

On this particular day, a strong wind was blowing from the east and the manner in which the parent bird entered the chimney was governed by the direction of its approach. When it returned flying into the wind, it glided, not more than 10 feet above the flat roof, to the chimney and "floated" into the aperture. When the approach was with the wind, however, the speed of the bird was greater, and usually it circled once about 30 feet above the roof and then dived into the opening. In leaving, it invariably flew over that part of the chimney farthest from the nest, thus taking advantage of a greater angle in its exit (see fig. 61).

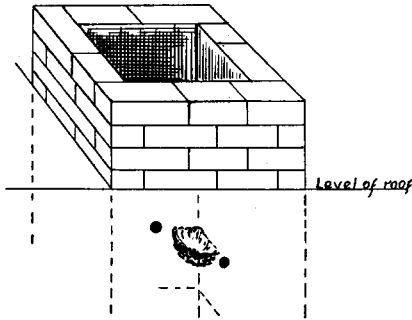


Fig. 61. Drawing indicating position of nest of Vaux Swift in chimney. Spots indicate places where parent perched when feeding young.

When I first looked into the chimney, I was greeted by the clamor of the young. Their calls consisted of series of rasping notes uttered in rapid succession. The young were perched on the edge of the nest, each with its posterior end projecting over the edge and with its head directed toward the corner of the chimney. Below the nest the chimney was streaked with excrement, a circumstance which indicated the young were not defecating in the nest. This probably explains the clean condition in which Edson (*ibid.*) found the empty nest when it was collected two days later. No evidence was obtained that the parent bird removed the fecal sacs of the young, although one can infer that it probably did when

the young were smaller and unable to perch on the edge of the nest. Each time the parent returned from a trip afield, the young became vociferous, their calls lasting until the old bird left. By listening for the calls of the young, one could mark the coming and going of the adult.

After the parent had returned from its sixth trip, I moved close to the chimney and witnessed the feeding of the young. When first observed, the old bird was clinging to the chimney beside the nest, supported partly by the stiff tail feathers. The young were facing her (?), each with its mouth wide open clamoring for food and vying with its nest mates. I was led to wonder what relation existed between lustiness of voice and the chance of being fed at that particular visit. Later, after additional observations, I learned that proximity to the parent determined to a large extent which of the young was fed. At succeeding visits, the old bird alighted first at one side of the nest and then at the other, feeding the one, or ones, closest. The food, consisting of insects, largely leaf hoppers (as determined by gullet examination of the young), was placed far back in the open mouth of each young one.

To return to the first observation: After the parent bird had fed one of the young, it caught sight of me and dropped to a lower level in the chimney where it alighted out of sight. I moved closer and placed my head directly over the opening to get a better view. As I did so, I heard the rapid beating of wings and, thinking the bird was coming out, I instinctively jerked my head to one side to avoid being hit. It did not appear, so I looked in a second time and again I heard wing beats. This time I kept my position, and after my eyes had become adjusted to the darkness, I observed its stunt several times. The bird would let go its hold on the wall, and, by rapidly beating its wings, suspend itself in the middle of the chimney and at the same time produce the br-r-r-r-ing sound. Apparently the sound was produced by the beating of the wings themselves, for I could not observe them touching the sides of the chimney. During these performances the young were quiet. I interpreted this behavior as a means employed to intimidate the intruder, much as does the hissing of the chickadee or the swooping dive of the Red-tailed Hawk.—WILLIAM B. DAVIS, *Museum of Vertebrate Zoology, Berkeley, California, June 22, 1937.*

Hybridism between Myrtle and Audubon Warblers.—Looking around for something of interest to do, the fact came to mind that in the ornithological collection of the California Academy of Sciences there is a specimen of *Dendroica*, taken by W. Otto Emerson at Hayward, California, on April 4, 1901, that is labelled Audubon Warbler but has the word "hybrid" written slantingly across the label.

It happens that in the Auk (vol. 51, 1934, p. 243) is a description by Brodkorb of a hybrid between *Dendroica striata* and *Dendroica castanea*, which are closely related species, and accompanying the description is the remark that hybrids in this genus seemed to be of rare occurrence. As the Emerson specimen is undoubtedly a hybrid, this matter seemed to be worth looking into. As a beginning the indexes of the Auk, the Condor, and Bibliography of California Ornithology were

closely scanned for anything pertaining to such cross-breeding, but with little success. The only reference found was to an article by Taylor (Univ. Calif. Publ. Zool., vol. 7, 1911, pp. 173-175) which concerns the taking in northern Humboldt County, Nevada, of a number of specimens of *Dendroica*, most of which were the Audubon Warbler. There was one among them, however, that "presents an almost perfect blending of the characters of the two species, *auduboni* and *coronata*, taken on May 20, 1909 This furnishes the first instance known to the writer of hybridization within the genus *Dendroica*." The logical conclusion reached is that there does not seem to be any good reason why two such closely related species should not hybridize if their breeding grounds overlap or if populations of the two species intermingle, especially as hybrids between other members of this family are known.

