

river, and as many Black and Turkey Vultures lined the banks to secure such morsels of food as were washed ashore. The grackles and crows fed over the turbulent water, picking up morsels of food with the skill and dexterity of the typical water birds. The feet and even the breast feathers of many of the crows and grackles were seen to touch the surface of the water momentarily as the birds hovered over this (for them) uncharacteristic feeding place.—CLARENCE COTTAM, *U. S. Fish and Wildlife Service, Chicago, Illinois.*

Winter insect food of chickadees.—It was recently my good fortune to add to the records of the former Biological Survey the nymphs of two species of insects which are devoured in countless numbers each winter. While making studies in forest ornithology I often pass through open spaces thickly overgrown by sumac of several species. In these openings I had noted Black-capped Chickadees (*Penthestes a. atricapillus*) and several other birds feeding on sumac berries and insect life found within the fruit clusters. But on two species of sumac, *Rhus glabra* (smooth sumac) and *Rhus copallina* (dwarf sumac), I noted that chickadees spent much time picking minute objects from the bark of the stems at many points between the ground and the seed clusters. Examining the birds with close-up glasses, they could be seen eating black specks from *R. glabra* and less conspicuous brown specks from *P. copallina*. With a hand lens it was plain that the two types of scale-like organisms must be different species, as the black ones were differently sculptured and were fringed by a larger number of marginal setae than the brown ones, and that each was found only on its particular species of sumac. I shaved off thin slices of bark with the nymphs attached and sent them to Dr. Muesebeck, in charge of insect identification of the U. S. Dept. Agriculture, and he passed them to Dr. Oman who recognized them as the winter stage of "jumping plant lice," family Psyllidae. The black nymph was that of *Calophya flavida*; the smaller brown one, that of *C. nigripennis*, these being the only species of *Calophya* known to occur in the eastern United States.

In May, I was able to watch the very different and active adult insects emerge from their respective, sedentary nymphal forms which, however, began to crawl around a little before this metamorphosis. Then, indeed, they took on a very different form. The wings of *nigripennis* were very pale at first, soon turning black, while those of *flavida* remained yellowish.

Writing of the matter to Dr. Phoebe Knappen, of the Fish and Wildlife Service, she kindly added these species to the list of insects eaten by chickadees, as they did not appear in the records. Dr. Knappen informed me, however, that in 1927, T. T. Odell published a bulletin in Geneva, N. Y., on "The Food Habits of Orchard Birds with Special Reference to the Pear Psylla." As a result of his studies, Odell found that the Black-capped Chickadee is the most important single bird enemy of Psyllidae in that region.

My own observations show that in winters in which the *Calophyae*, which we may here call sumac psyllids, are very abundant, the chickadees consume enormous numbers of the nymphs of the two species.—RALPH E. DANFORTH, *Noank, Conn.*

Migrant Gray-cheeked Thrushes in song.—During the exceptionally rainy spring of 1943 when bird song seemed somewhat scarce, I was fortunate twice in hearing the song of the Gray-cheeked Thrush (*Hylocichla minima*), a bird which I have always hesitated to list from sight alone. On the first occasion, about eight in the evening of May 11, I was attracted to the bird by its call which was not

familiar to me, and, although I did not have my binocular with me, I was able to approach the apple tree in which it perched and see readily that it was a thrush of the Olive-back type. While I watched, it began to sing and I recognized at once the song of the Gray-cheeked Thrush, recalling the description of the song I had read. In some fifteen years of birding, I have found Olive-backed Thrushes (*Hylocichla ustulata*) singing in migration nearly every year, frequently in our yard, and am also familiar with the song of the Veery (*Hylocichla fuscescens*), a summer resident of this territory. This song resembled both, but differed from the pattern of either. It was soft—some notes almost whispered and seemingly coming from a great distance. In a few minutes the bird dropped to the ground where it sang a low song almost constantly as it fed. There were some lower, rather harsh notes, not thrush-like but more like those interspersed in the Catbird's song. I was under the impression at the time that this was probably not the song in its full glory—that it was not so inspiring as the Veery's song which it resembled the most. The bird sang in the rain as long as I remained to listen.

On May 19 I heard the second Gray-cheeked Thrush, this one, too, singing as long as I cared to listen. When I first heard the song, about six in the morning, it echoed from the stone walls of a vault in a cemetery here, giving these beautiful notes an unusual resonance. Rhododendrons surrounding the vault prevented my seeing the bird then as it sang. The song was shorter than the first bird's, had a more definite pattern, and was louder. It contained several notes similar to the beautiful 'double' flute-like notes of the Hermit Thrush (*Hylocichla guttata*), which I have heard twice during migration, and a few notes that reminded me of a Robin (*Turdus migratorius*). While the general impression was that of a song on a descending scale, yet a portion of it was not. I regret that I cannot put into words an adequate picture of the song.

The thrush ceased its song as I approached the vault, but as I remained quiet it commenced again, softer this time—more like the first bird's. This time I watched it sing through my binocular as it perched in a tree on the hill above the vault. It was still singing when I left the scene. During the entire time spent listening to the Gray-cheek, an Olive-back sang no more than sixty feet away. There seems to have been a good migration of Olive-backs through here this spring, and probably there were also more Gray-cheeks.—ROBERT E. BALL, 2622 Tuscarawas St. W., Canton, Ohio.

Cowbird behavior.—An observer in the rice fields of Texas marvels most, perhaps, at one phenomenon—the immense flocks of Cowbirds that are continually wheeling and settling over the fields. Yet of all the teeming millions, not one ever built a nest, hatched an egg, or fed a fledgling. All began life as doorstep babies cared for by many different species. The mystery is that these babies should depart from their varied rearing, and flock together with birds of their own kind. Why?

Three observations I have made suggest an answer. Several years ago I caught a young Cowbird which a male Cardinal had been feeding about the house for several days. I liberated the captive on a large screened porch, where the Cardinal paid it two or three indifferent visits, and came no more, but an adult female Cowbird began visiting the young bird. At first she would call from a flowering quince a few feet away. The spirited response of the captive to her was very different from the begging response to the foster-father. Later, she would come closer, and alight on the screen or hop along the protruding floor of the porch