FROM FIELD AND STUDY

A Commensal Relation of the California Quail with the California Ground Squirrel.—While walking along the lower trail on the south side of Strawberry Canyon in the Berkeley Hills, on August 25, 1927, at 5 P. M., my attention was attracted to a commotion, some twenty yards away on the opposite side of the creek, in a fringe of tar weed *(Madia sativa)* that grew along the edge of a perpendicular bank two feet in height. I soon saw that the commotion was caused by a California Ground Squirrel *(Otospermophilus grammurus beecheyi)* pulling down the stalks of the tar weed in order to eat the seeds of that plant. Indeed, the squirrel actually climbed into the tops of some of the larger plants that were so intertwined as to form a support sufficiently strong to bear his weight. In climbing and reaching for the heads of the tar weeds that overhung the bank, a goodly number of seeds were shattered to the ground at the base of the bank. There, three California Quail *(Lophortyx californica californica)* made the most of the opportunity by eating the seeds as fast as they fell on the ground.

To me, the seeds had a not unpleasant, oily, resinous taste. During the seven minutes that I remained on watch, the animals proceeded a distance of between twelve and fifteen feet. The quail at the foot of the bank closely followed along below the squirrel. Once, the squirrel abruptly moved a distance of four feet between feeding positions. The quail followed; but whether or not the birds recognized the cause and effect involved, I do not know. Perhaps they did not even follow the squirrel but were attracted to the spot four feet distant only by the edible seeds that they perceived there. However this may have been, the phenomenon constitutes an interesting commensal relation not, in so far as I am aware, previously noted between these two species.—E. RAYMOND HALL, *Museum of Vertebrate Zoology, University of California, Berkeley, September 8, 1927.*

Western Wood Pewees and Dwarf Cowbirds Nesting in San Diego.—For several seasons past Western Wood Pewees *(Myiochanes richardsonii)* have nested in the grounds of the San Diego Zoological Gardens. In the summer of 1923, a pair of this species was observed feeding a young Dwarf Cowbird *(Molothrus ater obscurus)* just out of the nest. The young impostor would sit on a fence or low branch of a tree and beg continuously; and when one of its foster parents brought it food, it would take the proffered tidbit and fly to the ground with it before eating. This procedure annoyed the Wood Pewees greatly and they would dart down at their unnatural young one, scolding vigorously, and attempt to drive it back to its former perch. They continued to feed their wayward child, however, until the latter was fully developed and well able to care for itself.

In 1924, another Cowbird was raised by the Wood Pewees, and again the difference in feeding habits caused much friction between the young bird and its foster parents. In 1925, no observations were made, and in 1926, three young Wood Pewees were raised and successfully launched into the world. This year, 1927, a Western Wood Pewee was discovered starting its nest on a high branch of a eucalyptus tree standing in a canyon in the Zoo grounds and just back of the O'Rourke Zoological Institute, so that the nest is on the level of the first floor windows of that building. When the nest was first seen, on May 11, it was just started; and now, on the 19th, the bird is presumably laying its eggs but has not yet started steady brooding. At every trip with material the pewee would enter the nest and mold it with much turning and twisting of the body. I have never seen two pewees in the immediate vicinity of the nest, which is saddled on a bare limb and easily seen.—FRANK F. GANDER, *East San Diego, California, May 21, 1927.*

Black Bear Tries to Gnaw into a Woodpecker's Nest.—On June 26, 1927, at 6800 feet altitude, between Mono Meadows and Illilouette Creek in the Yosemite region, the writer found a nest of the Arctic Three-toed Woodpecker *(Picoides arcticus)*. This nest was located only four feet above the ground in a large live lodgepole pine. My attention was first attracted to the locality by the unusually vigorous scolding of the parent woodpeckers. A closer approach revealed the cause of the excitement.

A bear had located the nest, probably through the noise of the young woodpeckers, which were old enough to come to the nest entrance to receive food, and which squealed with anticipation of a meal every time any bird, animal or person came close to the nest tree. In an endeavor to get at the young in the nest, the bear had bitten out slabs of green wood twelve inches long, two inches wide, and one-quarter of an inch thick. The muddy stains around the inside of the nest entrance showed that the bear had thrust his nose into the hole repeatedly. But after gnawing over an area 10 x 10 inches on the tree trunk to a depth of more than an inch, the bear gave it up as a bad job. Had the nest been in an old stump, the outcome would probably have been different. This offers a reasonable explanation of the tendency of certain woodpeckers to nest in living trees.—JOSEPH DIXON, *Berkeley, California, July 27, 1927.*

Another Man-o-war-bird Wanders into Californian Waters.—The short list of records of the Man-o-war-bird *(Fregata aquila)* north of the Mexican border may warrant a note on the capture of one of these birds off San Diego, California, on June 27, 1927. The bird was shot by E. F. Gottesburen from the deck of a deep-sea fishing barge anchored off the edge of the kelp beds about a mile and a half southwest of Point Loma. Mr. Gottesburen states that the bird circled about the barge and exhibited no fear, even when his first shot failed to take effect. It was a young male in the white-headed plumage. The specimen was presented to the San Diego Society of Natural History and is now on exhibition, mounted, in its museum in Balboa Park.—CLINTON G. ABBOTT, *San Diego Society of Natural History, Balboa Park, San Diego, California, August 23, 1927.*

Analysis of Sexes in a Junco Migration.—The writers began to band Shufeldt juncos here (latitude 53° N, altitude 3000 feet), on the 7th of April of this year, or roughly four weeks before the cessation of snows which remained on the ground an appreciable time. The work was done under exceptionally favorable conditions from the bander's point of view. The season was phenomenally late and snowy, and great numbers of birds were forced to depend wholly upon us for food. Also a large equipment of trapping material was concentrated on a few acres which, owing to slope and exposure, represented the only bare ground for miles in all directions. The surroundings were, in fact, mostly heavy evergreen timber, holding its deep snow into May. Furthermore the site was on a principal (unfrozen) waterway and opposite the terminations of various important mountain passes.

The writers believe that for the first month at least hardly a junco passed unbanded, and that the records show a very complete picture of the migration, with the exception of a few very early individuals. April 7th to 9th inclusive produced only from two to five birds each. The great rush began on the 10th. The following table shows the distribution of sexes and "doubtfuls" among the 688 birds caught up to June 15. Great care has been taken to exclude all cases where any doubt was possible as to sex or subspecies.

Week	April 7-13	14-20	21-27	28-May 4	5-11
Males	100	121	82	130	26
Females	17	26	17	38	28
Doubtful	12	20	11	14	6

Week	May 12-18	19-25	26-June 1	2-8	9-15	Total
Males	15	2	2	0	0	478
Females	7	1	6	1	3	144
Doubtful	1	1	1	0	0	66

The banding fell to zero when the birds separated to breed. We found our first nest, containing four eggs, on June 15. Yet at this date, as recorded by the traps, only 144 females had arrived, as against 478 males. During the breeding season the numbers in the locality must be closely equivalent, as wandering, non-breeding birds would almost certainly be detected by feeding and trapping. No more striking illustration of the territorial theory can be imagined than the behavior of the breeding birds, which, though nesting about us with the regularity of a checker-board, cease