The next step was to examine with care the specimens in the Academy, of the Audubon and Myrtle warblers, the latter including particularly the Hoover Warbler (*D. c. hooveri*), the Academy collection containing over 200 specimens of the Audubon and some 400 of the Myrtle group. All of these specimens were listed and carefully examined for deviations from normal. As the Audubon Warbler occurs only, except accidentally, west of the Rockies but slight deviations from normal were likely to be found among the Myrtle Warblers of the eastern states, which proved to be the case, those found being principally a white edging, usually quite narrow, along the inner vanes of the rectrices.

Of the few instances of departure from normal among the eastern specimens in the Academy there is a fully adult April male, no. 14760, California Academy of Sciences collection, from Delavan, southeastern Wisconsin, that is typical *coronata* except for a rather faint but easily perceptible whitish patch upon the fourth rectrix on the right side and a similar but less perceptible patch on the corresponding rectrix of the left side. This seems to suggest that this individual might have a trace of *auduboni* blood in its lineage, possibly two or three generations old. Another case, no. 41089, adult male in the Swarth collection, taken May 2, 1887, near Grand Crossing, Cook County, Illinois, has a distinct white patch on each of the fourth outer pair of rectrices. This specimen was taken by a man named J. L. Hancock, as shown by the original Morcom label, and it also carries a Swarth label on which is written "Rec'd from G. F. Morcom". No comment concerning the white patches on the rectrices appears on the label or in the card index where the specimen is entered as number 409 of the Swarth collection.

Another slight departure from normal among the eastern birds is no. Ex. 6824, Mailliard collection, from the central part of New York State, taken April 4, 1896, that has the normal white spots on three outer rectrices, but, in addition, has a distinct white spot, 3.6 x 4.6 millimeters in size, upon the fourth rectrix on the left side. The corresponding rectrix on the right side is unfortunately missing. The head has the postocular and supraloral streaks slight and poorly defined; the wing and tail measurements are close to the maxima given for the species in Ridgway's Birds of North and Middle America.

Examination of our specimens from the Pacific Coast shows a very different state of affairs, as there are several unquestionable examples of hybridism between *Dendroica auduboni* and *D. coronata*. At the time of the last annual meeting of the Cooper Ornithological Club this fact was mentioned to Dr. Louis B. Bishop, who told me that there were several similar hybrids in his collection. This rather dampened my ardor as regards writing up the subject, yet it seems that it should be of interest to a good many readers of the Condor to give them descriptions of at least a few of our cross-breeds. For example no. Ex. 6840, Mailliard collection, the male adult mentioned in the first paragraph of this paper, is near *D. coronata hooveri* but has some lemon-yellow feathers among the white feathers of the chin and middle throat; the head has the supraloral and postocular streaks well developed and the three outer pairs of rectrices have the normal white spots of *coronata*, but the fourth pair show heavy white edgings on their inner vanes. The white tipping on the wing coverts is more of the *auduboni* type. Number 14738, C. A. S. collection, an adult male with no date given, labeled *D. coronata hooveri*, was taken by Beck at Berryessa, California, and evidently was sent to Ridgway for identification, by whom it was returned with the words "Yes! Typical, R.R." written on the label; yet the specimen has white on the fourth pair of rectrices besides having it on the regulation three for *coronata*. It also has only an indication of supraloral and postocular streaks on the right side of the head and none on the left side.

Number 14867, C. A. S. collection, male immature, taken at Palo Alto, California, January 21, 1899, by Theodore J. Hoover, is close to *D. c. hooveri* but has the chin and upper part of throat lemon yellow. Number Ex. 3694, Mailliard collection, is an adult female taken April 6, 1905, in Santa Clara County, California, by H. O. Jenkins, that is nearest to *D. c. hooveri* but has a narrow, elongated patch, distinctly white, on the fourth rectrix of the left side and a small patch of grayish white at the extremity of the corresponding rectrix of the right side. Number 16661, C. A. S. collection,

male immature, taken in Sonoma County, California, December 5, 1886, is close to *D. c. auduboni* but has white upon only three of the outer rectrices, has too much white on the eyelids for this species and has a slight indication of postocular streaking, this latter being more distinct on one side of the head than on the other.

