over with grass stems and other herbaceous material. The cause of this modification was not determined until 11:15 on 23 July, when, while probing the nest with a pencil, a mouse (*Peromyscus* sp.) scurried out. On 24 July a mouse was again observed in the nest but escaped capture.

Most likely the nocturnal *Peromyscus* had occupied the nest on the night of 21 July causing the Indigo Buntings to abandon the nest before egg laying began. The displaced Indigo Buntings then apparently relocated at a new nest site, because shortly afterwards we noticed a female Indigo Bunting building a nest within the territory of the male less than 50 m from the old site.

This observation may be the first recorded instance of the nesting behavior of *Peromyscus* being a factor which could cause Indigo Buntings to abandon a nesting attempt. The mouse could have been either the prairie deer mouse (*P. maniculatus bairdii*) or the woodland-inhabiting white-footed mouse (*P. leucopus*). We found no published evidence of *P. m. bairdii* using bird nests for its own nest, but this subspecies is a capable climber under both field (Blair, Am. Midl. Nat. 24:289, 1940) and laboratory (Foster, J. Mammal. 40:496–513, 1959) conditions and could conceivably use such nests. On the other hand, nests of *P. leucopus* previously have been reported in deserted, open nests of the Gray Catbird (*Dumetella carolinensis*), Red-winged Blackbird (*Agelaius phoeniceus*), Wood Thrush (*Hylocichla mustelina*), and Red-eyed Vireo (*Vireo olivaceous*) (Audubon and Bachman, The quadrupeds of North America, Vol. 1, V. G. Audubon, New York, p. 302, 1849) and in cavity nests of chickadees (*Parus* sp.) (Edwards and Pitts, J. Mammal. 33:244, 1952) and woodpeckers (Picidae) (Metzger, J. Mammal. 36:104, 1955) during winter. Kendeigh (J. Wildl. Manage. 6:22, 1942) mentioned an open nest (species unidentified) destroyed by *P. leucopus* during the breeding season, and Stokes (Wilson Bull. 62:125, 1950) noted that 3 or 4 deserted nests of the American Goldfinch (*Spinus tristis*) were soon covered over and inhabited by *P. leucopus*. Stokes suspected that mice may eat eggs not being incubated. In no instance was there any mention that *P. leucopus* may actually occupy an active nest.

We thank R. H. Baker, B. D. J. Batt, D. L. Beaver, and L. W. Gysel for their comments. These observations were made while JEG was involved in a McIntire-Stennis project.—J. Edward Gates and Donna M. Gates, *Dept. of Fisheries and Wildlife, Michigan State Univ., East Lansing 48824.* *Accepted 13 Jan. 1975.*

Mourning Doves breeding in an unusual habitat: the coastal spruce forest. —Mourning Doves *Zenaida macroura* frequent rather open or brushy areas, including such man-modified habitats as suburbs and farmlands (Aldrich and Duvall, Condor 60:108–128, 1958). Aldrich and Duvall (op. cit.) characterize the Mourning Dove as "a widespread species in North America except in the boreal region". Numbers of this species have recently increased markedly in the northeastern U.S. and adjacent Canada (Fobes, Maine Field Nat. 15:30–45, 1959). However, while these birds often nest in conifers (e.g., Harris et al., Am. Midl. Nat. 69:150–172, 1963; Caldwell, J. Wildl. Manage. 28:732–738, 1964), there has been no documentation that they forage in coniferous forests.

Since 1969 I have occasionally observed Mourning Doves during the breeding season on Hog Island (Todd Wildlife Sanctuary), Bremen, Lincoln Co., Maine, in a mature forest consisting primarily of red spruce (*Picea rubens*) with small numbers of white

spruce (*P. glauca*) and occasional white pine (*Pinus strobus*). These doves concentrated their activities in an area of several hectares that was nearly leveled by hurricanes in 1954 and that is now covered by the rotting debris of the old spruces, patches of young spruces up to 7 m in height, and clumps of hay-scented fern (*Dennstaedia punctilobula*), with occasional small open areas and scattered trees remaining from the old forest. Though I found no nest, the consistent presence there of doves in twos and their frequent vocalizations suggested that they were breeding.

In 1974 I observed 2 Mourning Doves together nearly daily in the mature spruce forest. They concentrated their activities about a tiny opening about 20 × 8 m, far smaller than the openings in the hurricane-devastated area. On 6 occasions I flushed foraging birds from the ground in or near this opening. The space contained exposed rock, reindeer lichen (*Rangifera* spp.), haircap moss (*Polytrichum commune*), spruce and pine needles and cones, and a sparse intermittent cover of short grass.

On 1 July I flushed these birds and a partially grown young dove from the edge of this opening. The young bird's tail feathers were less than one-half grown; when it flew it reached the lowest limbs of an adjacent spruce only with considerable difficulty, suggesting strongly that it had been fledged nearby. During the following week I observed the young bird twice more nearby with the probable parents.

