TABLE VI.

AGE AT WHICH MOURNING DOVES LEFT THE NEST.

Nest	Date of Leaving	Number in Brood	Age in Days
1	Apr. 19 & 20	2	15
11	May 19	. 2	15
34	May 23 & 25	2	13
20	$\mathrm{May}26\&27$	3	13, 13 & 12
48	May 27	1	12
25	May 28	2	12 & 14
29	May 29	2	12 & 13
118	Sept. 27	2	13 & 14

Four birds left at 15 days, two at 14, six at 13 and four at 12, making an average of 13.4 days. The average age of the 12 birds leaving after May 23, is just 13 days. The young in the two earliest nests staid longer than those later—15 days—whereas no later birds staid longer than 14 days.

Young Mourning Doves are easily frightened out prematurely. The earliest age at which we have found this to occur was eight days—the squab in Nest 48. It was replaced and left of its own accord four days later. In Nest 25 the older bird was frightened off the nest when 11 days old but was put back and did not leave permanently until it was 14 days old.

Norman, Oklahoma.

(To be concluded)

AN ARIZONA FEEDING TABLE.

BY FLORENCE MERRIAM BAILEY.

A FLOCK of Gambel's Sparrows with their handsome black-and-white striped crowns, spending the winter of 1920-21 like ourselves among the mesquites at the foot of the Santa Rita Mountains in southern Arizona, made a bird table seem important; for if they were kept around our tent during the winter, what other interesting migrants might they not tempt to stop in passing during the spring. They were quick to respond to our hospitality, and for five months, during which they were fed daily, made our

Bailey, An Arizona Feeding Table.

camp their headquarters, the younger ones with the brownstriped crowns becoming so tame that they paid little heed to us, some of them even venturing into the tent for food. deliberate, plaintive summer song one hears from individual Gambel's Sparrows in the mountains was rarely heard, the bright, cheery winter chorus of the flock made a delightful accompaniment to the work of the day.

The feeding table was hung in a mesquite too high to be reached by dogs and cats, and yet not too high to be seen from inside the tent when the flap was raised, just low enough in fact for photographs to be attempted from inside, by means of a long string attached to the camera standing outside focused on the table. Unfortunately, however, as the most interesting migrants came with the leaves, the filtered sunshine proved too weak for successful photography.

During the winter the ice frequently had to be broken in the water pan in the morning, and during a memorable April snowstorm the snow had to be scraped off before the food could be put out. The principal foods used were rolled oats, wheat, and mixed chicken feed—weed seed, wheat, barley, rye, kaffir corn, and cracked corn, the cracked corn proving decidedly unpopular. The other seeds were eaten not only by the Sparrows but by the Towhees and Cardinals.

The big fluffy Canyon Towhees, whose gray plumage was touched up by their brown caps, were really the first discoverers of the feeding table but, when the merry troop of Gambel's Sparrows found it and took possession of both the table and the thicket behind it, the quiet Towhees withdrew, contenting themselves with slipping in when the others were temporarily away, or with humbly picking up the crumbs which fell from the crowded table.

A pair of Arizona Cardinals, the male a superb bird, with his vivid red plumage and long nodding crest, were regular habitues of the table. At first they seemed particularly attracted by a cup-shaped section of squash rind kept filled with seed, but soon made themselves at home on the table. The actions of the timid female were an amusing contrast to those of the lordly male. For a long time she was painfully shy in the presence of the flock, usually flying off soon after they appeared, but after three months association with them she was seen actually making a pass at a usurper.

A small water cup nailed to the tree by the table was frequented for a time by a Ruby-crowned Kinglet whose size it suited. On the tree above, pieces of suet and bacon rind attracted the blackand-white barred, brown-headed Gila Woodpeckers, perhaps the pair which had nested in the live oaks of the ranch house.

Besides the Canyon Towhee there there were two others, the common black one, and the unusual Green-tailed, both shy ground birds which came for the seeds dropped from the table and those that in acknowledgment of their earthly preferences were scattered on the ground for them. The black Spurred Towhee, which was heavily marked with white on back, wings, and tail, was seen mostly in his proper setting, scratching among the reddish brown sycamore leaves that matched his rufous sides, well shielded by a protecting tangle of grape vine. He stayed through the winter but when spring came quickly disappeared, for he did not belong among the mesquites and sycamores of our low level.

