

SOME REMARKS ON THE BEHAVIOR OF THE YUCATAN CACTUS WREN

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In its very restricted range in the coastal scrub of the northern part of the Yucatán Peninsula, the Yucatán Cactus Wren (*Campylorhynchus yucatanicus*) is a common bird. A number of ornithologists have seen it, but little is known about its habits. Paynter's (1955:218) only reference to its nesting is a citation of the report of Stone (1890) who found a nearly completed nest on March 19. Apparently nothing has been published on its voice or displays.

Newly built nests of this cactus wren were numerous southwest of Sisal, Yucatán, where we were established in camp from May 7 to 9, 1956. Within a short distance of the camp I located six pairs of wrens, each attending a nest. The species was almost invariably seen in pairs, suggesting that incubation had not yet begun, and at least two nests were still under construction at that time. Low *Opuntia* cacti were common in the vicinity, but I saw no nests in them. Instead, nests were situated from four to seven feet above ground in dense, broad-leaved shrubs (figs. 1 and 2). They were roughly spherical structures of coarse grasses and small twigs, about ten inches in diameter and with an entrance hole below the center on one side. The single one I examined closely was lined only with grasses, but it may not have been completed. A considerable proportion of the nesting material gathered by one pair (both sexes?) came from the numerous old cactus wren nests in the vicinity.

Because of its voice, this wren was one of the most conspicuous birds in the scrub belt. Although most of its calls were *Campylorhynchus*-like in quality, all sounded very different from those of *Campylorhynchus brunneicapillus*. Duet vocal performances were common. These were given only when two birds (apparently a mated pair in each instance) were perched side by side or very near one another in a shrub or on a dead sisal stalk. The birds stretched their necks upward, spread and vibrated or waved their wings, fanned their tails, inflated their throats, and bowed or bobbed up and down elaborately while calling their gruff, throaty, and rather slowly uttered "growling" notes: *chuff chuff chuff chuff chow chow chow chow*. Frequently during a performance, one bird ceased singing for a few seconds while the other one carried on. Rarely, one hung upside down with wings and tail spread and vibrating as it sang in unison with its mate which was posturing similarly (but in an upright position) below (fig. 3G). Sometimes this action terminated the display, but usually one or both birds abruptly flew from the perch following a brief period of intensive singing during which both individuals, standing high, waved their heads from side to side (figs. 3D and F).

Performances took place in various shrubs but not in the 20-foot mangrove trees that formed a solid border to the strip of scrub inhabited by the wrens; two nests were within 65 and 75 feet of the mangrove swamp. The action frequently began near the base of a tall, dead sisal stalk. One bird always preceded the other in the flight to the plant. Upon arrival of the second bird, the "growling" and posturing commenced, simultaneously by each individual, and the wrens slowly hopped and fluttered up the bare stem to the terminal branches where the actions described previously continued for several seconds or minutes. Throughout the performance the birds remained within a foot or so of each other, pausing quietly at brief intervals as they worked upward and after they reached the branches.

The display often took place between a bird's flights to its nest with material. On May 8, the first such trip I observed occurred at 8:45 a.m. After the wren's grasses were added to the nest, it flew to a small branch near the top of a sisal stalk 20 feet from the nest shrub. As it arrived, its mate alighted beside it. Both birds immediately raised

their heads and uttered a low-pitched, guttural, but very loud and emphatic *chee! chee! chee! chowl! chowl! chowl! chowl! chowl! chow! chow!* This lasted nearly four seconds and was followed by a softer chatter accompanied by wing-spreading, wing-waving, and rapid bowing. Another loud duet song was uttered. Then one bird preened its feathers as the other dropped down into the brush. There it spent some minutes gathering more grass which it took to the nest. It was followed by its mate but I could not see where the second bird went. Suddenly both flew back to the base of the same sisal stalk and

