

ous situations. I have taken nests from orange trees, ten, twelve and sixteen feet up; from low thorny saplings four, five and eight feet up and many nests from bunches of plantains which generally hang about twelve feet up. I have also seen several among the twigs in the tops of almost branchless trees from twenty to thirty feet up. The birds never build in coffee bushes, and in the cafetal never below the tops of the coffee trees (a height of about ten feet). Nests that are found low down are built in open places.

Giraud's Flycatcher lays usually three or sometimes four eggs. These possess a latitude of variation common to flycatchers' eggs, but may be described as generally resembling the eggs of the kingbird, though perhaps not averaging as heavy in markings. I took my first set of fresh eggs on April 14 and the last on May 4. A set of four fresh eggs was taken on May 10, but it was from a nest from which I had taken a set of four on April 21.

This flycatcher is a friendly little fellow, the clothesline in the back yard being one of his favorite perches, and the trees near the house seemingly his favorite nesting site, as there were six nests within a radius of 100 yards. It is interesting to watch the birds when they have young, and to see them shoot up into the nest from below and presently dive out again.



May in the High Sierras.

DURING the summer-like weather I arrived at the summit of the Central Pacific Railroad, altitude 7,000 feet, the evening of May 10, 1898. There was no snow at the station nor in the large meadow which extends three miles westward, but there were large patches of it on the surrounding peaks and ridges.

The season was unusually early, the willows were partly in leaf and catkin, buttercups, white and blue violets were in flower, while pasturage was good in

the meadow. Frogs (*Hylas*) were peeping, grouse and the Plumed Quail (*Oreortyx p. plumiferus*) were uttering their nuptial notes, butterflies and other insects were numerous, the marmot, chipmunks and other small animals were active but had probably been out of winter quarters only two or three days; as snow was ten inches deep on the second of the month, and did not disappear from the station until the 8th, so Mr. Ott, the agent told me.

The Plumed Partridge (*Oreortyx p. plumiferus*) Blue-fronted Jay (*Cyanocitta s. frontalis*), Cassin's Purple Finch (*Carpodacus cassini*), White-crowned Sparrow, (*Z. leucophrys*), Junco and Arctic Bluebird, (*Sialia arctica*) were common. Additional summer residents in moderate force were noted during the 11th and 12th, namely: Spotted Sandpiper (*Actitis macularia*), Killdeer, (*A. vocifera*), Red-shafted Flicker (*Colaptes c. collaris*), Traill's Flycatcher, (*Empidonax traili*), Ruby-crowned Wren (*Regulus calendula*) and Western Robin (*Merula m. propinqua*). On the 12th I found a nest of the Mountain Quail or Partridge and one of a Junco, each containing a single egg.

The 13th and 14th were warm but there was a great change in the evening of the latter, when a chilling rain was followed by sleet and snow which continued several days until snow was nearly three feet deep, so I was informed. I went over the meadow again in the afternoon of the 15th; the snow was melting about as fast as it fell, and I found a small flock of Horned Larks which had come to spend the summer. With them was a Western Lark Sparrow (*Chondestes g. strigatus*), a storm-bound migrant, probably an intended summer resident of Truckee Meadows. A Barn Swallow (*Hirundo erythrogaster*) was circling over the meadow in a snow-squall, three cock quails were whistling at the same time and a Western Meadow Lark (*Sturnella m. neglecta*) occasionally sang.

A Lewis's Woodpecker (*Melanerpes*

torquatus) flew as rapidly as possible through Donner Pass toward the Sacramento Valley, having been driven from the east slope—its summer home—by the storm. Numerous Belding's spermophiles were scurrying about in the meadow, exhibiting a hardihood with which I had not previously credited them, as they go into winter quarters about the tenth of September,—sometimes earlier. My last observations here, at this time, were on the 16th when, after a long search, I found the two nests I have mentioned in three inches of snow. Both contained three eggs and both had been deserted. The effect of such a storm on bird life can be easily imagined. Frequent sudden changes with snow may be expected from about 4,000 feet upward, anytime in May, and they are likely to occur until the middle of June. Besides destroying some nests the storm must have forced some birds to seek other nesting localities, lower in the mountains.

About every second or third winter snow is nearly twenty feet deep on the level,—sometimes a foot or two deeper, and is so late in melting that few quail breed here, but travel on eastward until they find bare ground. I suppose birds have more trying experiences in these mountains during nesting time than they have in St. Michaels, Alaska, as the mean temperature is nearly the same in both, but in the Sierras there is much more snow. From the foregoing it would seem that an inclement climate is the chief cause of bird scarcity in the high Sierras. However individuals are hardly more numerous in the lower coniferous forest between 4,000 feet and 2500 feet altitude, than in the same forest above these heights. The bulk of the birds in the Sierras are in and near meadows and open parts of the forest,—especially the seed-eaters.

Perhaps few species of Californian birds desire a home in the dense, lonely woods. In the chaparral belt below the fir forest, birds are abundant at all

times, though they have apparently as many enemies as in other parts of these mountains, the California Jay (*Aphelocoma californica*) being more numerous than in any other part of the state. Below this and in the extensive, sun-burned interior valleys, little water, vegetation and few insects are the causes of rarity of birds during the summer, when the annual plants are ripe or withered by or previous to the first of June. Birds sometimes lived in these valleys several miles from water when there were but few farm-houses. I have found Valley Partridges (*Lophortyx c. vallicolus*) in oak groves when there was no water within two miles of them, and supposed they were able to live where they were by drinking dew-drops at morning and evening.

In quite extensive waterless tracts in southern Lower California birds are abundant, as they find in the fruit and sap of cacti a substitute for water. Deer and cattle also thrive there if the cholla cactus is plentiful. On the almost waterless Cedros Island wild goats or deer, perhaps both, opened the tops of the large *Echinocactus* with their hoofs, making a cap-like cavity in which the juice of the plant collected and gave the animal its much needed drink. The coyote shows equal ingenuity on the dry west coast of central Lower California by digging in the sandy arroyos for water. If my Mexican boatmen at La Paz is to be believed it is still more ingenious in getting food, for, according to Pedro, the coyote fishes for crabs with its tail,—sticks its tail down the hole of the crab, the crab bites, is pulled out and eaten. I would advise the reader to salt Pedro's story. Still, it is possibly true.

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J. H. Bowles writes from Tacoma, Wash., that Western Evening Grosbeaks (*Coccothraustes v. montanus*) are very numerous about the city, flocks of as many as forty birds being seen since Feb. 1.