NOTES ON THE SOCIOLOGY OF THE LONG-TAILED YELLOW-BREASTED CHAT

By ERIC CAMPBELL KINSEY

In middle June of this year a trip was made to the town of Snelling, in Merced County, California, for the purpose of collecting living specimens of the Long-tailed Yellow-breasted Chat (*Icteria virens longicauda*). These living specimens were desired in pursuance of the study of the evanescence of color in birds having yellow and red predominant in their plumages. The particular study system followed contemplates the holding of such specimens in aviaries over the period of one or more molts, after which they are to be banded and released during one of the ensuing migration periods. Subsequent attempts at recapture, for comparative purposes, are to be made in successive seasons.

The immediate scene of operations at Snelling was the river bottom south and west of the town, representing an area roughly two miles long and a half mile wide made up of the usual riparian associations which are so attractive to the species desired. While engaged in our trapping operations, several definite peculiarities were noted which may be of interest to others, hence the following notes.

The usual territorial rights, enforced by breeding birds generally, so far as their own species is concerned, obtained markedly with the chats. Each breeding pair appeared to stay strictly within its own territory except when there was a general alarm emanating from a particular territory (such as that occasioned by pilfering jays or hawks), when a number of chats would congregate at that spot to aid in driving away the would-be despoilers.

Each chat followed a very definite schedule each day. For example, a certain male would appear at dawn on a particular dead branch some fifty feet up in a cottonwood tree and, after a short song, would then fly down to a definite spot in an adjacent flooded meadow, whereupon satisfying his appetite he would return to the original perch. After remaining there for several minutes, singing, he would repair to a particular branch in the middle of a near-by elderberry bush, drop from there to a certain nettle stalk, cross to the nest where his mate was brooding eggs, and after (presumably) feeding her would again return to the dead branch in the cottonwood. Then he would fly to the irrigation ditch for his early morning plunge, return again to the cottonwood branch, preen and complete his toilet; then down into the meadow for more insects, back to the original cottonwood, again to the elderberry patch, down to the nest, etc. This routine was followed out with little variation throughout the morning. Immediately after mid-day he would descend from the cottonwood to another patch of elderberries on the opposide side and to an adjacent dry meadow where grasshoppers were quite plentiful; then would again return to the cottonwood, from there drop down to the nest, and, after being satisfied that all was as it should be, would once again return to the cottonwood. The same procedure would be followed all during the afternoon, broken only by a bath in the irrigation ditch just before dusk. The nest was situated due east of the cottonwood and it was the eastern part of the territory, upon which the sun shone, that he foraged in the morning. In the afternoon the sun was on the west of the cottonwood and it was the western section of the territory that then received his attention.

This species is apparently as casual as are hummingbirds, so far as their mates are concerned. Again, to illustrate, a certain female was trapped late one afternoon whereupon her mate appeared next forenoon with a new female and, on the succeeding day, this pair started constructing a new nest near the site of the old one. On

the following day the male was trapped and on the next day what we assumed was the remaining female appeared with a new male and afforded every evidence of mating. This particular pair was located at one of the extreme ends of the territory covered. Another pair was under observation at the other end of the territory, where the male was first trapped; two days later the female appeared with a new male whereupon she was trapped and, on the following day, the same male appeared with a new female. It might be mentioned at this point that the males were at all times definitely identified due to the specific territory they dominated, also due to the exact schedule which each followed every day. Individual female identification (with one exception) was more difficult and we could only assume that, after trapping the first male, the female who reappeared the following day was the mate of the collected male. The exception mentioned was a female which had a broken wing quill, which stood up at such an angle as to afford easy and positive identification.

Further, in attempting to trap the mates of birds already taken, it was found impossible to use the collected specimens as decoys in the trap. In other words, neither the male or female mate of a captive specimen would enter a trap in which that specimen was held. On the other hand, a male decoy would invariably trap another male, merely by our placing the trap in the definite territory of the bird wanted. Similarly, a female decoy would capture another female by placing the trap with the decoy near the presumed nesting location of the female wanted.

