

(*Asio flammeus*). In shape and silhouette, however, it was very reminiscent of a Marsh Hawk (*Circus cyaneus*). The bird was a Cooper's Hawk (*Accipiter cooperii*) and in the three years following this event I have seen a repetition of this peculiar flight performance at least 17 times.

Since I spend two months during each of the spring and fall seasons at the Station I am in an excellent position to notice such phenomena during the course of our routine observation and banding of migrating hawks. Indeed, all but one of the above observations were of migrating birds at Cedar Grove, whereas the last hawk was seen in Portage County, Wisconsin, by Mr. Alan Hamerstrom, Mr. Lorenz Kramer and myself. This bird also was considered to be a migrant.

All 18 of these observations were made in a total of six days, with the most occurrences on a single day being nine. It is quite likely that in all cases different individuals were involved. Only one of these birds was seen "Nighthawk-flapping," as we have come to call it, in the fall, the other records being in the spring. Seven occurrences were noted in spring 1953, none in 1954, nine in spring 1955, one in fall 1955 and, one in spring 1956. Migrant Cooper's Hawks are normally seen from March 10 to about May 25, but nighthawk-flapping was seen only between April 17 and 21. The sky was clear on five of the six days on which nighthawk-flapping was observed.

Birds flying in this manner usually were seen at somewhat greater heights than those seen in normal migratory flight. In addition, their flight is more erratic, with sudden jogs to one side or the other being quite frequent. Often at this time the hawks fly in long arcs or in large circles, quite in contrast to their normal direct type of flight. Another departure from the normal is the long and narrow appearance of the wing, which acquires a very deep beat much like a butterfly. Ordinarily Cooper's Hawks have quite a rapid stroke but, while nighthawk-flapping, the duration of the wing beat cycle is at least twice as long. Since four of the displaying birds were trapped, resulting in only a minor deviation from our normal trapping percentage, it is doubtful that this behavior is deterrent to our trapping efficiency.

There seems to be no tendency for one sex to indulge in nighthawk-flapping more than the other but, of the nine birds that were aged, only two proved to be first-year birds. Migrant Cooper's Hawks in April, however, are trapped in a ratio of about three adults to one immature.

At least once an adult male and female were seen flying together in this manner, but more often only single birds were seen. All in all with the present evidence it seems doubtful that this is a courtship display but, I am reluctant to speculate on what other purpose it might serve.—DANIEL D. BERGER, *Cedar Grove Ornithological Station, Cedar Grove, Wisconsin, April 28, 1956.*

Effects of unusual spring weather on Scarlet Tanagers.—The unseasonably cold spring of 1956 in southern New York State pointed up a critical situation in the ecology of the Scarlet Tanager (*Piranga erythromelas*). Consistently cool weather, except for a few days, persisted well into May and culminated with killing frosts on the nights of May 23 and 24 as far south as Yorktown and Thornwood, in Westchester County, where temperatures of 28° F. were recorded in the lowlands. Heavy losses were sustained by florists, nurserymen, orchardists and vegetable gardeners. Weather records reveal that the average dates of the last killing frost are April 20 in southern Westchester and April 30 in northern Westchester County. Similar conditions prevailed in New York City immediately to the south, and in adjacent New Jersey and Connecticut.

The first Scarlet Tanagers normally return to this area from their winter quarters

during the first week of May, the males usually preceding the females by a week or so. Presently the trees are well leafed out, and the birds, concealed above the thick foliage, are feeding vigorously on early caterpillars as they go about their nesting. In 1956 the tanagers returned on their normal schedule, but were greeted by conditions far from customary. The foliage was not advanced, nor were large insects abundant. Tent caterpillars appeared, but these are frequently disdained by tanagers. The hatch of other caterpillars was delayed, but the hordes of warblers present at this time appeared to find an ample supply of small insects for food.

By May 15 the tanagers, particularly the males which had been in the vanguard of the flight, were noted with unusual frequency. And, surprisingly, they were seen mostly on or within a few feet of the ground, foraging for whatever might befall. By May 23 the National Audubon Society, the A.S.P.C.A., and the Bronx Zoo were swamped with inquiries from a curious public. Specimens were brought in, information was sought on proper first aid treatment and on the cause of the phenomenon. On May 25, at four locations in the New York Zoological Park, I observed nine male and four female Scarlet Tanagers; all were near the ground, many congregated about trash receptacles where scraps of food were to be found. They obviously were undernourished; their wings often drooped, they flew reluctantly and with difficulty, and sometimes even clung on vertical tree trunks to rest. Several were brought to the Park for treatment, picked up by hand from the ground, though uninjured. Within a few days they responded to a standard insectivorous bird diet. The public was advised to offer them bread crumbs and raisins, which served as an acceptable substitute.

The cold weather abated by May 29 and conditions for the tanagers improved quickly. By June they had resumed their normal stations in the tree tops where, presumably, their proper food was finally available. They were noted feeding on alate ants and on the larvae of noctuid moths. The crisis caused by a slight fluctuation in temperatures was past, but we have no indication of the mortality attributable to starvation, heavy automobile traffic, or terrestrial predators during this period. The entire episode graphically demonstrates how narrow is the threshold which may, when disturbed, radically affect a natural population.—RICHARD H. MANVILLE, *New York Zoological Society, Bronx 60, New York, June 9, 1956.*

Hudsonian Godwit in Colorado.—A male Hudsonian Godwit (*Limosa haemastica*), apparently the first of the species to be collected in Colorado, was secured by the undersigned and his grandson, Jack Murphy, along the shores of Clarkson Reservoir at the Mile High Duck Club, Adams County, on May 26, 1956. It was in company with a Lesser Yellow-legs (*Tringa flavipes*), an Avocet (*Recurvirostra americana*) and a Long-billed Dowitcher (*Limnodromus scolopaceus*). Its actions resembled those of the latter bird, but the godwit was noticeably larger and darker. The white band across the lower back was not evident as the bird fed in the shallows. There is a prior observation for the state (*Colo. Bird Notes*, 2[10]:10) by John and Margaret Douglass, a lone bird which they identified as this species, near Jackson Reservoir in Morgan County on May 22, 1955.—ALFRED M. BAILEY, *Denver Museum of Natural History, Denver, Colorado, June 22, 1956.*

Water moccasin preys on Pied-billed Grebe.—On December 28, 1953, a large water moccasin (*Agkistrodon piscivorus*), was killed in Gulf Hammock, Levy County, Florida. Dissection revealed the presence of an adult Pied-Billed Grebe (*Podilymbus podiceps*) in the alimentary canal.