the fledgling from the vicinity of the nest on 10 occasions, a behavior not seen in other parent-fledgling groups. Aggression towards the fledgling stopped after the second nest was preyed upon early in the nestling stage, although parents were not seen to resume feeding of the fledgling (28+ days after fledging). Thus, the reduction in parental care to the fledgling included a low rate of feeding and aggression by the male parent. The response of the male parent could have resulted in injury to the fledgling and at least lowered the amount of protection from predators given to the fledgling.

A female's decision whether or not to start a second brood immediately after the first brood fledges should be governed by the probability of rearing young from the second brood compared to the probability of decreasing the first brood's chances of survival. A comparison of first nests with later renesting attempts for 170 kingbird nests found in 1977, 1979 and 1980 indicated that renests had significantly smaller clutch-sizes (3.13 vs 3.74) and nestling growth rate constants (K of 0.426 vs 0.498, see Ricklefs, Ecology 48:978–983, 1967). In addition, the percent of nests from which young fledged (24.2% vs 54.8%), and the number of young fledged per successful nest (2.25 vs 2.88) were lower for renests vs first attempts. These data indicate that adults have a more difficult time supplying food to their young later in the season and that predation may be higher at this time. Therefore, the advantage gained by attempting a second brood is unlikely to offset the probability of decreased survival for the first brood. It is worth noting that of 68 pairs with successful first broods during 1977, 1979 and 1980, five others fledged only a single young; none of these attempted a second brood.—PETER J. BLANCHER AND RALEIGH J. ROBERTSON, *Dept. Biology, Queen's Univ., Kingston, Ontario K7L 3N6, Canada.* *Accepted 13 May 1981.*

Wilson Bull., 94(2), 1982, p. 213

Male Cooper's Hawk breeds in juvenal plumage.—During the summer of 1980 Rosenfield conducted a survey of nesting Cooper's Hawks (*Accipiter cooperi*) in Wisconsin as part of a cooperative study with the Wisconsin Dept. of Natural Resources and the U.S. Fish and Wildlife Service. One objective was to trap and band nesting adults.

On 24 June 1980, while attempting to trap breeding adult Cooper's Hawks in southwestern Dane County, a male in juvenal plumage flew to the nest carrying prey. It dropped the food and flew off, but subsequently returned and was caught. The yearling's eye was a light orange; only five primaries and two rectrices were of adult plumage. The female (not caught) was in adult plumage. There were five young, about 1 week old, in the nest. The nest was deserted by 11 July. We found the remains of two young near the base of the nest tree. The cause of nesting failure was unknown.

Rosenfield observed 20 breeding Cooper's Hawks (12 females, 8 males) at 14 nests; only the above-mentioned male was in juvenal plumage. Meng (Ph.D. diss., Cornell Univ., 1951:47) reported 2 of 36 and Reynolds and Wight (Wilson Bull. 90:192, 1978) reported 2 of 34 Cooper's Hawk pairs with females in immature plumage, but reported no known nesting immature males. Kline (J. California Hawking Club 5:17, 1975) reported a nesting male Cooper's Hawk in juvenal plumage, paired with a juvenile female, in California. His account and this note are, to the best of our knowledge, the only records of such an occurrence.

We would like to thank R. Anderson and W. Smith for their support of this study and F. and F. Hamerstrom, and H. Mueller for reviewing this note.—ROBERT N. ROSENFIELD, *College of Natural Resources, Univ. Wisconsin-Stevens Point, Stevens Point, Wisconsin 54481* AND JONATHAN WILDE, *Rte. 1, Box 69, Belleville, Wisconsin 53508.* *Accepted 15 June 1981.*

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Unusual feeding behavior by a population of Black Vultures.—Vultures are usually characterized as carrion feeders. Black Vultures (*Coragyps atratus*) are often referred to by the vernacular name "carrion crow" (Townsend, U.S. Natl. Mus. Bull. 167, 1937). There are, however, numerous reports in the literature indicating that it is not unusual for vultures to use other foods, including vegetable matter. For example, the Vulturine Fish Eagle or Palm Nut Vulture (*Gypohierax angolensis*) is primarily vegetarian, subsisting mainly on oil palm (*Elaeis guineensis*) fruits (Brown and Amadon, Eagles, Hawks and Falcons of the World, 1968; Brown, African Birds of Prey, 1971). Crafts (Wilson Bull. 80(3):327–328, 1968) observed Turkey Vultures (*Cathartes aura*) feeding on coconut and Green (Bird-Lore 29:117–118, 1927) reported this species eating pumpkin. Haverschmidt (Condor 49(5):210, 1947; Birds of Surinam, 1968) mentions that Black Vultures feed on oil palm fruits and copra in addition to offal.

However, except in the case of the Vulturine Fish Eagle, each of these reports implied that vegetable matter is incidental to the normal carrion diet. Both Crafts (1968) and Green (1927) emphasized that vegetable matter was not a preferred food and was probably taken only because of a lack of carrion. We have observed an instance in which a population of Black Vultures may have developed a preference for vegetable matter over carrion.

The plantation "La Arenosa" is located near the town of Turbo in northwestern Colombia. About half of the 200 ha-plantation is devoted to African oil palm. Vultures were feeding on harvested oil palm fruits to a degree sufficient to alarm the plantation operators. Racemes of fruit are harvested from the palms throughout the year, and piled on platforms at various points along roadways throughout the plantation. They remain there for a short time (up to a day) awaiting transport to the oil extraction plant. Vultures congregate at these platforms in groups of 10–50 and feed on the small (4 cm) fruits, generally removing the soft husk and discarding the nuts. Though we observed some birds feeding in the trees, this behavior was not common; most feeding was at the platforms, primarily during the morning and evening hours, and according to the plantation manager, occurred year-round. Vultures are protected by law in Colombia, hence we did not attempt to collect any. We did examine 10 birds killed and brought to us by workers (presumably on orders of the manager). We visually estimated the crop content to be 95% or more oil palm fruit and the remainder unidentified material. On the basis of the estimated number of birds in the population (about 500) and the weight of fruit in the crops, we calculated a potential daily loss of $150–200 (U.S.), a substantial loss over a year's time. Although the sample was probably biased (i.e., birds killed while feeding on the palm fruit), this does not detract from the significance of the economic impact.

Carrion was not readily available on the plantation, and among various remedies tried was deliberate placement of four livestock carcasses on the plantation. These were left in place for over a week. During this time they were completely ignored by the vultures who continued feeding on oil palm racemes. This, plus the fact that carrion was available on lands surrounding the plantation, suggests that the vultures may have developed a preference for the oil palm fruit. The Vulturine Fish Eagle reportedly will reject meat in favor of oil palm husk. Oil palm fruit is rich in carotene (a precursor of Vitamin A) but the suggestion that the need for this vitamin is the basis for the food preference of the fish eagle is unfounded; apparently oil palm nuts are a favorite food (Brown and Amadon 1968). Oil palm is a relatively recent crop in this area of Colombia and it may be that Black Vultures simply prefer it to carrion when they have a choice.

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