

FROM FIELD AND STUDY

Mountain Chickadees Feeding Young Williamson Sapsuckers.—On June 28, 1946, while collecting in the Sweetwater Mountains, Mono County, California, an unusual life-history observation was made. In Sweetwater Canyon at 8000 feet, I heard the constant buzzing of young birds in the distance. As I approached a large white-barked pine (*Pinus albicaulis*) two Mountain Chickadees (*Parus gambeli*) left the vicinity of a hole in the trunk. As I stood marveling at the fact that young chickadees could be heard at approximately 100 yards, a female Williamson Sapsucker (*Sphyrapicus thyroideus*) came to the tree and proceeded to feed young birds through an opening 90° around the trunk and slightly below the hole I had been watching. It thus appeared that there were two families in close proximity. But then the male sapsucker arrived and fed young, not through the hole the female had just left but through the one the chickadees had been near. Observations were becoming more confusing by the minute. Watching the tree for the next half hour, I noted that every three to five minutes either two chickadees, or a male or a female sapsucker arrived to feed young sapsuckers. The adults and young used both openings indiscriminately. The chickadees came simultaneously, but the sapsuckers alternated in time of arrival. The chickadees' instinct to feed was being sorely tried by the violent reactions of the adopted brood. When one inserted its head in an opening, a charge by the inmates was too much to face, and the chickadee would fly to a branch nearby and then return immediately. This was usually repeated two or three times before the food was delivered.

When taken, the chickadees were carrying insect larvae one-half inch long, and the male sapsucker was providing the usual diet of ants.

Upon returning the following day to chop out the nest, I took the female sapsucker, and it, too, was carrying ants. At the first blow of the ax, two young sapsuckers popped out and flew down canyon. One was a male but the sex of the other could not be determined. The three remaining birds proved to be two females and one male.

Exposure of the interior showed how this family mixup could have occurred. An outer shell of the tree one and one-half inches thick was alive, but the center was rotten and the thin partition between the two cavities had broken away. Cavity 1 (see fig. 16) was bare, since any debris deposited here would be pushed down by the scrambling young. At the bottom of cavity 2 there was one sapsucker egg. This egg, stained brown, had a small hole in one side and was filled with dead ants. A mass of shredded bark and dead ants filled the cavity two-thirds full. Chickadees usually obtain fur for an inner lining, but this was not present. From the evidence, one might assume that the sapsuckers nested first in cavity 2, laying six eggs. Some time after five of the eggs hatched, the chickadees probably began to deposit an outer lining of shredded bark in cavity 1. The increasing activity of the young sapsuckers may have caused the partition to fall out, and the unusual adoption resulted.—WARD C. RUSSELL, *Museum of Vertebrate Zoology, Berkeley, California, January 16, 1947.*

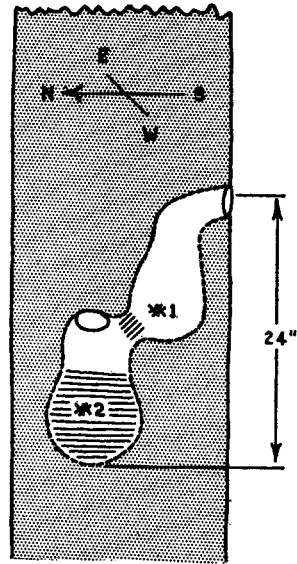


Fig. 16. Diagram of nesting cavities occupied by young sapsuckers.

Red-tailed Hawk Feeding on Coot.—While patrolling near El Padre Island, lower Millerton Lake, Fresno County, California, at 12 noon on November 20, 1946, my attention was attracted by a medium-sized, long-tailed hawk (possibly a female Cooper Hawk, *Accipiter cooperii*) which was diving from elevations of approximately 100 feet at a larger bird which was on the ground. Four such dives were seen before the bird retreated at my approach. Each time the hawk dived, the grounded bird would flutter as though attempting to fly.

As I drew close to shore, I saw that the bird on the ground was a large Red-tailed Hawk (*Buteo jamaicensis*). Its seeming reluctance to fly caused me to believe that it was injured, but as my boat touched shore, the hawk took off, carrying a large object approximately 20 feet before dropping it and flying to a stump some 200 feet distant, where it landed. It remained on this stump some 30 seconds before flying away.