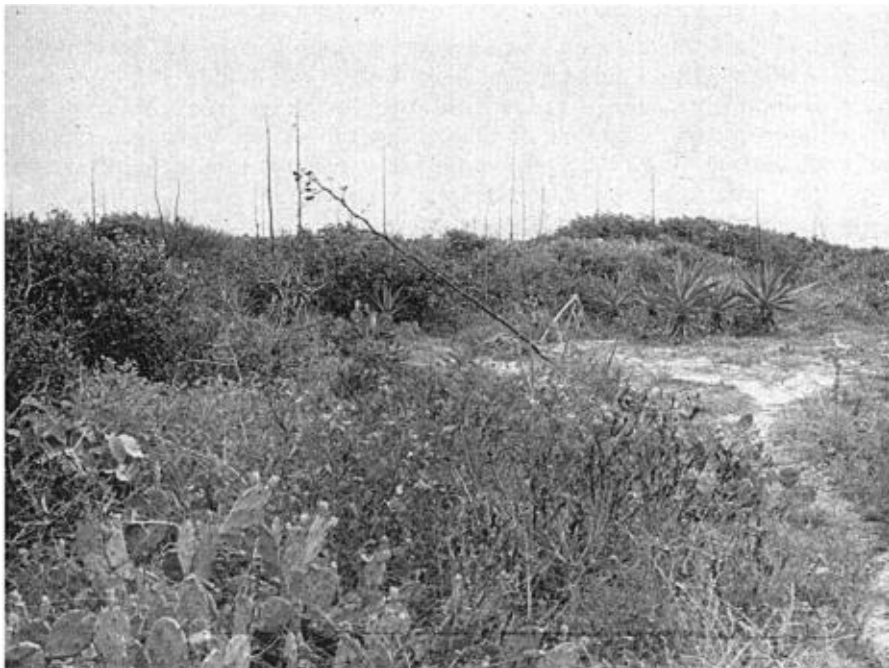


Fig. 1. Habitat of Yucatán Cactus Wren three miles southwest of Sisal, Yucatán, May 9, 1956. This vegetation type is confined to extremely narrow strip along immediate coast; in the 30 miles between Sisal and Celestún it is only a few hundred yards in width.

worked their way an estimated eight feet upward, "growling" and posturing. Once they reached the branches they continued the noisy display for three minutes, interrupted only when a large, low-flying flock of Eastern Kingbirds (*Tyrannus tyrannus*) flew directly overhead. The wrens stopped, looked up at the kingbirds and watched after them for several seconds, then suddenly resumed their duet as if nothing had interfered. The two display periods and two trips to the nest occupied approximately 15 minutes.

The photographs presented in figure 3 illustrate part of a "climb" up a sisal stalk and the subsequent display. When the display was underway, parts of the birds' bodies were almost constantly in rapid motion, and numerous photographs taken at speeds of $1/250$ and $1/500$ of a second were badly blurred.

The wrens had numerous chattering notes similar in quality to those previously described which I did not record. One pair uttered a somewhat more elaborate, rolling *cheerrow cherrow chowk chowk chowk cherrow*. Still another song sounded like *chúck chaweék chawów, chúck chaweék chawów*. This was given by a lone bird from a secluded perch not far above the ground. Vocal efforts that I interpreted as territorial songs,

given by single birds from conspicuous perches, were not common. However, one such evening song, quite different in quality from the "growling," was heard from a bird on May 7 and 8. I recorded the phrase, which was repeated several times before a pause, as *what-a-luk, quaaaaark*, the last note drawn out and abruptly descending in pitch. This individual's morning song, heard first at 5:10 a.m., before sunrise, was a somewhat chat-like *chook chook tawúr eek*, repeated three times from the top of a five-foot sisal stalk. I heard this only a few times, and only rarely after 6:00 a.m.



Fig. 2. Adult Yucatán Cactus Wren near its nest (lower right corner) in top of five-foot shrub, three miles southwest of Sisal, Yucatán, May 9, 1956.

Upon examining the literature for purposes of comparing the habits of *yucatanicus* with those of other cactus wrens, I find there is surprisingly little published information on the displays and vocal behavior of *C. brunneicapillus*. Woods (in Bent, 1948:229) writes of a "rapid repetition of a single staccato note. The quality of this note varies, but never in the same series. This type of call is usually delivered from the top of a tree, a building, or a pole, sometimes antiphonally by a pair of birds on the tops of different bushes." Anthony (also in Bent, *op. cit.*: 232) writes that the "normal note" of *Campylorhynchus brunneicapillus bryanti* is "quite harsh and unmusical, consisting of a series of notes rapidly uttered in a monotone." Dawson (1923:664) refers to the song of *C. b. couesi* as "a rich yodelling alto of uniform tone—uniform, that is, save for the light crescendo with which the series opens, and the fading murmur of its closing note." Brandt (1951:184) wrote of an Arizona Cactus Wren that "uttered incessantly his 'riv-riv-riv-riv' notes, always in the selfsame key and so rapidly that one could not count them audibly. The series ran from 8 to 12 notes with a considerable pause between each group." He mentioned another song with 12 to 18 notes per group, and wrote further: "In addition, this wren has a series of coarse, scolding notes similar to those of the House and the Long-billed Marsh wrens, which is entirely unlike the territory song. These anger notes, however, are seldom used except in cases of unwelcome intrusion upon its territory."

Most authors describe the voice of *C. b. couesi* as a monotonous, rapidly uttered "choo-choo-choo-choo," "chut-chut-chut," or "chair chair chair" (Hoffmann, 1927); "cheh-cheh-cheh-cheh," "chug-chug-chug-chug . . ." (Peterson, 1941). Mrs. Bailey (1928:542) quotes Merrill's description of a more complex phrase: "'chur-cha-ra, chur-

