

When not trapping, we scattered bread crumbs about the cabin door for birds, and very soon a little flock of juncos learned to make this a regular feeding ground. Occasionally one made so bold as to enter the kitchen, the door of which was usually open. On either side of the door, and also across the room from it twelve and a half feet away, were windows whose sills were about three feet above the floor. These windows were regularly kept closed.

An immature male junco (no. 59948), which had been banded 450 yards away on September 11, 1925, came into the kitchen on September 16 without being noticed. A quick move on my part sent the junco dashing from the middle of the floor to a window on the left of the door, where it banged the pane at full speed; then it dashed across the room with greater momentum striking against the pane of the window opposite the door and falling to the sill; then across again, bumping the window at the right of the door at full speed. Here it dropped to the floor unconscious.

When picked up, it lay on my hand as if dead. It was then laid right side up on a chair which was placed in the doorway. There it tumbled forward onto its breast with beak against the chair seat, eyes closed. Gradually labored breathing began. In about five minutes, during which we quietly watched it, it raised its head to normal position though still squatting against the chair, and a little later it flew away. Within an hour, a junco which looked like the same bird, but which was distinguished from the rest of the flock because it kept its head down close to body and feathers fluffed out as if stiff-necked, was hopping about in front of the cabin looking for food.

Again, on September 25, junco no. 91403, banded on September 12 as an immature at the same place where no. 59948 had been banded, and retaken there on the 13th and 15th, underwent the same disaster, dropping as if dead at 12:18 M. Just as with 59948, this bird rested forward on breast and beak, eyes shut, when laid on a chair. At 12:26 it had revived and had raised its head, though still squatting, and had its eyes open and it was alert to movements and noises. At 12:33 it flew off into the willows, a 75 yard flight, during which it gave a normal chirp. At 10:03 A. M. on September 26, it was again in the trap, apparently as well as ever.

It seems notable that on the only two occasions when we inadvertently frightened juncos that had entered the kitchen, they chose the window beside the door and not the door, through which passage was unobstructed, and through which many birds undisturbed entered and departed. Compare this apparent stupidity with the sophisticated composure of the young Green-tailed Towhee, recorded in a concurrent note herewith.—J. EUGENE LAW, *Altadena, California, March 25, 1926.*

**Anna Hummingbird Bathing.**—One warm summer day in 1924, a half mile north of Yountville, on the Calistoga highway, I was standing by an old windmill, when suddenly I noticed an Anna Hummingbird (*Calypte anna*) fly down onto the pump below. As the pump was old and needed repairs it was a small fountain whenever the windmill was running; and the top of the pump, forming a small basin, was covered nearly a quarter of an inch deep with water. The hummingbird entered this basin and began bathing, splashing the water in much the same manner as would a tame canary. Afterward it flew to a willow close by, and, perching on a twig, shook its feathers and began preening and drying itself in the warm sunshine. After a few minutes it flew away.—JAMES L. ORTEGA, *Yountville, California, January 27, 1926.*

**Contents of Barn Owl Pellets.**—The following material contained in 68 pellets, was picked up under the nest of a Barn Owl (*Tyto alba pratincola*) in Wildcat Canyon, near Berkeley, California. The 68 pellets held the remains of 123 meadow mice, 37 white-footed mice, 24 harvest mice, 7 pocket gophers, 6 shrews, 1 mole, 1 pocket mouse and 13 Jerusalem crickets, a total of 212 items. The pellets examined were of recent origin, less than a year old. Old decomposed pellets on the ground beneath the nest showed remains of many gophers and wood rats as well as remains of smaller rodents. The wings of a Red-shafted Flicker were found beneath the nest, but no remains of birds were found in any of the pellets. Identification of mammal remains has been checked by Joseph Dixon of the Museum of Vertebrate Zoology.—G. L. FOSTER, *Berkeley, California, October 20, 1925.*

**An Additional Subspecies of Spotted Towhee from Lower California.**—In an attempt to identify a series of spotted towhees from north-central Lower California, it became apparent to the writers that an additional subspecies would have to be named. This we now do, as follows:

*Pipilo maculatus umbraticola*, new subspecies. Cape Colnett Spotted Towhee.

