

later a second lot of 49 birds was released in the same locality. And they seem to have come to stay; for we have found them apparently as common as any native bird in the districts about the low elevations known as Mount Tolmie and Mount Douglas. There we were privileged to wander through the lanes and across the meadows twice this spring, late in March and again in the present month of May. On both occasions we had no difficulty in sighting and hearing satisfactory numbers of skylarks, if satiation may be had of anything so new under the American sun and so pleasing to sense and storied memory.

The larks were there, rising from green meadows in circling flights of song; not an outpouring of clear-cut, voluble notes at Heaven's gate, as we had been led to anticipate, but an offering of trills and warbles as a bird rose to bear its song aloft and bring back another. There is nothing startling or vivid about it, but rather something of wistful cadence that is gained or lost with the shifting of the breeze or the ever changing height of the singer. We had been advised that the better view of the skylark's song flights might be had by lying on one's back in the sweet meadow grasses. This, we concluded, would be undignified, maybe unhealthy. So we listened, as did the peasant girl of the art studio offering, with mouth agape and heart athrill. Sometimes we lost the singer to vision, but never for certain the song, until the aerial vocalist dropped suddenly down to the grass again to assure his mate that he really meant it all.—THEO. H. SCHEFFER, *Puyallup, Washington, May 20, 1935.*

The Charleston Mountain Blue-fronted Jay at Castle Dome, Yuma County, Arizona.—During a week spent at Castle Dome, Yuma County, Arizona, for the purpose of collecting topotypical pocket mice for the San Diego Society of Natural History, a member of the writer's party, S. G. Harter, secured a Charleston Mountain Blue-fronted Jay (*Cyanocitta stelleri percontatrix*) on April 18, 1935. The specimen was submitted to A. J. van Rossem, who described *C. s. percontatrix* (Trans. San Diego Soc. Nat. Hist., VI, 1931, p. 328), and he identified it as of this form. The presence of this forest-inhabiting bird far from its normal habitat, in an arid, rocky, Lower Sonoran desert, is another example of individual wandering that is responsible for many unexpected records. This specimen, an adult female, is now number 17062 in the collection of the San Diego Society of Natural History.—LAURENCE M. HUEY, *San Diego Society of Natural History, Balboa Park, San Diego, California, June 17, 1935.*

Bush-tits "Shadow-boxing."—On the afternoon of March 6, 1935, I was told by my mother that two small birds had been pecking the glass of the double windows of the living room of her home in Buena Park, California. They had started in the early morning and had returned at frequent intervals during the day. I watched for a few minutes and the birds returned, proving to be Coast Bush-tits (*Psaltriparus minimus minimus*).

The lower halves of the windows are screened, but the upper halves are not, and several branches of a bignonia vine have grown across them only a few inches from the glass. These were used as perches by the birds as they pecked vigorously at their reflections in the glass. The tapping of their blows was surprisingly loud and could be heard throughout the house. Sometimes they fluttered against the glass, but usually they used the vines as perches while they delivered a rapid succession of blows at their supposed antagonists. Going outside, I found that from a distance of about fifteen feet the reflection of the birds was very clear, as the comparative darkness of the room made a mirror of the glass. From inside of the room I found that they paid no attention to my extended hand until it was within six inches of them.

The birds would retire to a lime tree a short distance from the house, feed a while, then fly to a large bignonia vine at the corner of the porch, then back to the windows and begin pecking again. Both birds engaged in the battle and I could see no difference in the intensity of their efforts. They kept it up until almost dark that evening.

The next day, and for many days, they were constant attendants at the windows. By March 21, it was noticed that most of the time only one bird came. On the afternoon of March 25, the single bird, presumably the male, came to the windows

several times and then was joined in the large bignonia vine by the mate, and copulation took place. Then they flew to the lime tree and from there to a pendant cluster of foliage at the end of a limb of a large eucalyptus tree and by doing so revealed the location of the nest which seemed to be almost completed. The nest was about eighteen feet from the ground and about one hundred feet from the windows and was well concealed in the foliage.

The single bird, and once in a while both of them, continued to give battle at the windows, but with diminishing frequency as their family cares increased. April 24, they were still feeding the young in the nest; but on May 2, the nest was found to be torn open and contained only an infertile egg. Crows were the probable depredators, but I do not know if they got the young Bush-tits or if the latter had safely left the nest. Neither parents nor young were observed at this time.

It seems worthy of note that such gregarious birds as Bush-tits should "shadow-box," and that, at first, the female should be as active in it as the male. The instinct to defend the selected territory during the nesting period must predominate over the instinct to flock together that is so conspicuous a part of the behavior of these birds during the rest of the year.—JOHN MCB. ROBERTSON, *Buena Park, California, May 5, 1935.*

Status of *Toxostoma redivivum* in the Rancho La Brea Fauna.—In connection with a comprehensive study of the skeleton in thrashers, I have had occasion to examine the cranial fragment of *Toxostoma* (no. 29515, Mus. Paleo. Univ. Calif.) doubtfully referred to *T. redivivum* by A. H. Miller (Univ. Calif. Publ., Bull. Dept. Geol. Sci. 19, 1929, p. 11).

Crania of the several species of the genus *Toxostoma* may be distinguished one from another by the position and character of the lateral ridge of the suprêmeatic process and by the consequent relative extent of the two areas which it separates—the "temporal fossa" and the suprêmeatic area. Only in *redivivum* and *dorsale* does the suprêmeatic area approximate the "temporal fossa" in width; these two species, however, may be distinguished readily by the much smaller cranium of *dorsale*. The specimen in question has the temporal region perfectly preserved on the right side, and it is indubitably of the *redivivum-dorsale* type. The brain case is sufficiently preserved to indicate its larger size, and there can be no doubt as to its identification as *redivivum*, which species thus may be assigned definitely a place in the avifauna of the Rancho La Brea Pleistocene.—WILLIAM L. ENGELS, *Museum of Vertebrate Zoology, Berkeley, California, June 20, 1935.*

Some Feeding Habits of the Western Sandpiper.—The Dumbarton bridge near Palo Alto, California, crosses the tidal flats in the southern part of San Francisco Bay. On either side of the bridge proper are long approach roads, leading across about three miles of mud flats and shallow water to the east and almost two miles of marshy ground and sloughs to the west.

On May 11 and 13, 1935, large flocks of Western Sandpipers (*Ereunetes mauri*) were seen on the asphalt pavement along the three miles of road east of the bridge (none was on the west approach road). Some of the flocks contained 200 or more birds. As the automobile approached each flock, the birds flew away together and at once returned to the road behind the car. In addition to the western sandpipers there were a few Brewer Blackbirds and Horned Larks feeding at the edge of the road or in the road. Feeding on the water were large numbers of Northern Phalaropes, and in the air were many Cliff Swallows. On June 17, about 200 Brewer Blackbirds were feeding along the road, mainly on the pavement.

The Western Sandpipers on the pavement were very active, making short runs here and there as they caught their food. We stopped to examine the pavement and found it teeming with brine flies (*Ephydra millbrae*). This is a sluggish fly which often moves only a foot or two when disturbed, and is easily captured. As no other insects were noted on the pavement it seemed certain that the sandpipers were feeding on this fly.

This conclusion was verified by stomach examinations made of two of the birds which had been killed by passing automobiles. All of the stomach contents seemed to consist of fly remains, although only a few of the flies in the stomach were sufficiently entire for certain identification. There was a thin scattering of sand mixed