

## FROM FIELD AND STUDY

**An Observation of Flight Exhaustion in California Quail.**—While hunting California Quail (*Lophortyx californica*) during the winter of 1954, two companions and I were afforded a unique opportunity to observe exhaustion of the power of flight in this species. At approximately 9 a.m. on December 26, about eight miles southeast of the town of Shandon, San Luis Obispo County, California, Irving and Donald C. McMillan and I came upon a large flock of quail as they were feeding in an isolated patch of cover at a considerable distance from their more extensive and commonly used area of habitat. The weather was cold. The temperature had been slightly below freezing the night before and a light wind was blowing from the north. When approached, the flock, which appeared to number about 150 birds, rose and flew into the wind up a gradual, open slope, which was bare of any shrubbery, to another area of cover. In the course of this flight, which covered a distance of 450 steps or approximately the same number of yards, the flock gained about 100 feet in elevation.

The birds were immediately pursued and, as is the common hunting practice, bird dogs of a pointing breed were released at the spot where the covey had alighted. In this way, the dogs are used to locate birds which ordinarily hide after a flight of any considerable length but take to wing again when approached by the hunter. In this particular instance, however, the birds, when located, could not be made to fly. Some ran about and were caught and retrieved by the dogs; and others, found hiding in the low, scattered shrubs, could be picked up with the hand. Without a shot being fired, eight quail were captured within fifteen minutes and were confined in a car parked nearby.

As we had never before witnessed or known of such behavior on the part of quail, we considered the possibility of some malady as its cause. However, quail taken from this flock in the course of our hunting were examined and appeared to be in excellent physical condition. Furthermore, after a period of approximately thirty minutes, quail began to rise and fly from the hunting grounds with what appeared to be normal speed and vigor. About an hour after it was captured, one of the birds that had been confined in the car escaped and flew away with every appearance that it had regained its normal flying strength.

Apparently we had observed, from beginning to end, a flight by California Quail that temporarily exhausted their power of flight. That flight stamina was similar in all members of the flock is evidenced by the fact that all were exhausted after having flown the same distance. It was also noted that, although unable to fly, the exhausted birds could run without apparent weakness.—IAN I. McMILLAN, *Shandon, California, January 5, 1955.*

**A Southern Hemisphere Migrant in Nicaragua.**—On July 9, 1954, I obtained a specimen of the Blue and White Swallow, *Atticora (Pygochelidon) cyanoleuca*, at El Recreo, elevation about 400 feet, 10 miles west of Rama, Department of Zelaya, Nicaragua. The bird, a female, was collected from a flock that included Mangrove Swallows (*Iridoprocne albilinea*), Rough-winged Swallows (*Stelgidopteryx ruficollis*) and Gray-breasted Martins (*Progne chalybea*), all of which were feeding back and forth over a cleared field along the banks of the Río Mico. This species has not previously been reported north of Costa Rica, where the nominate race *cyanoleuca* is an abundant breeding bird. At the suggestion of Dr. Eugene Eisenmann, I checked the subspecific identity of my specimen and was surprised to find it typical of the South American form *patagonica*. It should be mentioned that this race is distinguished from *cyanoleuca* by non-overlapping characters, as discussed by Chapman (*Amer. Mus. Novit.*, 30, 1922:1-15) and de Schauensee (*Not. Naturae Acad. Nat. Sci. Phila.*, 161, 1946:9-14), and identification can be made with certainty. Dr. John T. Zimmer of the American Museum of Natural History has kindly examined the specimen and confirmed its identity.

*Atticora cyanoleuca patagonica* is one of the few New World forms known to make an extensive trans-equatorial migration during the Southern Hemisphere winter, having been recorded from northern Colombia and Panamá. The northernmost breeding locality appears to be Oruru Province in eastern Bolivia (de Schauensee, *op. cit.*). El Recreo, Nicaragua, is over 2200 miles in straight-line distance from this area, and there are probably few other records of so extensive a northward migration by a New World Southern Hemisphere land bird.

Future collecting will doubtless reveal additional northern occurrences of this form, and it may