In the case of the first pair mentioned above the male appeared with a new female on the succeeding day after his original mate had been trapped, and immediately started nesting operations within a few feet of the old nest, notwithstanding the fact that his old mate was anxiously calling to him from a trap placed along side the old nesting location. He appeared to be blithely indifferent to her presence in the immediate neighborhood and entirely heedless of her present difficulty (confinement) and possible fate. This, in marked contrast to certain other species of the order Passeriformes, as for example, the Lazuli Bunting (Passerina amoena), the Green-backed Arkansas Goldfinch (Spinus psaltria hesperophilus) and the Brown Towhees (Pipilo fuscus petulans and P.f. carolae), all of which are devoted mates and parents.

A female chat was flushed from a Sacramento Spotted Towhee's (Pipilo maculatus falcinellus) nest which contained one partly incubated egg of the towhee and four similarly incubated eggs of the chat. This female chat was unfortunately killed by the trap in which we were subsequently trying to take her. On the same afternoon, after one of the chat's eggs and the single towhee's egg had been taken from the nest and opened to ascertain the state of incubation, a female towhee was found brooding the remaining three chat eggs. Once in the afternoon, while observing this unusual state of affairs, the male chat, mate of the trap-killed female, flew down near the nest and drove the female towhee away. He would not, however, go within two feet of the nest, probably due to the fact that we had had to cut away not an inconsiderable amount of the blackberry vines in which it was placed, in order that we might carry on observations from a distance with field glasses. The following morning the towhee was again brooding the eggs and continued to do so until late afternoon when the male chat again started his characteristic "dropping song" for the benefit of a new female which, at that time, made her first appearance on the scene. A short time later he and this new mate were investigating the covert in which the towhee's nest was located and again the towhee was driven from the nest. However, upon our leaving Snelling two days later this pair of chats was busily constructing a new nest at quite some distance from the old towhee's nest and the towhee was still brooding the chat eggs. It was our intention to return to Snelling a fortnight later to ascertain whether or not the towhee was successful in her maternal duties; unfortunately we were not privileged to make the trip.

At about 6 o'clock on the morning of August 15, 1934, while making the rounds of traps located on the grounds of my home at Manor, Marin County, California, I heard the characteristic click of one side of a catapult trap and, glancing over at it (a distance of some twenty feet), I thought we had obtained, for banding, our first thrush of the season. From the distance I judged it to be a Russet-backed Thrush, so completed the task I was then engaged in, that of releasing and banding two Lutescent Orange-crowned Warblers (Vermivora celata lutescens) from a near-by water trap. I then walked over to the catapult and was greatly and agreeably surprised to discover that the "thrush" was in reality a Long-tailed Chat, an immature of the year.

This, so far as we can learn, is the first fall record for Marin County, of this species. It has been listed as only occurring in the county as a "rare spring visitant" and this would appear to be quite correct inasmuch as an intensive three-year search, made up of many field trips during the spring months, has failed to locate it, nor have we ever heard one note of its characteristic song in that time.

The probable explanation of our capture of this particular specimen lies first in the fact that it is an immature and evidently had strayed from the species' usual channels of migration. And second, that it was undoubtedly attracted to the trap by the living specimens brought back from Snelling which are held in an aviary situated approximately twenty-five feet from the catapult. The latter was baited with weed seeds, an unusual bait to attract an insectivorous species, except through curiosity. No other chats have been either sighted or heard in the vicinity although a careful watch has been kept for them during the last few days.

Unlike the individuals trapped at Snelling during the breeding season, this particular one evidenced very little fear when handled and is as tractable and steady in confinement, as are now the Snelling examples which have all "cage molted" into fearless, and beautifully plumaged birds.

Manor, California, August 20, 1934.

PERPLEXITIES IN THE MAKING OF A STATE LIST OF BIRDS By JOSEPH GRINNELL

For quite some time I have made it a pleasurable duty to keep chronicle of the published literature bearing in any way upon the bird-life of California. This activity of mine has resulted in a manuscript bibliography and synonymy which have kept growing ever more rapidly since their beginnings in 1899. They are right now brought down to date, that is, about as nearly down to date as a thing of this sort can be brought—in the nature of the case.

These materials, constituting a kind of bookkeeping system, make it possible at any one time to count up the number of species credited to the state and to examine the status of each in the light of accumulated knowledge. I propose presently to give some of the current figures. But first, there are difficulties that I want to tell about. Just how shall a state or regional list be made up? In undertaking to compile a new, down-to-date distributional list of the birds of California, I am confronted first of all with the problem of just where to fix limits for the inclusion of kinds.