*Type*.—Female adult; no. 46390, Mus. Vert. Zool.; Colnett, lat. 31°, Lower California, Mexico; October 28, 1925; collected by J. Grinnell; original no. 6638.

*Distinguishing characters*.—Differs from *Pipilo maculatus megalonyx*, to which it is nearest both geographically and in appearance, in smaller bill and darker coloration. Color differences are most apparent in females, these being decidedly slaty dorsally in *umbraticola*, as compared with the browner tinge seen in female *megalonyx*.

*Range*.—So far as at present known, an area in northwestern Lower California, on the Pacific slope west from the San Pedro Martir plateau (up to 7500 feet altitude) down to the sea-coast. Life-zone characteristically Upper Sonoran, but occurs locally within territories where the Transition or the Lower Sonoran predominates; in the latter case, restricted to steep, north-facing, and hence heavily shaded, ravine-sides. Specimens examined, 29, from the following localities: La Grulla, 7000-7500 feet; Concepcion, 6000 feet; Valladares, 2700 feet; San José, 2500 feet; San Telmo, 600 feet; Santo Domingo; San Ramon; Colnett. All collected by either Chester C. Lamb or J. Grinnell.

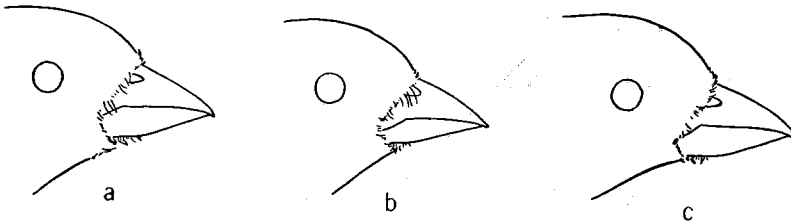


Fig. 37. BILLS OF THREE SUBSPECIES OF SPOTTED TOWHEE (*Pipilo maculatus*); NATURAL SIZE.

a. *P. m. megalonyx*, ♀ ad.; no. 36376, Mus. Vert. Zool.; Pasadena, California, September 21, 1904.

b. *P. m. umbraticola*, ♀ ad.; no. 46383, Mus. Vert. Zool.; La Grulla, San Pedro Martir Mountains, Lower California, Mexico; October 10, 1925.

c. *P. m. magnirostris*, ♂; no. 36676, coll. L. B. Bishop; El Valle, Lower California, Mexico; January 28, 1924.

*Measurements*.—Ten males measure in millimeters (average, minimum and maximum) as follows: wing, 85.2 (82.0-90.0); tail, 98.4 (94.0-100.5); culmen, 13.0 (11.5-13.5); tarsus, 28.1 (27.5-29.0); hind toe and claw, 20.9 (20.5-22.0); length of white spot on inner web of outer tail feather, 24.4 (19.5-29.0). (For measurements of related Pacific coast subspecies of *Pipilo maculatus*, see Swarth, Condor, xv, September, 1913, p. 175.)

*Remarks*.—The spotted towhees of western North America attain the extremest pallor of coloration in the Rocky Mountain and Great Basin regions, as shown in the subspecies *arcticus*, *montanus*, and *curtatus*. Westward, relatively pallid coloration persists as far as the central valleys of California, the habitat of *falcinellus*. On the extreme Pacific coast a somewhat different sort of variation occurs. The darkest race (*oregonus*), darkest in the sense that here the white markings are most restricted, occurs at the north. In this race, too, darkness is exemplified in the deeper shade of chestnut on the sides, flanks and lower tail coverts, and, in the female, in a dark brownish suffusion throughout all the blackish areas. Southward, through the range of *falcifer*, the brownish tinge is lessened and the white areas increased in size, changes which are carried still farther in *megalonyx*.

