

FROM FIELD AND STUDY

Starling-Piñon Jay Associations in Southern Colorado.—Starlings (*Sturnus vulgaris*) and Piñon Jays (*Gymnorhinus cyanocephala*) exhibit similar behavior in the sense that both species are highly gregarious, may walk and feed on the ground, and may move across the ground as a flock in a peculiar "rolling" flight. Bent noted this similarity between the two birds in his life history sketch of the Piñon Jay (U. S. Nat. Mus. Bull. 191, 1946:307): "It spends much time on the ground, where it often feeds in rolling flocks; its gait is a dignified walk or easy run, with its body more or less erect and its head held high, more like that of the starling than like the bouncing hops of the jays." Obviously this behavioral pattern developed independently in these unrelated species, representing an instance of parallel evolution.

Bent offered another pertinent comment when he observed that the Starling was "apparently fond of association with other species of similar habits" (U. S. Nat. Mus. Bull. 197, 1950:210). At the time this was written, Starlings had not to any extent penetrated the western realm of the Piñon Jays, and the statement could not be specifically applied to relations between these two species, despite a similarity of certain habits. Within the last few years, however, Starlings have become increasingly common in the Pikes Peak area of Colorado where Piñon Jays do occur. And there have indeed been several recent observations of the two species together.

On December 27, 1963, in the ponderosa pine-grassland ecotone between the Black Forest and the Great Plains about ten miles northeast of Colorado Springs we saw an integrated flock containing at least 31 Starlings and 50 Piñon Jays. Most of the birds were feeding together on the ground in the grass (mainly grama) but some were perching in the interspersed pines. The Starlings and Piñon Jays on the ground moved together in the "rolling" pattern, the back part of the mixed flock rising from the short grass and dropping back to the ground in front of the flock.

Paul Nesbit of Colorado Springs, who lives at the edge of the piñon-juniper woodland in the Garden of the Gods, reported that he had seen similar mixed flocks of Piñon Jays and Starlings around his home periodically over the past two years. The two species would associate during daylight and then apparently separate into single-species flocks at night, to recongregate the next morning.—RICHARD G. BEIDLEMAN and JAMES H. ENDERSON, *Department of Zoology, Colorado College, Colorado Springs, Colorado, January 14, 1964.*

Remarks on the South American Furnariid *Phacellodomus rufifrons*.—The Rufous-fronted Thornbird, *Phacellodomus rufifrons*, occurs throughout much of South America, in northern Argentina, Paraguay, Brazil, Perú, and Venezuela, and it has been known from one specimen taken from extreme northern Colombia (Carriker, *Novedades Colombianas*, 1, 1954:14-19). Peters (*Birds World*, 7, 1951:111-112) summarizes the range of the species, first described from southern Brazil in 1821, and recognizes six distinct subspecies.

In May of 1960, in the course of routine collecting near the pueblo of Trinidad, Departamento de Boyaca, Colombia, two birds of this species were taken in mist nets. They constitute the second and third records of the species from that country. The birds are somewhat different from the Venezuelan specimens and the single specimen from Colombia; the latter was obtained much to the north of Trinidad but in the same department near the Venezuelan border.

The pair of birds, male and female, were taken in a heavily forested stream bed similar to those found over a vast expanse of the Llanos Orientales of eastern Colombia and extending into Brazil in the Amazon drainage. It may be assumed that these rather retiring birds follow the vegetation along such waterways through the otherwise unrelieved plains or llanos; typical climax type plants here are grasses which are probably unsuited for these thornbirds.

The male had well developed testes, indicating breeding condition, and the female showed old scar tissue on the ovary and an old brood patch. The birds could represent a mated pair that were feeding young at the time of collection. No nest was found, although numerous bulky stick nests that appeared old were to be seen in the brushy areas surrounding the stream bed, which was dry at the time. These nests correspond to the description of the nest of this species by Mitchell (*Birds of South-eastern Brazil*, 1957:133).