

was near a mesa on which grew a heavy stand of piñon and juniper. Located at the extreme base of the Book Cliffs, this mesa has an altitude of about 5900 feet, an annual precipitation of 10.6 inches, and an annual mean temperature of 47.8 degrees F.

Formerly about six pairs of hawks built nests on pinnacles within two hundred feet of one another, but boys were able to remove the young from all the nests but one. Remnants of these nests of other years are yet to be seen. This last one, over fifty feet above the sidehill, was inaccessible, but it could be looked into from the rim of the adjacent mesa. The air-line was not over thirty feet; a pair of binoculars brought the scene nearer.

On March 20, 1937, the hawks began to re-line with juniper bark the nest they had been rebuilding with sticks. This nest was reconstructed upon the debris of six or more nests of as many previous years. April 12, one egg was deposited in the nest and the second and last egg appeared April 14. Incubation began after deposition of the last egg. During the interval between the laying of the first egg and the last, a hawk was on the nest occasionally but not at all times, although both parents were always near. The mate of the incubating bird always flew from a nearby pinnacle. Parts of a rabbit were often on the edge of the nest.

At 7 p.m., May 17, the first young was half out of the bluish-white shell. The second hatched either on the evening of May 18 or the morning of May 19. Early afternoon of the 18th the nest contained one young hawk and one egg, but at the same hour the next day there were two young hawks and the headless body of a large blow snake. Both adults flew in circles over the nest and were constantly calling while I was near.

The incubation period, counting from the deposition of the first egg until it hatched, would be 35 days. Bent, in his "Life Histories of North American Birds of Prey . . . (Part 1)" (U.S. Nat. Mus., Bull. 167, 1937, p. 170), gives 28 days as the incubation period for this species. Neither Bent nor Bendire (quoted by Bent) mention a specific case or state their method of reckoning of the time of the incubation period. Even though one counted from the date of the deposition of the last egg until the hatching of the first bird, the incubation period would be greater than 28 days.

These young hawks were watched almost daily until the morning of July 2 when they were seen to fly from the nest for the first time. Their food consisted of rabbits (*Lepus californicus deserticola* and *Sylvilagus* sp.) and blow snakes (*Pituophis catenifer deserticola*). Once a large branch of joint fir, *Ephedra nevadensis*, was seen in the nest. Its purpose is unknown, but it is supposed that bits of it served as food, as the nest did not need repairing and the branch was too small to offer shelter by shading the birds from the hot sun. Not long after their first flight, the hawks were seen to take a dust bath in the soil of the nearby mesa.

This pinnacle with its nest crashed to the sidehill below after a heavy rain during the last week of March, 1938. The nest had again been relined with juniper bark and seemed about ready for the first egg.—ROSS HARDY, Dixie College, Saint George, Utah, December 20, 1938.

An Unusual Nesting Site of the Western Tanager.—All accounts of the nesting habits of the Western Tanager (*Piranga ludoviciana*) to which we have had access state that it builds well out on horizontal limbs at heights varying from 12 to 60 feet above the ground. Grinnell and Storer (Animal Life in the Yosemite, 1924, p. 496) cite, as an exception to this rule, a case in which a pair of Western Tanagers built their nest in a rose bush within 10 feet of the earth. J. K. Jensen (Auk, vol. 40, 1923, p. 464), in recording the presence of 12 nests in Santa Fe County, New Mexico, says that most of the nests were placed far out on horizontal limbs of the Douglas fir, 10 to 12 feet above the ground, then adds, "Only one nest was placed in a scrub oak." No other exceptions to the usual habit of placing the nest well above the ground appeared in the literature we consulted. It seems desirable, therefore, to record one more exception, one that is even a greater departure from the usual selection of nesting sites than those cited by the writers mentioned above.

During the early forenoon of July 30, 1938, while fishing on the Middle Fork of the Stanislaus River, we left the immediate edge of the stream for a short distance to follow a trail that led through a heavy stand of Douglas fir. As we approached an outcrop of rock that formed a small overhanging ledge a female Western Tanager flushed from the small recess (about four feet long and a foot deep) beneath this ledge. She flew to the bough of a fir tree a few feet away, and thinking that she had been foraging on the ground we scanned the surrounding trees for a nest or young birds but saw neither. In a few seconds the male bird joined his mate and both scolded mildly. We continued on down-stream and the female, paying no attention to us, remained in the fir tree. The male followed us for nearly two hundred yards, scolding moderately from the tops of nearby dogwood bushes, or ignoring us occasionally while he dashed out over the stream in pursuit of some insect.

