A possible reason for mimicry of a bird-eating hawk by an insect-eating kite.—Amadon (1961, Condor 62: 178) and others have noted that plumages of adult and immature Rufous-thighed Kites (*Harpagus diodon*) of eastern South America are like those of adults of the wide-ranging neotropical Bicolored Hawk (*Accipiter bicolor*), a bird eater. Salvin and Wallace (see Newton 1896, A dictionary of birds, p. 574) suggested that the hawk mimics the kite so as to avoid recognition by potential prey, much as I later suggested (Willis 1963, Condor 65: 313) that the Zone-tailed Hawk (*Buteo albonotatus*) mimicked the Turkey Vulture (*Cathartes aura*). Amadon pointed out, however, that the older suggestion was unlikely: the Bicolored Hawk is much more widespread than the kite (mimics usually have smaller distributions than their models, being restricted to zones where models are common), and immatures of the hawk in some areas do not look like immature kites even where the species occur together. He noted that the direction of mimicry could be the opposite one, perhaps protection for the kite or its nest from predators.

After years of watching for the kite during work in moist Amazonian forests, I found one as I checked dry forests for antbirds just north of Colinas, Maranhão (6° S, 44° 16′ W) on 26 October 1974. The hum of cicadas in the hot scrubland was suddenly interrupted as the kite pounced on one in the leafy but open top of a flowering tree spared by cut-and-burn farmers. The movement of the kite attracted not only my attention but that of several small tanagers (*Nemosia pileata*, *Hemithraupis guira*), which started to call at it and flit about through the foliage. An abrupt flutter by the kite in their direction scattered and silenced the mob of small birds. The cicadas nearby soon resumed songs.

Perhaps, therefore, a cicada-eating kite that works mostly in open woodland has evolved the plumage of a dangerous hawk as an aid in scaring away small birds that pester it or disturb its prey? More information is needed, for aside from the observation related here, little is known of the Rufous-thighed Kite beyond the data shown by museum specimens, a report that it eats insects, and a description of its nest and eggs (see Brown and Amadon 1968, Eagles, hawks and falcons of the world, vol. 1, New York, McGraw-Hill, pp. 242–243). I can add a few observations in support of the theory. First, the range of *H. diodon* seems centered in mesic forests of eastern South America. Second, I have often encountered the similarly foraging Double-toothed Kite (*Harpagus bidentatus*) inside the cover of moist neotropical forests; *H. diodon* is unlikely to be inside dense forests competing with its more widely distributed congener.

Double-toothed Kites are seldom mobbed, partly because in dense forest birds cannot see them at any distance. They often follow active monkey troops, catching flushed insects under a zone of waving branches that makes them difficult to detect. Also, forest interior birds usually do not mob hawks, even relatively harmless ones; probably the danger is relatively great for birds that have low reproductive rates. Double-toothed Kites do somewhat resemble accipitrine hawks, however, and do scare off small birds.

Such open-country and thicket birds as Thraupidae and other nine-primaried oscines mob actively and are attracted by squeaking noises. If Rufous-thighed Kites are like Double-toothed Kites in commonly hunting such alert prey as cicadas or lizards, mobbing by small birds would more quickly alert prey of the first species.

The argument also depends upon the geographical range, habitat, habits, and abundance of the proposed model. The hawk's range completely includes that of the kite; the former occurs chiefly in forest edge and woodland, but is seemingly rare in most places.

Rareness of a dangerous hawk may add to the effectiveness of its appearance in

inducing alarm; W. Schleidt (1961, Z. Tierpsychol 18: 534) has shown that alarm reactions are even greater to a "goose" model than to a "hawk" model when the goose model is more rarely used. I have one direct observation bearing on this matter. Barred Forest-Falcons (*Micrastur ruficollis*) commonly follow army ants and elicit some scolding but quick returns from small birds, for these forest falcons, although sometimes attacking birds, generally eat insects. In contrast, one Bicolored Hawk that swooped through a group of ant-following birds at Belém, Pará, completely terrified them. Birds hid under logs and froze in dense bushes or the edges of a tidal channel the habitat was tidally flooded woodland or varzea, an edge habitat where this hawk is commoner than within forest); there was not a sound or movement for several minutes after I chased the hawk away. Thus it may be that the hawklike appearance of the kite is enough to scare mobbing birds quickly, especially if it reinforces the image with a quick rush at them.

I appreciate the support of the National Science Foundation (GB-32921) for studies in the Amazon and of the National Geographic Society for studies in northeastern Brazil. Dean Amadon and Eugene Eisenmann suggested useful changes in the manuscript.—EDWIN O. WILLIS, *Instituto de Biologia, UNICAMP, Caixa Postal No. 1170, 13.100 Campinas, São Paulo, Brazil.* Accepted 19 Jun. 75.

Use of gravel by Purple Martins.—On many occasions during April, May, and June 1975, Sam D. Wolfe and I watched Purple Martins (*Progne subis*) alighting on a paved asphalt road within the city of Sherman, Texas, where they gathered and swallowed small bits of gravel and slivers of glass. The site was a relatively quiet street with little traffic. The birds, while on the ground, were quite fearless and approachable. They apparently relished the gravel and repeatedly returned after being disturbed. Both male and female martins engaged in this activity. Several martin houses were nearby.

I have never seen martins display similar behavior elsewhere in the city, although I have watched numerous colonies as part of my martin studies, nor have I been able to find any published reports in the literature of Purple Martins using gravel in such fashion. The martin's fondness for eggshells is well documented, and these may be important mineral resources for the birds. I suggest that small bits of gravel are helpful to Purple Martins, as for many other birds, in digesting hard-shelled insects.—CHARLES R. BROWN, *2601 Turtle Creek Drive, Sherman, Texas 75090.* Accepted 27 Jun. 75.

Nesting Bald Eagles attack researcher.—Because of the large and relatively stable Bald Eagle (*Haliaeetus leucocephalus*) population on Kodiak Island, Alaska, studies on nesting, productivity, and other aspects of the species' life history have been a part of a continuing research program on the Kodiak National Wildlife Refuge (Hensel and Troyer 1964, Condor 66: 282; Troyer and Hensel 1965, Auk 82: 636). One of my duties as wildlife aide during the summers of 1967 and 1968 was climbing into eyries, most of them in large cottonwoods, to band 5- to 7-week-old eaglets and to collect food habits data. I wrote the following account from field notes recorded at the time of the incident.

On 20 July 1968 my approach to the Karluk Weir nest to check for food remains caused both adults to take wing as is usual when disturbed; however, they remained silent and flew rather close. Starting to ascend the tree on previously driven spikes, I was about 2 m off the ground when I felt a blow against my lower back similar to