In *umbraticola* these modifications reach their extreme, the diminishing of the brown tones resulting in a blacker, slatier colored bird, particularly in the female, than *megalonyx* and *falcifer*. While *umbraticola* is thus blacker colored, there is little or no diminishing of the white areas, as compared with those races, nor is there any appreciable paling of the chestnut colored sides and lower tail coverts. The increase of black pigmentation, besides resulting in a generally more slaty tone of all the blackish body areas, shows very plainly in the wing and tail feathers, and even in the "soft parts". The bill and feet of *umbraticola* are on the average decidedly blacker than in any other of the western subspecies of *Pipilo maculatus*.

The large-billed, pale colored *magnirostris*, of the Cape region of Lower California, represents a far departure from the mode of *umbraticola*, and one which at present is not known to us to be bridged by any connecting links.

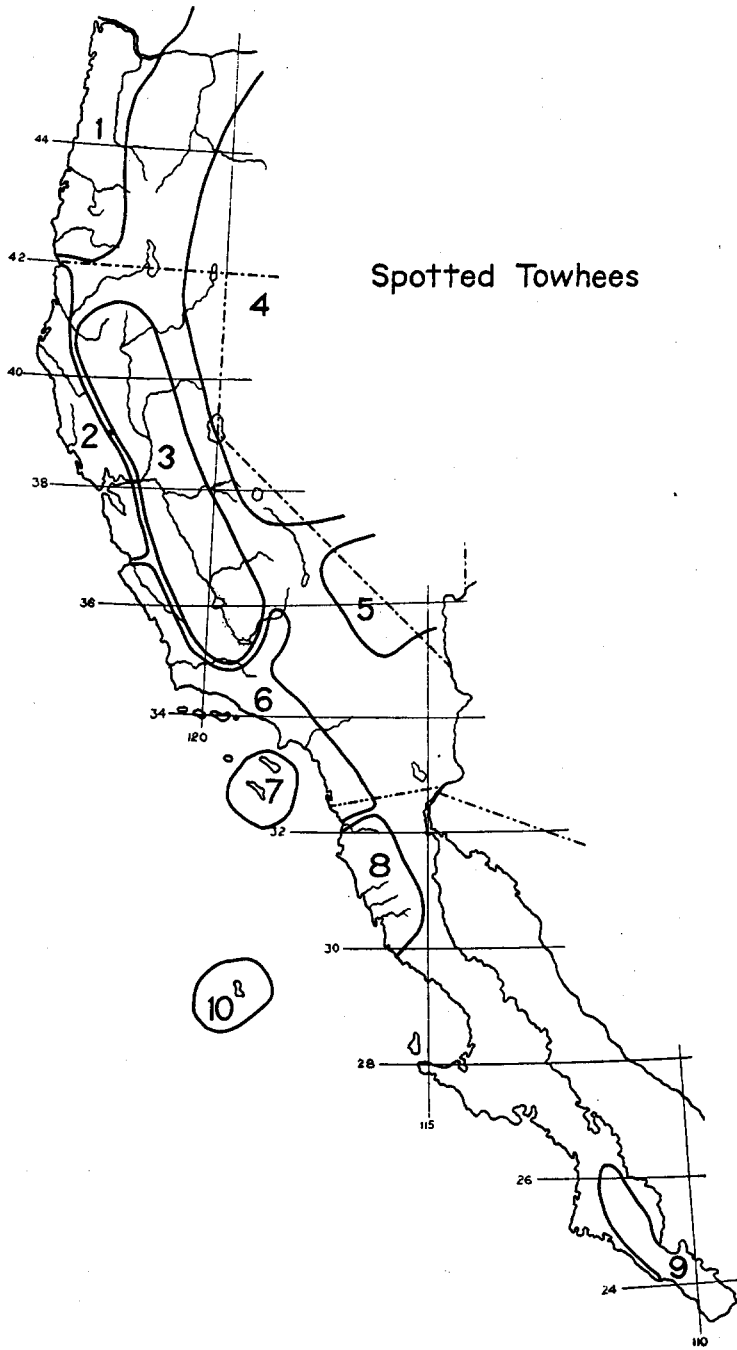


Fig. 38. MAP SHOWING DISTRIBUTION OF THE SPOTTED TOWHEES ALONG THE PACIFIC COAST. FOR NAMES OF THE SUBSPECIES, SEE TEXT.

