

Courtship and copulation by a hand-reared Broad-winged Hawk.—In July of 1967 Frances Hamerstrom and Frank Renn obtained for me a Broad-winged Hawk (*Buteo platypterus*) about 2 weeks old from a nest in Portage County, Wisconsin. The bird was hand-reared, kept in my laboratory, and used in prey selection and motivation experiments. In late May 1969 the bird began to exhibit a strange behavior toward me whenever I entered the laboratory. It soon became apparent that this was courtship behavior, and when I presented my hand and forearm in a horizontal position the bird attempted copulation. Courtship in this tethered bird consisted of assuming a near horizontal posture (head about 20° higher than the tail), dropping the head to an angle of about 30° below the horizontal, raising the feathers of the back, flattening and spreading the breast feathers so that they projected about 5 cm laterally beyond the tucked-in wings, and lowering and spreading the tail. The bird paced about, calling constantly and stopping frequently, usually while facing me. The call was a short and emphatic “whee-oh!” similar to that described by L. O. Shelley (*in* Bent, U. S. Natl. Mus., Bull. 167, 1937, p. 239). The call was quite different from all other notes I have heard my captive Broad-winged Hawks utter. When I presented my forearm to the bird it fluttered upon it in a manner quite different from its characteristic jump when I removed it from the perch at other times. The bird landed gingerly with the toes completely flexed (“balled into fists”), resting its weight upon the entire length of the tarsometatarsus. Flapping its wings slowly and constantly and keeping them well above the plane of the body, it then lowered its tail under my hand or arm. The attempts at copulation were never completed because the bird invariably fell off my arm. It is interesting that the feet and talons were not used in gripping during this awkward procedure. I suggest that this behavior has evolved in this species, and perhaps in all Falconiformes, as an adaptation to prevent the male from injuring or killing the female during the excitement of copulation. Of published accounts that I have seen, only the description of copulation in the Sparrow Hawk (*Falco sparverius*) by Willoughby and Cade (*Living Bird*, 3: 85, 1964) is sufficiently detailed to determine the position of the toes, and in this species the toes are also flexed when the male mounts the female. As this behavior occurs in both a falcon and a buteo, it would be most interesting to see whether it occurs in all Falconiformes, especially the Cathartidae and Sagittariidae.—HELMUT C. MUELLER, *Department of Zoology, University of North Carolina, Chapel Hill, North Carolina 27514.*

Notes on the Snail Kite in Surinam.—In the coastal plain of Surinam the Snail Kite (*Rostrhamus sociabilis*) is the most numerous hawk wherever freshwater marshes occur. The cultivation of rice, which inundates large areas during part of the year, has undoubtedly expanded its feeding grounds. When the rice is growing the birds concentrate along the many trenches in the fields. The raising of sugar cane, as it is grown in Surinam, has the same result because after a field has been cultivated for a number of years, it is burnt over, ploughed, and inundated. Vegetation grows up rapidly in these large artificial lagoons, and they are frequented by large numbers of feeding kites until the water is let out after a year or two and the field is replanted. These artificial lagoons provide no cover for nesting, but the kites sometimes nest in neglected canefields that are overgrown with rushes and bushes.

Flocks of kites are present all through the year in these places. The great marsh bordering the plantation Ma Retraite near Paramaribo always supports a number of them, and during periods of drought they frequent the trenches in the plantation,