Number 42136, C. A. S. collection, male adult, was taken by Swarth, at Atlin, B. C., a breeding ground of *coronata*, April 22, 1934, and is close to typical *coronata*, but on one side the fourth rectrix has an intrusion of white of about the average size found in *auduboni*, whereas the fourth and fifth rectrices of the other side have heavy white edgings. Also, the supraloral streaks are absent and the postocular streaks are much restricted. Strange to say, Swarth did not mention this specimen to me on his return from the Atlin trip, and no comment appears upon the label.

The examples of hybridism above described are the most prominent ones in the Academy collections. There are also other specimens from the Pacific Coast which show more or less indications of mixed blood, but those described herein are sufficient evidences of hybridism to show, beyond question, that there surely must be a locality, as yet not discovered, where there is at least some contact in the nesting season between the two species.—JOSEPH MAILLIARD, *California Academy of Sciences, San Francisco, California, July 8, 1937.*

A Brown Pelican Record from Utah.—While visiting with a group of ornithology students, April 28, 1934, at the Rudy Duck Club near the mouth of the Jordan River on the southeast shore of Great Salt Lake, we observed a flock of about 20 to 30 White Pelicans (*Pelecanus erythrorhynchos*) among which was a pelican of brown plumage distinctly contrasting with the other birds, which we concluded must be a Brown Pelican (*Pelecanus occidentalis*). We observed the bird in the flock several times during the day, but could not be sure of the subspecies. However, because of its size, closely approaching that of the White Pelican, and because it was with other birds that had probably come up from the southwest coast, we leaned to the belief that it was a California Brown Pelican (*P. o. californicus*).—A. M. WOODBURY, *University of Utah, Salt Lake City, June 15, 1937.*

The Duck Hawk Breeding in Nevada.—Jean M. Linsdale in his "The Birds of Nevada" (Pac. Coast Avif. no. 23, 1936) lists the only records of the occurrence of the Duck Hawk (*Falco peregrinus anatum*) in Nevada, as one specimen taken by Ridgway in 1868, and sight records in 1868 and 1931. It would therefore appear to be of interest to place on record that there is a set of four Duck Hawk eggs in the Barnes Oological Collection, Field Museum, Chicago, which are recorded as having been taken by F. H. Lord, April 3, 1910, at Walker Lake, Nevada.

I examined this set some time ago and the eggs are unquestionably those of this species; but I have been unable to secure any information as to where they were obtained by Mr. Barnes or any trace of the collector.—CAPTAIN L. R. WOLFE, U. S. ARMY, *May 2, 1937.*

The House Finch at Victoria, British Columbia.—A recent note of interest is that of the occurrence of the House Finch (*Carpodacus mexicanus*) as a breeding resident at Victoria, British Columbia. The birds were first noticed on May 28, when the song of the male attracted my attention. From that date I saw one or both birds daily and soon discovered that they were feeding young. The nest was situated 9 feet from the ground in a Virginia creeper on the south-facing wall of a brick building. On June 10 the writer, accompanied by Mr. Kenneth Racey of Vancouver, B. C., found that the young had left the nest, and two specimens were secured.

Five days later the male was again in full song, and the female was seen carrying nesting material to a new site on the same building. The male of the pair is evidently a young bird, as there is but a slight trace of yellowish pink on the face and throat. The area surrounding the base of the bill appears strongly darker than the rest of the head. The bird is almost identical with a specimen taken in Berkeley on May 16, 1935.

Inasmuch as this finch for the past 3 or 4 years has been reported by Mr. S. J. Darcus, on the basis of sight records, as a regular breeding resident at Penticton, B. C., it will be interesting to see if the House Finch is permanently extending its range to include the humid Transition Zone of coastal British Columbia and the arid Transition Zone of the interior of the province.—IAN MCTAGGART COWAN, *Provincial Museum, Victoria, B. C., June 19, 1937.*

A New Race of Titmouse, from the Kern Basin of California.—The description of the race *Baeolophus inornatus zaleptus* (Oberholser, Sci. Publ. Cleveland Mus. Nat. Hist., vol. 4, 1932, p. 7) from southeastern Oregon, together with Linsdale's (Pac. Coast Avif. no. 23, 1936, pp. 87-88) recognition of this subspecies from Nevada, has led us to a reconsideration of the status of the titmouses in the Museum of Vertebrate Zoology from the eastern parts of California. In doing this,