The Pacific Coast races of *Pipilo maculatus* as now recognized by the writers stand as follows, listing them as near as it is practicable to do so from north to south. The accompanying map shows in part the approximate territory inhabited by each in the breeding season, as inferred from a study of the materials in the Museum of Vertebrate Zoology.

1. *Pipilo maculatus oregonus* Bell. Oregon Spotted Towhee.
2. *Pipilo maculatus falcifer* McGregor. San Francisco Spotted Towhee.
3. *Pipilo maculatus falcinellus* Swarth. Sacramento Spotted Towhee.
4. *Pipilo maculatus curtatus* Grinnell. Nevada Spotted Towhee.
5. *Pipilo maculatus montanus* Swarth. Rocky Mountain Spotted Towhee.
6. *Pipilo maculatus megalonyx* Baird. San Diego Spotted Towhee.
7. *Pipilo maculatus clementae* Grinnell. San Clemente Spotted Towhee.
8. *Pipilo maculatus umbraticola* Grinnell and Swarth. Cape Colnett Spotted Towhee.
9. *Pipilo maculatus magnirostris* Brewster. Large-billed Spotted Towhee.
10. *Pipilo consobrinus* Ridgway. Guadalupe Spotted Towhee.

—J. GRINNELL and H. S. SWARTH, *Museum of Vertebrate Zoology, University of California, February 22, 1926.*

**Another Straggler Reaches the Pribilofs.**—On St. George Island, Alaska, June 20, 1923, a small bird was found in a rain barrel by a resident of that island. It had been so long in the water that it would not make a good laboratory skin, but it was preserved in-the-flesh in alcohol. This specimen was recently sent for identification to the California Academy of Sciences and proved to be a Bank Swallow (*Riparia riparia*), new to the recorded list of birds of the Pribilof Islands.—JOSEPH MAILLIARD, *California Academy of Sciences, San Francisco, California, February 3, 1926.*

**Green-tailed Towhee Qualifies in Intelligence Test.**—In early August, 1925, Mrs. Law and I were occupying the Walker cabin at Bluff Lake, in the San Bernardino Mountains, California. Crumbs and nut meats, which we scattered about, soon began to assemble Green-tailed Towhees (*Oberholseria chlorura*).

The first to appear was a youngster, in juvenal garb but grown, and with it an older bird of the year, already in post-juvenal plumage. As the days passed three adults came along, one of them wearing an old band. All five became competitors for the food which we kept constantly ready for them, the adults dominating the immatures mercilessly.

All soon learned that a swinging arm meant a tossed crumb, and one or more birds invariably dashed for a thrown crumb, but never apparently tried to catch the morsel on the wing. Their sight is particularly keen and far, and even a crumb held up for inspection was at once detected by the birds from their brush cover some twenty-five feet away, and they were alert to start for the morsel the instant it was thrown. They often snatched the thrown tidbits from among chipmunks (*Eutamias speciosus*) which appeared stupidly unconscious that food had been thrown. The chipmunks soon learned, however, that we were favoring the birds and became openly jealous and chased the birds around. The latter yielded ground but that was all, and we often saw one hopping around comically just in advance of a pursuing chipmunk. Once I saw a towhee stand its ground, with lowered head, and then the chipmunk yielded.

If a crumb or kernel was too large to be swallowed entire, it was usually borne in beak to the brush cover, from whence most of the spurts began. When "chewing" such a crumb of bread, it is held at the side near the base of the beak, and the edges of the upper tomia cut off morsels into the mouth as the mandibles move rapidly. Never did we see any effort to hold a morsel with the foot.

Quite to our surprise, when we had nuts suspended on strings to test the jumping limit of the chipmunks, adult towhees, never more than one in action at a time, possibly only the same individual at all times, often jumped up and caught at the nut kernel thirteen inches from the ground, and occasionally one hung there by its beak flopping the body about, ludicrously like a fish just pulled from the water. In no case did we detect the bird actually dislodging the nut. As soon as the adults had tasted English Walnut meat, they lost their interest in bread crumbs and seemed to instantly distinguish between the two.