

## FROM FIELD AND STUDY

**Allopreening in the Gray-barred Wren.**—Shortly after dawn on May 16, 1964, in Desierto de los Leones National Park, near México, D.F., Elliott heard the harsh chatter of wrens coming from a live oak. Sounds of a violent squabble issued from the foliage and a Gray-barred Wren (*Campylorhynchus megalopterus*) flew from the tree with another pursuing it closely. A third bird remained in the tree. A moment later a wren joined this third individual, flying in from the direction in which the first two had flown; presumably the newcomer was one of the birds that had participated in the chase. The returning bird (A) and the bird that had remained in the tree (B) then moved to a limb near the trunk.

A gave a series of rapidly delivered, harsh, chattering notes lasting two or three seconds, and B immediately crouched across the limb, dropping its tail almost perpendicular to its body and pointing its bill down at an angle of about 45°. B then fluffed its dorsal plumage and bird A began to peck and nibble at B's feathers, working from the nape down to the upper tail coverts. B remained motionless while this went on. After less than a minute, B gave a series of very low whisper notes, whereupon bird A at once jerked into an upright position, tarsi fully extended, tail depressed and fully spread, and bill pointed almost vertically upward. B, remaining crouched, sidled along the limb, very slowly raised its head, and probed very gently into bird A's fluffed out throat feathers. Neither individual made any sound. After perhaps 15 or 20 seconds the birds broke away and began to forage. A short time later a third wren, possibly the third member of the original trio, appeared and another chase ensued. Bird B again remained in the tree until the others were far down canyon and then moved to another tree. Upon the return of what was assumed to be bird A, the previous behavioral sequence was repeated without any noticeable variation.

Davis, observing at Puerto Garnica, 9200 feet elevation, in east-central Michoacán, on March 7, 1961, noted a Gray-barred Wren fly to a limb and perch quietly. After a few seconds another wren flew to the same limb and landed about two feet from the first. The newcomer moved next to the first bird and repeatedly poked its bill into the rump feathers of that bird. This went on for perhaps 30 seconds, after which the first bird flew.

In neither case was any bird seen to swallow anything. It seems likely that in the case of the birds observed by Elliott, bird A was a male and bird B a female, and that in the case observed by Davis, the active bird was a male and the passive bird a female. In both cases, pair reinforcement behavior of some sort was probably involved, elicited in the first case by the return of the presumed male after successfully driving off an intruder. Skutch (Pac. Coast Avif. No. 34, 1960:188-189), in his account of the Banded-backed Wren (*C. zonatus*), notes that two birds may indulge in mutual preening and possibly in removal of vermin. However, this type of behavior is evidently rare in the genus *Campylorhynchus*.

The occurrence of the behavior which we observed in *megalopterus*, and of the mutual preening observed in *zonatus* by Skutch, is of interest since Selander (Univ. Calif. Publ. Zool., 74, 1964:181-182) notes that *C. zonatus*, *C. megalopterus*, and *C. fasciatus* "are closely similar morphologically and in many aspects of ecology and behavior." And further, that "there is some possibility that [*C. m.*] *nelsoni* is specifically distinct from [*C. m.*] *megalopterus*, which may be more closely allied to *C. zonatus* than to *nelsoni*." Since our observations pertain to typical *megalopterus*, they may constitute further behavioral evidence for the close relationship of that form and *zonatus*.—BRUCE G. ELLIOTT, *The American Embassy, México, D.F.*, and JOHN DAVIS, *Hastings Reservation, University of California, Carmel Valley, California, December 23, 1964.* (Present address of B. G. Elliott: *Silver City, New Mexico.*)

**Notes on Behavioral Responses of the Blue-throated Hummingbird.**—In August, 1964, I observed postbreeding Blue-throated Hummingbirds (*Lampornis clemenciae*) both at hummingbird feeders and in natural situations along Cave Creek, in the Chiricahua Mountains, south of Portal, Cochise County, Arizona. Although hummingbird feeders are artificial feeding sites at which large numbers of hummingbirds tend to congregate, the feeders can be regarded as analogous to patches of wild flowers and agave blossoms, which are natural sources of food.