The Green-tail was first discovered with excited pleasure, feeding on the ground with a party of Gambel's. His plumage was at its best at the time, both for its delicate tones and its high lights. The unusual yellowish green of his wings and tail are always interesting but as he clambered down a bush through the sun it was a flash from his light rufous crown that identified him. As he faced us the dark gray of his throat made his white chin patch stand out astonishingly, like a great white pearl. No mistaking the one who wore that. But when this surprising bird stood quietly in the shadow of a mesquite his presence might easily pass unnoted. With dainty, timid motions of wings and tail he hopped down to scratch among the leaves, jumping and kicking back in true Towhee style. After feeding modestly on the ground all winter, toward spring he was occasionally seen on the feeding table. Once when he made his habitual run from the protecting vine thicket to the ground food dishes, finding them empty, he climbed up to the table, branch by branch. Later he flew to it from its own level, but shortly after dropped to the ground again. When I saw him, or one of his brother earth lovers, sitting up in a tree in the sun I was so amazed that I made a note of it.

As familiarity increased his confidence, our Green-tail began to show some spirit. One day as he came briskly out he calmly drove off an inoffensive Gambel's who happened to obstruct his path. And near the end of April when the striped-cheeked Lark Sparrows came and established themselves at the table, meek, timid Green-tail acted the part of Old Inhabitant. To be sure, when he first found himself near one of the self-possessed New Comers he drew back shyly as was his wont but shortly, as if reacting to its calm assurance, he actually jumped at his bird and fluttered over its head so domineeringly that the big Sparrow accepted the rebuke and flew off—for the moment. While only one of the Green-tails spent the winter with us, on March 29, he was joined by a second, and on April 10, two were on the table; while on May 3, three were in evidence. One of these had evidently met with an accident, for he was minus a tail, but he went about with a lively cheerful air as if thankful it were no worse.

Among the most regular visitors to the feeding table all through the winter and spring were the Mockingbirds, but while they found some of the food put out to their liking, the water was what attracted them the most, especially as warm weather came, when they were very thirsty. While the Sparrows and most of the other birds that came perched on the edge of the water pan and leaned down to drink, the Mockers, by reason of their long legs and larger bodies were able to stand on the table beside the pan and reach over to the water.

The Phainopeplas, or Silky Flycatchers, the crested males jet black, the females gray, were also thirsty birds. Although a few of them visited the misletoe near camp during the winter it was not until a spring contingent arrived about the middle of April that they were noticed coming for water. After that, for some time they came regularly at breakfast time and on warm days, at noon, when we could watch them from our own table under the trees a few yards away. Sometimes one after another would fly down to the pan until there were five or six drinking at the same time. A satiny black male might be squeezed in between two dull gray females or immatures. Like the female Cardinal the female Phainopeplas were sometimes shy, coming with partly flattened crests. The large, plump Mockingbirds which drank with them

were a decided contrast, looking up at us with calm confidence. They would take great draughts of water before standing erect, while the slender Phainopeplas would lean over the pan, take a sip, and raise up, their black bills wet and glistening. Sometimes we would catch the jet of a long square-cornered tail or a flash from a white wing patch as one started to fly. During dinner on April 28, we counted eleven Phainopeplas, four or five of them black males standing on the water pan or perching in the green branches above. When a crowd of birds of other kinds were on the table they would not go down to it. They would, perhaps, stop in the trees across the trail and look and crane their necks and lean toward the table, but in spite of their compelling thirst they would wait until they could have a quiet moment with those of their own kind. Once when a gray Phainopepla wanted to drink and a Cardinal was in possession of the pan, it hesitated on a twig above the water after it had started forward actually holding onto its perch with its feet until it swung head down like an acrobat. As it dropped the Cardinal made a pass at it before flying off.

When looking out at the birds from inside the tent one day I was astonished to catch sight of the strange parrot-billed Pyrrhuloxia with pink vest and long crest, on the bushes below the feeding table; but while I was gloating over the rare sight he vanished.

During the migration, watching the bird table became doubly interesting. There was no telling who would come during the day. On April 23, a familiar, faintly whistled note made me look up, and in a moment more I caught a fawn-colored, crested form and then the yellow tail band and red-wax wing tippings of the Cedar Waxwing. Three finally came to the branches just over the bird table but as their relatives the Phainopeplas and others were at the water pan they did not come down.

On April 24, when the bird table was being photographed, a meek little Inca Dove was discovered on a branch over the table and later was seen on the pan. "It drinks like a horse," was suggested, for after putting its bill in the water it kept it there, not raising it to swallow as the other birds did. When it flew down under the table to pick up seeds, its scaled plumage and long, tightly closed tail showed plainly and when it flew up the brown inner webs of its wing quills were disclosed.

On April 26, the first Lark Sparrow was found on the table. When flying to it his white tail corners showed well and when standing on the table in the sun his crown and cheek stripes shone out strikingly in formal pattern. His burred song, after the clear song of the Gambel's to which we had been listening all winter, sounded strange to our ears. A week after his arrival four were seen on the table at once. Their assurance was still affecting the nerves of the usually self-effacing Green-tail, and on more than one occasion the Old Inhabitant was seen flying at the New Comer with temper.

