

type of *morcomi* and unusually narrow in its streaking. But in this case, the small size of the California skin at once distinguishes it. The same example also very closely resembles a skin from Delavan, Wisconsin, and one from East Providence, Rhode Island, both of which are unusually lightly streaked for *æstiva*. The Rhode Island skin (No. 1613, Coll. T. J. H.) is also smaller than the eastern average, so that the differences in this instance I confess to be not obvious. But this only goes to show how the normal range of variation in two subspecies may result in close resemblances in certain individual cases. And this is exactly what must be expected where the degree of difference is not greater than the normal range of individual variation. Among the females the color differences appear even more constant. Among thirty examples of *brewsteri* there are none so yellow as to be comparable to any of my *æstiva*. But the available series of the latter (thirteen) is altogether too small to make a conclusion at all satisfactory. The yellowness of females from the Rocky Mountains and eastward holds in all the examples at hand as a distinguishing character from California birds. But in each series there is considerable variation, and it would not be surprising if overlapping of characters would be found in larger series. Discrepancy in size ought still to offer a valuable criterion in the great majority of specimens. Out of the present series (one hundred and sixty in all) only about three per cent of specimens are not with certainty identifiable without reference to locality. The average differences are perceptible at a glance to any one. I therefore recommend that the California yellow warbler receive recognition in nomenclature along with the many already accepted subspecies of the same rank.

### Nesting Dates for Birds in the Denver District, Colorado.

BY FRED M. DILLE.

SOON after I began the exchange and barter of "bird eggs" at Greeley, Colorado, in 1882, I noticed that altho the data coming from the East was nicely written and arranged according to the rules of "Lattin's Hand-book," the dates of collecting for allied species were not good guides for me in my raids about my own locality. The Colorado calendar appeared to be later than the Eastern by from one to four weeks. I therefore began to list my results as to sets, their state of incubation and date of collecting, which list thereafter made my finds much more satisfactory. After moving to Denver in 1892, I continued my work on the list, and it was found of much service by friends coming from the East who wished to do some collecting, and who realized after experiencing a good snow storm in May that their Eastern knowledge would not benefit them much here. I hope therefore the publication of these oological secrets will prove of value to all new comers. For I know that, if we Colorado boys were to try our luck in California or Maine, we would lose much time if we could not get help of this nature.

The first aim of an oological collector is to find his sets full, as to the number of eggs, and at the same time lacking incubation. The next plan is not to waste your time beating about for meadowlark's nests when the killdeer and her nest demand it. These points are the gist of the list. I have bunched the varieties as much as their averages will permit, and from the time that collecting becomes interesting I have put them one week apart. Collectors who are employed in banks, offices, etc., will perceive the utility of this arrangement without more disclosure.

The first criticism I expect will be to the effect that some one has taken a set of 8 magpie, fresh on April 15. So have I, but I have also taken 253 sets of magpie and the date given on the list has given the best results. Most all of these dates are therefore the result of much collecting and many years work. I have

not put every bird on the list; something over one hundred varieties are supposed to nest in this vicinity and it is not necessary to make it so long. "Birds of a feather can be flocked together."

This is the result of work in the district from Denver to Cheyenne and westward to the foothills of the Rocky Mountains, a piece of country of an elevation ranging from 4000 to 5200 feet, crossed by many streams, and much of which is under high cultivation. Our weather in the spring is very uncertain. There is snow and frost often in the month of May, and the trees native to the country are not in full leaf until May 15. The settlement of the country has not changed the habits of the weather and therefore the birds have not changed their dates.

From the foothills, westward, the altitude increases from 5200 feet to 9000 and more, in a traveling distance of thirty miles. One can therefore put in a good season at the foothills until about June 15, and then in a day's journey locate near timber line and obtain another fair season. There are numerous birds which nest both at the foothills and throughout the intervening country to the high altitudes, notably the bluebird, hummingbird, siskin, dipper, Lewis woodpecker. The difference in date for the same species and at different locations is very noticeable. I have on hand much data for a high altitude list, but wish to strengthen it with more field work in those regions before publication.

Since this is a list for oologists, will the critics please overlook my lack of the scientific in stating my bird. They will know which ones I mean, better perhaps than if I used the shifting nomenclature of the A. O. U. I also wish to keep out of trouble on the subspecies business. The list pertains to the *dates of nesting* of certain species, and to be more exact in the hair-splitting is immaterial.

If you will read the "A. O. U." check-list somewhat, you will find that this identical strip of country has been used for the dividing line between the "Eastern" and "Western," the "American" and the "desert" varieties on scores of birds, and therefore you had best keep out of the "committee room" yourself. There are dates for *initial* sets, resultant from spring migration and the regular order of nature. Second sets are accidental and irregular.

MARCH: 1,<sup>a</sup> golden eagle; 12, western horned owl.

APRIL: 15, Rocky Mountain screech owl; 22, short-eared owl,<sup>b</sup> American magpie.

MAY: 1, great blue heron, ferruginous roughleg,<sup>c</sup> sparrow hawk, long-eared owl,<sup>d</sup> desert horned lark<sup>e</sup>; 8, crow, killdeer, mallard duck; 15, pine siskin, Say phoebe; 22, western robin, burrowing owl, meadowlark, mountain bluebird,<sup>e</sup> white-rumped shrike; 29, Brewer blackbird, yellow-headed blackbird, red-winged blackbird, cowbird, song sparrow,<sup>f</sup> mourning dove, red-shafted flicker, Forster tern,<sup>g</sup> black-crowned night heron, American bittern, mountain plover.<sup>h</sup>

JUNE: 5, western red-tail, coot, Swainson hawk, sage thrasher, mockingbird, red-headed woodpecker, Lewis woodpecker, barn swallow, cliff swallow, rough-winged swallow, kingfisher, dipper, bobwhite, house wren, lark bunting; 12, kingbird, Arkansas kingbird, Cassin kingbird, black-headed grosbeak, avocet, vesper sparrow, Audubon warbler, yellow warbler, long-tailed chat, Bullock oriole, catbird, spurred towhee, broad-tailed hummingbird; 19, American eared grebe, cinnamon teal, ruddy duck, western night hawk.

a. Figures refer to days of the month.

b. I have but little data for this owl.

c. Bear this date in mind, fully one month before the other hawks of the plains.

d. May 4 is about right for this; May 8 is too late.

e. The most unsatisfactory date on the list, for owing to snow and snakes, they nest and re-nest from April 20 to August 1.

f. In bird boxes, etc., previously occupied they will nest two weeks earlier.

g. By A. H. Felger, Denver.

h. May 29, should be Decoration Day.