

voiced its anxiety with the peculiar metallic junco chirp, altho seldom allowing itself to be seen.

Within a hundred yards of the first nest another bird was flushed from a cunningly concealed nest, deeply sunken in the ground among the dense branches at the base of a small bush. It also contained four eggs, and the parent upon flushing immediately disappeared and was seen no more.

Proceeding around the lake, a third bird was flushed from a nest built in the center of a small shrub, but not nearly as well concealed as the other two. This nest contained two eggs and two freshly hatched young—tiny, wriggling, pinkish little creatures irregularly covered with very fine grayish down.

As it was raining and the temperature entirely too low for comfort I marked the nests and sought shelter. On my return, a couple of hours later, the parent of the first nest found stayed on the eggs until we almost touched her, and so perfect was the concealment of the nest and the protective coloration of the bird, that altho we knew exactly where to look, both were absolutely invisible to the eye at arm's length. In all it was the most perfectly concealed nest I have ever seen.

The birds on the other two nests, however, flushed much more wildly than on our first visit and were not so demonstrative.

After photographing the nests, the two containing eggs were collected. They are practically identical in size and construction, being strongly and compactly built of dried grass, well rimmed, deeply cupped and lined with finer dried grass and a scant amount of fine hair. They are somewhat longer than wide and measure as follows: Outside, length $4\frac{3}{4}$ inches, width $3\frac{3}{4}$ inches, depth 2 inches; inside, long diameter $2\frac{1}{2}$ inches, short diameter $2\frac{1}{8}$ inches, depth $1\frac{1}{2}$ inches.

The two sets of eggs exhibit a fine variation in coloration and marking. One set has a ground color of light clay color with a slightly bluish tinge, lightly marked with minute and very subdued spots of reddish brown. Two of the eggs are evenly spotted over the entire surface, while on the remaining two the spots are partially confined to the larger ends.

The other set has a much lighter color—almost pure white—clearly and boldly spotted and blotched with clear reddish brown, the markings being heavier and more clearly defined around the larger ends. The heaviest marked egg of this set is almost identical in coloration and marking with a set of Field Sparrows' eggs in my collection.

The two sets are remarkably uniform in size, and average $.75 \times .57$ inches.

NOTES ON REGURGITATION

By HARRIET WILLIAMS MYERS

HAVING been led to believe, thru reading, that for the first few days, practically all birds feed their young by regurgitation, I have been surprised at the number of birds I have observed who do not use this method of feeding, but rather from the very beginning feed insects directly to their young.

In March, 1909, a pair of Song Sparrows (*Melospiza m. cooperi*) nested in the pampas grass in my yard, giving me an opportunity of daily observation. On the seventh of March the eggs hatched and I stationed myself to take feeding record. At 8:50 the female left the nest and began searching about in the grass and weeds. In one minute she returned to the nest carrying a visible object in her bill which

she fed to the young. Several times I saw her bring food in this way to the young. In my mind there is no doubt that she did not feed by regurgitation.

In May of the same year I watched the nest of a Spurred Towhee (*Pipilo m. megalonyx*). When I found the nest there were three newly-laid eggs. I kept watch of this nest, and in two weeks from my first finding it there were three young in the nest. They were quite naked and were evidently hatched that morning or the day before. At this time I watched the birds going to the nest, but because of its location in the grass on the ground, I could not see them put the food into the mouths of the young. Finally, concealed behind an umbrella close to the nest, my companion saw the male come to the nest when the mother was covering the young. As he reached her she stepped aside and the male fed the young fresh food. The next day I was again at the nest. The female was calling piteously and upon looking I found that a snake, coiled in the otherwise empty nest, was the cause of her distress. Presently the male came to a nearby bush carrying a large moth in his bill. This was, of course, intended for the young and seemed proof sufficient that he was not feeding by regurgitation.

Another bird of this same family who feeds fresh insects to young as soon as hatched, is the southern California Towhee (*Pipilo c. senicula*). I have watched many nests of the newly hatched of these birds and always they were fed fresh food as soon as they were fed anything. The food they seem fondest of feeding is a soft light green worm found on weeds or grass. As in the case of the Spurred Towhee I have seen a moth fed when young were two days old.

In April I watched the nesting habits of the Rufous-crowned Sparrow (*Aimophila ruficeps*). On the 15th the eggs were not hatched; but the next day at six p. m., I found young in the nest. I watched the birds for half an hour and saw both of them come to the nest and feed the young with small worms and other insect life.