April 27 was a banner day at the bird table. While we were at breakfast a beautiful gray-headed, yellow-breasted McGillivray's Warbler—seen before near the ranch house—appeared for a moment on the bird table. Later when a Green-tail was on the water pan, a big Cassin's Flycatcher flew in and perching on a twig above looked down at the water, his white chin patch showing well against his dark throat. He evidently wanted to go down to drink but he was big and awkward. Finally, however, he managed to get himself down to the edge of the pan and leaned over, drinking with satisfaction. He staved there until a Canvon Towhee came along when, perhaps not knowing its gentle spirit, he flew away. Then, much to my surprise, a Long-tailed Chat, always a handsome bird with his deep yellow breast, cool olive back, and clear white eye-markings, appeared on the scene. For a week the shy, secretive visitor stayed about camp, coming out of the grape vine thicket to get food and water, when, strange to say, he showed no hesitation about driving off the Sparrows which he found in his way. Day after day, much to my amusement he returned to a pan on the ground to get a taste of raspberry jam, apparently enjoying sugar as much as the Crossbills do salt. Later a pair of the big, distinguished looking White-winged Doves drifted up from the ranch-house oaks to the bird table and after picking up a little food jumped up on the water pan and walked along its rim showing their pretty pink feet. On that same eventful day two other birds were seen on the fragrant yellow-tasselled mesquite over the bird table. One, the black-capped, yellow Pileolated Warbler, who looked down jauntily at the table in passing; the other, the large dull-red and brown-cheeked Hepatic Tanager. Below him two Gambel's Sparrows and two Phainopeplas were on the pan drinking and while we looked a Mockingbird flew in. What did they find to attract them? He flew closer and closer to the table and turned with a deliberate air as if to judge for himself, but failing to find either insects or berries, flew off.

Another of the birds which apparently came to the mesquite to see what was the attraction and went away without testing the fare was the Arizona Hooded Oriole, from the sycamore tree over the tent. Probably juicy insects and ocotillo syrup had already quenched his thirst.

On April 28, a female Black-headed Grosbeak was seen above the table, and on May 3, a male, but just as we were looking for him to go to the table something startled all the birds and he rose with the flock.

May 1 brought two surprises. First, when I looked up, a dainty blue-headed Lazuli Bunting stood perched over the table. Hardly had I had time to recover from my surprise and congratulate myself on seeing my little California friend again, however, when he disappeared. Then to my astonishment, on a tree across the trail from the table there appeared a bird I had never seen—a large black, red-eyed Bronzed Cowbird. Instead of looking wistfully across at the food and inching over timidly a little at a time as most of the birds did on their first arrival, he calmly flew across and fell to, drinking his fill and eating as if famished. His meal over, he flew down to the ground and for a few moments paraded around in the sun, where his large bill, bluish iridescent wings, bronzy neck, and theatrical red eyes showed strikingly; after which he left as suddenly as he had come, to be seen no more. Fearless, self-confident, he had taken what he wanted without question, in characteristic Cowbird manner. What a positive character! I could not get him out of my mind.

That morning when we had been breakfasting a bright red Cooper's Tanager had appeared on the bird table. Before we could more than exclaim at his brightness—such a contrast to the dullness of the Hepatic seen there before—he was gone. But during the afternoon he returned and drank from the water pan.

On May 2, a bird which may have spent the winter in the neighborhood appeared in the flock of Gambel's Sparrows, a White-

crowned Sparrow, distinguished from his confreres by the small but important mark, the black spot between his bill and eye.

One of the Gambel's Sparrows gave me a surprise that day by taking a bath in the water pan. He was the first bird I had seen all winter presuming to use water for that profane purpose. For in that year of drought in the desert both bird and beast were fortunate indeed if they could get enough to drink. The bath was doubtless accounted for by the fact that gambeli is a bird of lush mountain meadows threaded with running brooks. Certainly no right-minded desert bird would have been guilty of such shocking wastefulness.

The following day to my great satisfaction the third and last of the Tanagers to be looked for here appeared over the bird table—the red-headed, yellow-and-black Louisiana. For some time in the characteristic deliberate Tanager way he looked down at the table as if trying to fathom the strange phenomenon, but at last dropped down to the water pan.

The next three days we were so busy breaking camp that we had no time for the bird table. But although we left the mountains without seeing the last birds the migration should have brought us, I had seen enough to leave with a lively sense of the keen interest and pleasure afforded by a camp feeding table.

Of course many migrants, especially Warblers, Vireos, Flycatchers, and Hummingbirds passed through the neighborhood, many of them through camp, without visiting the bird table; but that is another story.

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A VISIT TO MIDWAY ISLAND.

BY PAUL BARTSCH.

The little paper here presented was prepared as we left Midway Island in 1907, it being my intention to send it to 'The Auk' from Guam. The manuscript was lost, and has only recently again come to hand. Believing that the data contained in it have sufficient value to merit publication I submit it even at this late date.