured. We could not relocate them on 5 July.

There appear to be two types of chick movements. Short movements may be a thermo-regulatory response, e.g., avoiding wet areas (Swisher 1978) or too much sunlight, as reported for Common Nighthawk (*Chordeiles minor*) chicks (Dexter, *Bird-Banding* 23:109–114, 1952; 27:9–16, 1956). Movement to nearby cover may also constitute concealment from aerial predators. Long movements may be an anti-predator adaptation (Dyer, *Wilson Bull.* 89:476–477, 1977) triggered by disturbance. Long movements reported by Evans (1967) and Swisher (1978) both followed handling of chicks. Consistent with this, the chicks we observed moved to denser cover and remained within 3.1 m of the nest-site for 10+ days posthatching, but made two long movements following handling.

We suspect that movements of undisturbed poorwill chicks would average less than movements of disturbed chicks. The element of human intervention should be minimized in future observations of chick movements.—JON E. SWENSON, *Montana Dept. Fish, Wildlife and Parks, 1001 Ridgeway Dr., Livingston, Montana 59047* AND PAUL HENDRICKS, *Dept. Zoology, Univ. Montana, Missoula, Montana 59812. Accepted 25 Aug. 1982.*

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Adoption of introduced young and neglect of own by nesting Black Vultures.—

On 7 June 1975, I learned of the planned demolition of an old house used by a nesting pair of Black Vultures (*Coragyps atratus*). The nest contained one young bird, 35–40 days old. At the same time a pair of Black Vultures were nesting in an old building on my farm, having two young, 30–35 days old. With the hope that the parent birds at this nest would adopt and feed the young bird from the other nest along with their own, I placed the bird from the other nest with the two birds in the nest on my farm. In addition to noting the slightly larger size, I clipped a toenail to facilitate identification of the introduced bird. Through a peep hole I watched the Black Vultures feeding the nestlings and found that the introduced bird was accepted by the adults and was being fed by them. Thus, I anticipated no problem with the introduction and did not visit the nest again for 3 days. Then I found the smaller of the two original birds much emaciated and nearly dead, apparently from starvation. This bird died and I removed it from the nest the following day. Neither the other young nor the adults had made any attempt to eat the dead chick. The two remaining young were well fed and healthy.

I earlier reported (Stewart, *Auk* 91:595–600, 1974) finding Black Vultures holding their eggs on the inner and central toes of their feet during incubation, setting at two the maximum number of eggs which can be incubated. The observation reported here of feeding being limited to two birds indicates that the limitation of two is continued beyond incubation. It seems probable that this limiting to two the number of young fed is an outgrowth from the method used by these birds for incubating their eggs. Perhaps from being able to incubate only two eggs and thus having only two young they develop a tendency to feed only two young.