I have often watched at the nests of *Phainopepla nitens*, a bird belonging to the same family as the Cedar Waxwing, and who is a summer visitant only, in southern California. At the nest of one of these birds which contained newly hatched young, I saw the male go with a blue nightshade berry in his bill. As he rested on the side of the nest he threw back his head and let this berry slip into his throat, then back into his mouth, three times before feeding it to the young. I also saw the female fly thru the air in pursuit of tiny insects then go to the nest and feed. For some time I watched the pair feed, and it was never by regurgitation, unless softening the food by passing it up and down in the throat could be so designated. I believe many birds fill the throat with food before coming to the nest. It is their only means of carrying a quantity and, as I understand it, is not regurgitation.

In the case of a pair of Arkansas Kingbirds (*Tyrannus verticalis*) which I watched, I believe the birds both fed fresh food directly to young and used regurgitative methods. Tho this pair of birds nested so high that I could not look into the nest, I watched them daily and know the young were not more than a day old when I saw both adults fly thru the air, then to the nest where, side by side, they fed the young. Several times I saw them do this. I also saw the female take the nest without feeding and after a few minutes rise slightly and feed the young beneath her. This latter feeding I should call regurgitation, while the former was not.

At a nest of the Arizona Hooded Oriole (*Icterus c. nelsoni*) I saw both birds go directly to the nest with fresh food in their bills when the young were only one day old. After feeding they left the nest.

From these few observations of birds which are supposed to regurgitate and do

not, I am inclined to think that probably very many more of our common birds feed fresh food than we have been led to believe. It seems to me that it is worth the while of every observant bird student to give particular attention to this object of field observation, that we may have more knowledge on the subject.

ROUGE ET NOIR

By W. LEON DAWSON

MAY days lack one of being "so rare as a day in June"; but if oölogists had their way there would be sixty-one of them insted of thirty-one. Yet the luck of the oölogist is as variable as that of the proverbial fisherman, and certain favored hours are likely to stand out in memory from a background of profitless days. I am no believer in astrology, and do not court the sweet influence of the stars, but if anyone will explain to me why a body can find half a dozen choice birds' nests hand running one day and then hunt over the same sort of cover the day following only to return empty-handed, I—well, I will pay respectful attention. "Luck?" Yes, but what is luck? A mere name for our ignorance of causes. "Providence" is scarcely better in this connection, however devoutly uttered. All is Providence in a large, true sense, but we show disrespect to the Almighty if we charge him too strictly with interference among a mass of still unknown second causes. I think the explanation is rather psychological. We are keyed up to respond to certain impressions on certain days, and a "run of luck" follows. We go thru the same motions on a subsequent occasion, but we respond to different stimuli. Our eyes are veiled and our ears muffled to the sights and sounds that we are supposed to be interested in, nay, the very ones that we are striving desperately to interest ourselves in. The difference is inside us where we can't get at it. After all, then, perhaps "luck" is a good enough name for this variable and unbiddable psychological factor.

But it was in no mood of pale philosophizing that I dropt off the first morning trolley at Clover Creek, south of Tacoma, on the 12th of May last. A distant Chickadee "prospect" gave direction and excuse to this morning's jaunt, but there was no hurry. A delicious fragrance of the prairie air and the singing of birds in the fir groves invited dalliance. The Russet-backed Thrush (*Hylocichla ustulata*), belated, had just reported in from the South and was trying the copses with soft quits. A Western Tanager (*Piranga ludoviciana*), also days behind the schedule, piticked languidly. Warblers of rare breeds, chiefly Audubons (*Dendroica auduboni*), Black-throated Grays (*D. nigrescens*), and Hermits (*D. occidentalis*), lispt from the tree-tops; while one gorgeous Townsend (*D. townsendi*) came fluttering down the sides of a great green spire for close inspection. Within the grove itself Hammond (*Empidonax hammondi*) and Western Flycatchers (*E. difficilis*) gave a comparative trial of their different notes. That of *hammondi* is smart and slightly querulous, in contrast with the lazier, drawling note of *difficilis*. Moreover, it is always accented on the last syllable, *sewick'* or *cleotip'*, whereas that of *difficilis* begins rather explosively and continues with a musical sibilant drawl, terminating sharply but without accent, *psss' wit, psui' iut, or swee' ut*.

Our woods are never noisy like those of the East. Most of the vocal offerings, indeed, are all too modest. But we do not complain. It may be the fact that most of our species "catalog high" that makes us content. Certainly the sense of high