About noon we were returning to our car upstream when we approached the ledge again. This time the female flew while we were a dozen feet away. A slight movement at the point from which

the female had flushed caught our eyes and there on the ground, nicely roofed by the overhanging ledge, was a nest containing four recently hatched birds. None had its eyes open as yet, even though the end of July is late for a brood of tanager to be hatching.

The nest was a shallow, flattish structure about 6 or 7 inches in diameter. The materials used were rootlets, bits of slender twigs, a few scraps of either willow or dogwood leaves, a few tufts of moss and a considerable number of pieces of lichens. The lining appeared to be mostly fine grass blades and bits of lichens, though the birdlets were not molested and we did not see the entire interior of the nest.

There could be no doubt that the nest belonged to the pair nearby, for we had seen the female rise from the same spot twice, though we missed the nest the first time because we thought she was searching there for food. And as we moved on up the trail she immediately returned to her brood, while the male again followed us fully a hundred yards, scolding us at intervals until he felt that we no longer menaced the nest.

This nest was located on the south side of the canyon, the overhanging ledge situated in deep shade in a stand of Douglas fir, about an eighth of a mile below the point at which the Clark Fork enters the Middle Fork of the Stanislaus River. (See the Dardanelles Quadrangle of the U.S.G.S. topographic maps.) It was at an altitude of between 5500 and 6000 feet, in the Arid Transition Zone. There was no scarcity of good arboreal nesting sites in the vicinity, so the choice seems a strange one.—IRA L. WIGGINS and BRUCE L. WIGGINS, *Palo Alto, California, December 5, 1938.*

Notes on the Distribution of Herons in California.—*Ardea herodias hyperonca*. California Great Blue Heron. A breeding colony located with that of the Farallon Cormorants along Sandborn Slough, Sutter County, has fared better than the latter, at least up to February 26, 1931, when last visited and about 20 pairs were commencing to lay. On February 16, 1929, upward of 50 occupied heron nests were counted here. The cause of their depletion is the same as for the cormorants (see Vioffitt, *Condor*, vol. 41, 1939, p. 33).

Over 30 pairs of Great Blue Herons were nesting with the cormorants along Cut-off Slough, Suisun Marsh, April 11, 1920, when a set of fresh eggs of the former was collected; by 1936, the herons had deserted the colony. These observations indicate that the two species may nest together harmoniously. Instances in each colony were found where heron nests occupied the upper parts of trees in which cormorant nests were situated lower down.

An immature Great Blue Heron (no. 1979, now in Paris Museum) was found electrocuted below high tension wires, 5 miles southeast of Willows, Glenn County, December 18, 1936, by J. Delacour and me. Its stomach held remains of six harvest mice (*Reithrodontomys*).

A Great Blue Heron was observed to alight on the surface of Clear Lake, Lake County, mid-day of July 15, 1938, at least a third of a mile from shore. When first seen it was flying, but it soon alighted near what appeared to be a dead young Western Grebe. It sat on the surface near this object for fully three minutes, where it provided an unusual appearance, its long neck held curved like an old Western Grebe's. Although it was dead calm, the heron then took flight with no effort, taking off directly with legs held trailing until it was well under way. No attempt was made to assist flight by paddling the feet on the surface (see Cottam, *Condor*, vol. 41, 1939, p. 37).

The unique ground-nesting colony of these herons near Redwood City, reported by Carriger and Pemberton (*Condor*, vol. 10, 1908, pp. 78-81) as composed of 49 nests on April 14, 1907, continues existence in approximately the same number. April 1, 1928, I collected several sets of fresh eggs from it and last visited it March 25, 1936, when between 30 and 40 nests were observed without special search.

Casmerodius albus egretta. American Egret. Had I kept note of observations of this bird in the San Francisco Bay region in the decade preceding 1925, a number of records could be provided to indicate its gradual increase over that period. Positive recollection, upon reading Stoner's report of 12 birds on the Suisun Marsh, November 16, 1925 (*Condor*, vol. 28, 1926, p. 175), avers that the species was observed there at least as early as 1921, and also in winter and early spring of the following four seasons (near Cygnus Station and four miles south of Suisun). I handled an egret of this kind shot by a gunner two miles southeast of Shellville, Sonoma County, in winter, between 1911 and 1913.

In the area of the Sacramento Valley bounded by Willows, Gridley, Colusa and Williams, my notes record this egret as being rarely seen on visits in the last three months of the years 1921 through 1924. On June 14, 1925, one was observed six miles west of Colusa; by 1928, the species was fairly common. On October 15, 1928, two were noted near Delevan; the next day nine were counted a mile east of Willows, each one perched atop a rice shock in a paddy field. Since that time, numerous observations indicate the egret population of the Sacramento Valley to have increased by leaps and bounds.