

GENERAL NOTES

Red-crowned Ant-Tanagers, Tawny-crowned Greenlets, and forest flocks.—

While studying Red-crowned and Red-throated Ant-Tanagers (*Habia rubica* and *H. gutturalis*) in 1957 at Gallon Jug, British Honduras, I took occasional notes on their association with the flocks of small insectivorous birds that, like the chickadee-titmouse flocks of the United States, wander through the forest searching for their randomly dispersed food. Red-crowned Ant-Tanagers were more often members of the wandering flocks than were Red-throated Ant-Tanagers, partly because the latter species spent much time with the birds that followed army ants.

The following list gives the most frequent companions of *H. rubica* in the flocks from March 3 to July 1 (except as noted); it is abbreviated from a list of 67 species in a thesis (1958. "The Foraging Behavior of Ant-Tanagers in British Honduras") in the Louisiana State University Library. Each record represents a period of five minutes or more when a species foraged alongside ant-tanagers.

Species	Records	Individuals
<i>Hylophilus ochraceiceps</i>	166	322
<i>Xiphorhynchus flavigaster</i>	58	69
<i>Xenops minutus</i>	42	54
<i>Myiobius sulphureipygius</i>	41	41
<i>Microrhopias quixensis</i>	38	89
<i>Ramphocaenus rufiventris</i>	37	44
<i>Henicorhina leucosticta</i>	36	63
<i>Thryothorus maculipectus</i>	33	41
<i>Helmitheros vermivorus</i> (to April 10)	22	23
<i>Sittasomus griseicapillus</i>	22	22
<i>Mniotilta varia</i> (to April 15)	21	22
<i>Oncostoma cinereigulare</i>	20	22

Tawny-crowned Greenlets (*Hylophilus ochraceiceps*) were so often companions of ant-tanagers that I learned, when the latter stopped calling and consequently became very difficult to follow, to listen for the plaintive calls of the greenlets. Several of the above 166 records represent one to three hours of continuous association between the two species. On several occasions when ant-tanagers darted off to a territorial dispute the greenlets that had been accompanying them called *d'd'dzee-errr* and *jwai jwai jwai* rapidly, flitted their wings, and darted rapidly around. The greenlets looked everywhere until apparently the distant song of the ant-tanager dispute became audible, when they hurried off toward the commotion. Often while two male ant-tanagers warbled and chattered during a territorial dispute the lisping, nasal notes of a greenlet territorial dispute came from the nearby undergrowth. Frequently the greenlets foraged high when the ant-tanagers foraged high, and descended when the ant-tanagers did. The two species occasionally bathed and preened together, too.

Though the wandering flocks were largest in late February and late July, they were larger and more frequent during the intervening main nesting period than are chickadee-titmouse flocks of northern latitudes during nesting. Several factors might cause such a difference. Many flock members in the tropics have large territories, which would allow individuals to follow one another for long distances before one came to the edge of its territory and had to turn back. Moreover, many pairs could join each other at one spot

in the tropical forest because many species are present. It is likely that many tropical birds seldom interrupt flock-following to visit their nests. Certainly ant-tanagers of both species made few visits to their nests per hour (2 or 3 while feeding young), and it is well known that the size of tropical broods is generally smaller than that of northern broods (e.g., Lack, 1947. *Ibis*, 89:302-352). There may also be more nonterritorial species, more nonbreeding vagrants, and more nonbreeding immatures in tropical than in temperate forests. Some ant-tanager pairs were accompanied by one to three first-year birds, some greenlet territorial groups were trios rather than pairs, and many Dot-winged Antwren (*Microrhopias quixensis*) groups were larger than three birds.

Red-crowned Ant-Tanagers occasionally left a flock, visited their nests or engaged in territorial disputes or other activities for varying lengths of time, and later returned. At times one ant-tanager pair was replaced by a second after a territorial dispute when the flock crossed the ant-tanagers' territorial boundary. A wandering flock containing such birds as ant-tanagers must constantly vary in its composition.

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Encounters between Barn Swallows and a Mockingbird.—On two occasions during June, 1958, I observed repeated attacks by Barn Swallows (*Hirundo rustica*) upon a Mockingbird (*Mimus polyglottos*). My home in Bethesda, Maryland, backs on a large golf course where Barn Swallows fly back and forth catching food, and where Mockingbirds nest in the bordering shrubs. (I know of no nesting site of the Barn Swallow within a half mile.) It is only when it is raining that the two species meet, for the swallows sit out the rain preening on a telephone wire which is within the territory of a nesting pair of Mockingbirds.

On June 25 my attention was drawn to several swallows which were making repeated dives on a lone Mockingbird sitting on the wire. I do not know which species arrived first. The Mockingbird attempted to thwart the attacks by directing a head-forward thrust at each diving swallow, and by snapping its bill violently. This action continued for several minutes, during which it appeared that the swallows never actually hit the mocker in their dives.

A similar encounter took place the following day. On this occasion swallows were sitting together on the same wire when a Mockingbird flew to a spot about 5 feet farther along, a place which it had used as a song post throughout the breeding season. The swallows left the wire, chattering, and began diving at the larger bird as before. This time the attack was well-coordinated, the seven swallows diving alternately, one from the east side of the wire, the next from the west. This forced the Mockingbird to turn completely around after each dive in order to thwart the next. Its defense was the same as before, and after several minutes of attacking, the swallows left to join others on a wire about 100 feet away. On other occasions I have observed Barn Swallows peacefully sharing the same telephone line with various species, at least seven in all, without the slightest sign of conflict.

These events bear a striking similarity to those described by Cross (1950. *Wilson Bull.*, 62:39). He observed five Barn Swallows making repeated diving attacks on a Loggerhead Shrike (*Lanius ludovicianus*) perched on a wire. Since it was well past nesting