Upon investigation I found that the object dropped by the Red-tailed Hawk was a full-grown Coot (*Fulica americana*). The entire head and neck were missing, and the upper breast had been torn open. The fresh condition of the Coot suggested that it had just been killed. A flock of more than 100 Coots had been swimming nearby and had flown up from the water as I approached shore. No evidence was obtained which would show precisely the relationship of one hawk to the other, or of either hawk to the Coot.—DOUGLASS H. HUBBARD, *National Park Service, Friant, California, November 27, 1946.*

Food Items from Red-tailed Hawk and Marsh Hawk Nests.—Pellets taken on July 12, 1939, from the nest of a Marsh Hawk in a *Salicornia* marsh about five miles southwest of Watsonville, Santa Cruz County, California, contained the following: Insects: 8 Jerusalem crickets (*Stenopelmatus* sp.). Birds: 1 Ruddy Duck (*Erismatura jamaicensis*), 1 Virginia Rail (*Rallus limicola*); 1 Pipit (*Anthus spinoletta*); 1 Brewer Blackbird (*Euphagus cyanocephalus*); 1 House Finch (*Carpodacus mexicanus*). Mammals: 3 meadow mice (*Microtus californicus*); 3 harvest mice (*Reithrodontomys longicaudus*).

From under a Red-tailed Hawk's nest in a eucalyptus about 5 miles northwest of Watsonville, there were taken on the same date pellets representing: Reptiles: 1 alligator lizard (*Gerrhonotus coeruleus*); 3 gopher snakes (*Pituophis catenifer*). Birds: 1 Spotted Towhee (*Pipilo maculatus*); 1 House Finch (*Carpodacus mexicanus*); 1 small bird, also probably a House Finch. Mammals: 4 California ground squirrels (*Citellus beecheyi*); 1 pocket gopher (*Thomomys bottae*); 1 meadow mouse (*Microtus californicus*); 1 brown rat (*Rattus norvegicus*); 2 rabbits (both apparently *Sylvilagus bachmani*).—R. M. BOND, *Soil Conservation Service, Portland, Oregon, November 11, 1946.*

The Cardinal of Central Baja California.—In the preparation of manuscript on the distribution of birds in Baja California it has been necessary to review the taxonomic status of races proposed since the appearance of Grinnell's "Distributional Summation" in 1928 and to revise the ranges of others for which very few data were then available. This is particularly true of the central part of the peninsula, most of which was but poorly known from an ornithological standpoint twenty years ago.

The Cardinal, *Richmondia cardinalis seftoni*, was proposed by Laurence M. Huey (Trans. San Diego Soc. Nat. Hist., 9, 1940:216) on the basis of three males taken at Santa Gertrudis Mission. Twenty specimens (twelve males and eight females) of this form have now been examined, and they amply confirm the validity of the race, although the set of characters which distinguish it from *Richmondia cardinalis ignea* of the Cape region must be revised. *Seftoni* is not intermediate in wing and tail length between *ignea* and *superba* of southern Arizona as may be seen from the averages of 24 male *ignea* (wing, 92.3; tail, 107 mm.) from the Cape region and 12 *seftoni* (wing, 92.4; tail, 103.6). The bill of *seftoni* is smaller in all dimensions than that of *ignea* or *superba*, as stated in the original description. The color of both sexes of *seftoni* is paler as compared with *ignea*, the crests of the males remarkably so, and the females are more ashy (less buffy) gray dorsally as well as paler generally. It may be remarked that *seftoni* bears close resemblance in color to *Richmondia cardinalis townsendi* of Tiburón Island, but the pallid crest of the former is a good distinguishing mark, and there are some size and proportional differences which need not be elaborated here.

The ranges of the two races of the Cardinal which occur in Baja California are as follows on the basis of information available at this time:

Richmondia cardinalis ignea (Baird); Southern portion of the peninsula of Baja California, north to the vicinity of Comondú and to the south end of Concepción Bay at about latitude 26° 30' N.

Richmondia cardinalis seftoni Huey; Central Baja California from San Lucas, latitude 27° 14' N north at least to Santa Teresa Bay at latitude 28° 22' N.

Specimens have been examined as follows: *R. c. ignea*, Cape San Lucas, 5; San José del Cabo, 17; La Paz, 8; Dolores Bay, 1; Los Frailes, 2; Agua Caliente, 5; Todos Santos, 2; Eureka, 1; Boca de San José, 1; Matancita, 1; El Médano, 1; South end of Concepción Bay, 2; Comondú, 4; [San José Island, 2; Carmen Island, 3; subsp. indet.]; total, 56. *R. c. seftoni*, San Lucas (27° 14'), 5, intermediate; San Ignacio, 6; 2 miles south of Santa Rosalia, 1; 11 miles west of Santa Rosalia, 2; 5 miles southwest of San Ignacio, 1; Santa Teresa Bay (28° 22' N), 1; Santa Gertrudis Mission, 3; total, 20.

I acknowledge gratefully the use of the collections at the Museum of Vertebrate Zoology, the San Diego Natural History Museum, and the collections of Laurence M. Huey and Max M. Peet.—A. J. VAN ROSSEM, *Dickey Collections, University of California, Los Angeles, September 30, 1946.*

Food of White-tailed Kites on the Suisun Marsh.—During May and June, 1937, Mr. J. D. Graham and I, while traveling about the Suisun Marsh, Solano County, California, noted that one