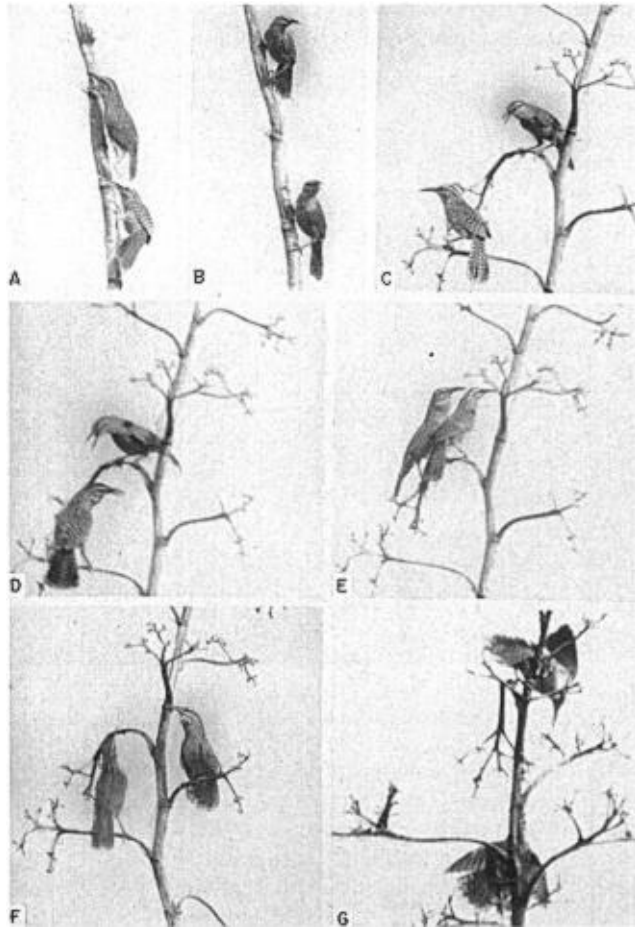


Fig. 3. A pair of Yucatán Cactus Wrens singing and displaying on a sisal stalk about 20 feet from nest shown in figure 2. Photos of this series were taken in sequence as the birds progressed from near base to top of plant. The initial part of the "climb" and various positions assumed by the birds in the branches are not represented. Photo G is of same individuals but in another series.

cha-ra, chur-cha-ra, chur-cha-ra.'"

My own limited experience with *couesi* in Texas has not revealed any song not adequately represented by these descriptions. I do not recall them changing notes within one phrase, although possibly they do. Most phrases I heard from *yucatanicus* contained two or more distinctly different notes. When a phrase consisted of the repetition of one note, that note was invariably di-syllabic (*chúrry chúrry chúrry*; *chewówl chewówl chewówl*). Furthermore, these calls were seldom given by

one bird. They did not seem to be the equivalent of the *churr-churr-churr* of *brunneicapillus* which is apparently the territorial song.

C. b. guttatus, which I heard in June near Guadalajara, Jalisco, was not particularly vociferous except for scolding notes given when I approached nests, which contained young at the time. However, I heard several *churr-churr-churr* songs that sounded similar to those of Texas birds. Interestingly, Beebe (1905:95), writing of birds near Guadalajara, said "A harsh *churr! churr!* is their only utterance, apparently an alarm note, for as we passed along, the mesquite fairly hummed with the sound, surrounding and accompanying us."

The only reference I have found to displays of *C. brunneicapillus* is that of Mrs. Bailey (1922:164) who wrote: "On January 15, a warm day that might have suggested nesting time, I heard an outburst of song and found four Cactus Wrens excitedly gathered about one tree which contained two old, broken-down nests. Two of the birds were singing with great animation, one on top of a bush spreading his tail. On January 29, another spring-like day, Mr. Bailey found some of the wrens . . . 'singing, chasing, and fighting.' Then, on February 15, what appeared a bit of courtship rivalry was witnessed."

I have found no mention of duet singing or of elaborate displays which, if they occurred with any regularity in *C. b. couesi*, would almost surely have been described. I have spoken with several persons who are familiar with *C. brunneicapillus* in Texas and Arizona, and none, apparently, has witnessed such behavior.

Duet singing is common among Central American "cactus wrens." Excluding *brunneicapillus*, I have heard what I believed to be duet singing from all Mexican species except *chiapensis* and *megalopterus* which I have seen but once or twice in the field. Skutch (1940:296) refers specifically to *C. zonatus*, *C. rufinucha capistratus*, and *C. chiapensis* as species which "perform in unison rather than in the antiphonal fashion."

Van Rossem (Dickey and van Rossem, 1938:432) wrote as follows of *C. rufinucha capistratus* in El Salvador: "The reunion of a pair of birds which has been separated for a few minutes is always cause for an outpouring of several seconds' duration, as both birds go through their unmusical repertory with outspread tails and quivering wings." These remarks apply equally well to the Yucatán Cactus Wren. It is perhaps significant that van Rossem did not compare the actions of *C. r. capistratus* with those of *C. brunneicapillus*, a bird he knew quite well.

Blake (1953) and Paynter (1955) have followed Hellmayr (1934) in treating the isolated *yucatanicus* as a race of *C. brunneicapillus*. However, the differences in song and displays between these two forms, in conjunction with the well-known morphological differences, are strong evidence against considering them conspecific.

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