The doves nesting in the largely undisturbed spruce forests on Hog Island probably originated from the small population of birds in the area of blown-down trees. If this supposition is correct, Mourning Doves have entered a new habitat by a 2-step process, the first being residence in an area (heavily damaged spruce forest) bearing several similarities to habitats typically occupied by this species (large open areas, brush), as well as novel characteristics (areas of young spruces, occasional large spruces, edges of spruce forest). The move into a dense spruce forest resulted in acceptance of vegetational characteristics not typically associated with Mourning Doves, though one might argue that their tendency to frequent the tiny opening represents a response to conditions typically frequented by them. This proposed pattern of establishment closely resembles the 2-step colonization of British farmland by Oystercatchers (*Haematopus ostralegus*) suggested by Heppleston (J. Anim. Ecol. 41:23–51, 1972).

Though Mourning Doves are strong fliers and might simply nest in the spruce forest and feed elsewhere, as one might predict from the observations of Harris et al. (op. cit.) and Caldwell (op. cit.), the frequency with which I observed them foraging about the nesting area suggests that these doves did much feeding within the forest itself. Only one field exists within 2 km of the site of observations (on the adjacent mainland), and I never observed doves there; further, I never saw doves crossing between the island and the mainland. Thus, they apparently foraged largely or entirely on the island.

The common birds of the intact spruce forest used by these doves (Black-throated Green Warbler, *Dendroica virens*; Blackburnian Warbler, *D. fusca*; Yellow-rumped Warbler, *D. coronata*; Dark-eyed Junco, *Junco hyemalis*; Golden-crowned Kinglet, *Regulus satrapa*; Red-breasted Nuthatch, *Sitta canadensis*) characteristically breed in such areas. None of the species typical of heavily disturbed forests in this vicinity (e.g., Yellowthroat, *Geothlypis trichas*; Song Sparrow, *Melospiza melodia*) breed in largely unbroken forests similar to those where the Mourning Doves were observed in 1974, which makes the presence of the doves in this spruce forest particularly noteworthy and suggests that openings of the size frequented by this pair of birds are usually inadequate to attract species typical of other habitats.

In the summers of 1971, 1972, and 1974, I continually saw and heard Mourning

Doves in a similar though somewhat younger and denser red spruce forest on Loud's Is., Bristol, 3 km to the south. The parallels between these activities and those that I have reported from Hog Is. suggest that the doves on Loud's Is. were breeding as well.

I made these observations while conducting other research sponsored by the National Science Foundation (GB-6071, GB-31005). The National Audubon Society kindly permitted me to work in the Todd Wildlife Sanctuary.—DOUGLASS H. MORSE, *Dept. of Zoology, Univ. of Maryland, College Park 20742.* *Accepted 18 Dec. 1974.*

Spring migration of Sandhill Cranes from Florida.—The behavior of Sandhill Cranes (*Grus canadensis*) during their spring departure from Florida was described by Williams (Auk 87:156–157, 1970) but little information has been published on the conditions associated with spring departure. During spring of 1972 and 1973, 2198 cranes were observed departing Paynes Prairie, Alachua Co., Florida. Migration was also noted during 1974 and 1975, but detailed records were not kept. Weather information was obtained from daily weather maps of the National Oceanic and Atmospheric Administration, Environmental Data Service, U.S. Department of Commerce, and the Federal Aviation Administration (facilities located 10 Km N Paynes Prairie).

Earliest observed departure was at 09:01 and the latest was 12:29 EST. Mean time of initiation of migration was 10:16 with 91% of the cranes leaving between 09:45 and 11:15. A majority of departures (84%) for the 2 springs studied, occurred during the first 12 days in March. The earliest date of observed departure was 18 February 1975; the latest was 9 birds seen leaving 7 April 1974.

Table 1 shows the mean weather conditions for 26 departure days and 8 days within migration period when no departures occurred. Rising barometric pressure, warm temperature, and southeasterly winds of about 18 km/hr are associated with spring departure. Such conditions occur after west to east passage of high pressure systems during early spring. This phenomenon and the associated winds were described by Bagg, et al. (Wilson Bull. 62:5–19, 1950) as being associated with northward bird migration. Southeasterly winds would be significant to cranes migrating from Florida because their breeding areas in Michigan, Wisconsin, and

TABLE 1

SPRING DEPARTURE OF SANDHILL CRANES AND MEAN WEATHER CONDITIONS*

	26 Days of Departure ± S.D.	Range	8 Days of No Departure ± S.D.	Range
Temperature (C°)	22 ± 1.68	12–26	20 ± 1.26	14–24
Barometric pressure (cm of mercury)	77.10 ± .41	76.33–77.64	76.84 ± .44	76.77–77.66
Wind direction (000–350°)	158 ± 54.28	050–220	(>158)212 ± 36.86 (<158)051 ± 36.86	020–290
Wind speed (km/hr)	17.79 ± 4.08	7.41–27.80	14.45 ± 6.39	5.56–27.80

* Based on 3 hourly readings between 09:50 and 11:50.