

**Courtship Display and Copulation Observed
in a Pair of Philippine Hanging Parrots
(*Loriculus philippensis philippensis*)**

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While making a survey of the psittacine birds in the Philippine Islands, I observed mating by the Philippine Hanging Parrot (*Loriculus philippensis philippensis*). I observed a single pair of parrots at 1720 on 12 January 1978, while I was hiking through the Zambales Mountains of Luzon. The birds were flying about a wild fig tree approximately 24 m tall, feeding about 12 m from the ground as they moved from branch to branch. At 1820 the parrots hung upside down from a branch and started mutually preening each other, apparently after completing courtship feeding.

Following the mutual preening, the pair remained upside down, and the male began a courtsey by moving back and forth across the perch. The male was on the left side, was more aggressive, and displayed his feathers in a courtship manner (fantailed and ruffled appearance). He then moved his tail to the left side and placed his feet behind that of the female on the perch. Several times the male lifted his left or right wing, outstretching it to cover the female as if the wings were a type of canopy. The female fluffed her feathers and moved closer to the male. With a few jerking movements the male was able to come into contact with the female, and copulation took place. Following copulation, the female emitted a loud and harsh squeak. The whole act lasted approximately 2 min while both parrots were upside down. After copulation was completed, both parrots shook their feathers as if they had just finished dust bathing and flew off to another branch, where they remained huddled together in an upright position. Both birds appeared content and unwilling to continue courtship feeding as before mating took place. The pair of Philippine Hanging Parrots did not join other birds of the same species in nearby trees but appeared to be preparing for sleep. The birds remained in an upright position and did not turn upside down to sleep as most hanging parrots normally do. Shortly thereafter, it was too dark to view the birds any longer.

Buckley (1968, Ibis 110: 147) states that the first visible sign of any pairing activity is courtship feeding, which seems to be a major factor in maintaining the pair bond. A female that accepts food from a male will also allow him to sit or hang close to her; eventually, the male will chase all other birds away from the female, and the two will remain near and follow each other much of the time (ibid.). Adult hanging parrots occasionally rest in an upright position but usually only after preening.

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Autumn Selection of Breeding Location by Field Sparrows

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Young migratory birds of temperate regions might select habitat and site during explorations more or less continuous with territorial establishment in the spring. This seems to have been an assumption of many earlier discussions (e.g. Hildén 1965, Wiens 1969). Alternatively, young birds may search for suitable habitat and sites in the late summer or early autumn, after they have become independent (Brewer and Harrison 1975). Many older birds, of course, tend to return to areas where they nested the previous year (Nice 1937, Haartman 1949). Direct evidence of the actions of the young is scarce. Here, we give indirect evidence supporting the idea that breeding locations of Field Sparrows (*Spizella pusilla*) are selected prior to their autumn departure.

Large-scale, routine banding has been conducted at the Kalamazoo Nature Center (KNC) in the autumn (mid-August to early November) of each year since 1970. A small amount of spring and winter banding is practiced. In the autumns of 1970–1979, 475 Field Sparrows were banded. Mist nets were