

- SUTTON, G. M. AND O. S. PETTINGILL, JR. 1942. Birds of the Gomez Farias region, southwestern Tamaulipas. *Auk* 59:1-34.
- WETMORE, A. 1968. The birds of the Republic of Panama. Part 2. Smithsonian Misc. Coll. Vol. 150.

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**A case of polygyny in the Wood Thrush.**—Harem polygyny is rare among North American passerines as a regular breeding strategy, but it is not unusual as a facultative or opportunistic strategy (Ford, *Current Ornithology* 1:329-356, 1983). A single case observed during a long-term study of a color-banded population of Wood Thrushes (*Hylocichla mustelina*) indicates that this species may be listed among those rarely practicing harem polygyny.

From 1974-1990, Roth and co-workers observed 157 male Wood Thrushes (311 bird-years) and 719 nests in a Delaware woodlot (unpubl. data; see Johnson et al., *Condor* 92: 89-96, 1990 for site description and methods). At 30% of the nests, the male owner was identified positively, i.e., seen feeding the young or guarding the nest. We could clearly associate an identifiable male with most other nests, using capture data or observations of singing or scolding nearby. We cannot be certain that undetected harem polygyny has not occurred, but only this one case has been confirmed.

In 1990, we observed a male (Y) and a female (X1) nesting for their second year on our study site. Both had been mated monogamously in 1989. A predator destroyed the pair's first nest on 16 May 1990. X1 laid three eggs in a new nest 23-25 May; two young fledged 18 June. Y was identified as the male owner when Johnson saw him perched on this nest 3 June. A secondary female, X2, was initially seen by Bartlett on 31 May building a nest about 50 m from X1's. Y was netted 6 June within 25 m of X2's nest, but no male owner was confirmed there until Johnson saw Y feeding the nestlings on 20 June. The next day Bartlett observed Y again feeding X2's nestlings, and Bartlett and Johnson simultaneously saw him feeding one of X1's fledglings less than 1 m from X2's nest. Y was captured and given a new color-band combination on 22 June. On 25 June, Kleiner saw him feeding the nestlings at X2's nest, and Johnson saw him feeding a fledgling from X1's nest about 20 m from X2's nest.

One young fledged from X2's nest on 28 June. Johnson saw X2 foraging in the company of Y on 11 July. Another nest, built in early July near her first nest, probably was hers also. It failed 18 July, and X2 was not seen again. X1 built another nest in late June, and three young fledged from it 25 July, having been fed in the nest by Y.

Ford (op. cit.) suggested cases of harem polygyny in normally monogamous species may arise when a mated male acquires the territory and mate of a vanished neighbor. Such was not the case here; no other territorial male was in the area of X2's nests. Among regularly polygynous species, factors associated with polygyny include high male density with variation in territory quality (Verner, *Evolution* 18:252-261, 1964) and variation in male quality (Weatherhead and Robertson, *Am. Nat.* 113:201-208, 1979). We cannot judge which of these was important here; in 1990 male density at the site was at its highest level since 1977 (Roth and Johnson, in prep.), but we did not assess territory quality or male quality. Y's territory was in an area used annually by Wood Thrushes but was not clearly unusual. Y

did have relatively high reproductive success: only eight of the 28 other males on the site had equal or greater fledgling production.

The primary female, X1, did not noticeably suffer as a result of the secondary mating: only eight of the 29 other females produced more fledglings than she. X2's one fledgling exceeded only four others. Observers at X2's nest noted that Y fed those young very infrequently. This may have contributed to X2's poor success and may indicate one reason Wood Thrush females do not mate polygynously more often.

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**Double-toothed Kites following tamarins.**—There are several reports of birds using ants, other birds, and mammals as “beaters” that move through the vegetation flushing prey (Curio 1976). In the Neotropics, birds are frequently observed following groups of primates, mainly of squirrel monkeys (*Saimiri* sp.) and capuchins (*Cebus* sp.) (Moynihan 1970, Klein and Klein 1973, Fontaine 1980, Terborgh 1983, Boinski and Scott 1988).

Here I report on Double-toothed Kites (*Harpagus bidentatus*) following a group of pied bare-face tamarins (*Saguinus bicolor bicolor*, Callitrichidae) observed during an 11-month field study on the ecology of this primate (Egler 1986) in a disturbed forest near Manaus, Amazonas State, Brazil.

The Double-toothed Kite occurs from southern Mexico to eastern Bolivia and southeastern Brazil (Brown and Amadon 1968, Sick 1985). It preys mainly upon large arthropods, frogs, lizards, and bats (Schubart et al. 1965, Brown and Amadon 1968, Ridgely 1976, Fontaine 1980, Wetmore 1981, Boinski and Timm 1985, Boinski and Scott 1988).

Observations were made from May 1983 to April 1984, except for October 1983, in a 20-ha study area on the left bank of the Rio Negro near the mouth of Tarumã-açu stream (3°8'S; 60°2'W, elev. 40 m). A trail system divided the area into 50 × 50-m quadrats (Egler 1986). Tamarins were studied during 46 observation days (06:00–17:00 h) with a mean of four days per month. Instantaneous scan sampling (Altmann 1974, Clutton-Brock 1974) was used with five-minute intervals to quantify tamarin behavior. I divided tamarin behavior into four categories: (1) resting, (2) traveling, (3) feeding on plant material, and (4) foraging for animal prey. The presence of Double-toothed Kites was recorded only when observed simultaneously with tamarins. Durations of following periods were calculated by summing the five-minute intervals during which kites were observed following tamarins. When subsequent observations were within 25 min of each other, intervals between observations were also included in the calculations below. On these occasions (e.g., when tamarins were resting), it was difficult to observe the kites within the foliage, but with further movements by the tamarins, they became visible again. Distances travelled by kites were calculated by running a curvimeter on tamarin routes drawn on a map of the study area (scale 1:2500). Eleven observations of only one five-min. interval were excluded because I could not determine a distance during these observations.