

(Shake and Mattsson 1975) and during the subsequent 9 years of the cowbird control program the average number of young fledged per nest per year has varied from 2.1–3.2 with an average of 2.76 young fledged over the 10 years of cowbird removal (Fig. 1).

The principal objective of the U.S. Fish and Wildlife Service's cowbird control program is to reduce cowbird parasitism of warbler nests and consequently increase the total Kirtland's Warbler population. In spite of the cowbird control program, the Kirtland's Warbler population has not increased substantially. In 1971 the census of Kirtland's Warblers revealed the presence of 201 singing males (Mayfield, *Auk* 82:263–268, 1972). The annual survey of singing male Kirtland's Warblers during the 10 years of cowbird control has varied from 167–243 birds and averaged 207 (Ryel, *Jack-Pine Warbler* 59:93–95, 1981).

The adverse effects of cowbird parasitism have long been recognized; however, other factors influencing Kirtland's Warbler population levels are not well defined. The Kirtland's Warbler has very specific nesting habitat requirements, needing young jack pine (*Pinus banksiana*) stands of fire origin. Studies are being conducted to determine the critical vegetation requirements of their breeding habitat (Buech, *Jack-Pine Warbler* 58:59–72, 1980).

The lack of increase in Kirtland's Warbler numbers also emphasizes the need for information on the warbler after fledging, during migration, and on the wintering grounds in the Bahama Islands. Researchers have speculated that wintering conditions may be more severely limiting than the breeding habitat (Mayfield, *Jack-Pine Warbler* 53:39–47, 1975; Ryel, *Jack-Pine Warbler* 59:76–91, 1981).

Considering the data indicating greatly reduced nest parasitism and increased nesting success, it is evident the cowbird control program on the Kirtland's Warbler nesting areas has been successful. The cowbird control program appears to have been essential to the survival of this endangered species. However, additional research is needed to identify and evaluate factors which continue to limit Kirtland's Warbler population levels.

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Unusual nest sanitation by a Broad-winged Hawk.—The following observations were made from a tree blind placed 7.5 m horizontally from and 1 m above a Broad-winged Hawk (*Buteo platypterus*) nest 3.9 m up in a trembling aspen (*Populus tremuloides*) in Lincoln County, Wisconsin. Three times on 21 June 1980, one of us observed the same tending adult fly less than 1 m down from a perch in the nest tree to the nest and nibble at the recently excreted feces from a brood of two (4 and 5 days old). The feces had not cleared the nest and one of two nest-supporting tree trunks. We believe the hawk consumed the feces because much of the excreta had disappeared and at no time did it shake its head to rid the beak of the material. We obtained two photographs of this hawk with stains of feces on its beak and observed this behavior by this adult on six other occasions. The behavior sequence was usually as follows: the perched adult would watch as a nestling showed intention movements (rump elevation and backing toward nest rim) preparatory to defecation; when the ejected feces did not clear the nest and/or support trunk, the adult would instantly jump to the nest and nibble at the debris clinging to the nest or tree. The adult always consumed feces which were deposited on the nest or its supports during the 84 h and 39 min of observation from

21–26 and 28–29 June. By 30 June the young (about 14 days old) were able to excrete clear of the nest and its supports and we never again observed this adult consume feces.

Most young raptors are able to eject feces clear of the nest. Ellis (Wildl. Monogr. 70, 1979) stated that adult female Golden Eagles (*Aquila chrysaetos*) nibble their young to remove feces and other debris. Snyder (Living Bird 13:73–97, 1974) reported that parent Swallow Tailed Kites (*Elanoides forficatus*) at one nest continually covered the young's feces which had not cleared the nest with vegetation. We found no other accounts of raptors removing feces from a nest or its supports.

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First record of a Bald Eagle nest in West Virginia.—In May 1981, George Hall notified the Raptor Information Center of a Bald Eagle (*Haliaeetus leucocephalus*) nest located along the south branch of the Potomac River near the town of Moorefield, West Virginia. He reported that a pair of Bald Eagles spent the winter in the area and began nest building in early February. We contacted the caretaker of the property and arranged to examine the nest.

The nest was at a height of 12 m in a red oak (*Quercus rubra*) and appeared much smaller than nests of this species observed by the authors in the Chesapeake Bay region. The small size (1.5 m in diameter by 0.5 m deep) suggested that this was the first year the eagles nested at this site. The nest tree is on a steep bank, making it possible to look down into the nest. On 16 June 1981 the nest contained two eaglets which, because of their size and plumage, appeared to be approximately 7–8 weeks of age.

Although there are numerous sight records of Bald Eagles in West Virginia, we have found no previous nesting records. Bald Eagles have been sighted during two previous summers approximately 25 km south of this nest-site near Franklin, Pendleton Co. (Phillips, Redstart 47(1):46, 1980).

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Osprey spreads wings after fishing.—Other than cormorants (*Phalacrocorax* spp.) and anhingas (*Anhinga* spp.), few birds that wet their plumage during foraging show maintenance behavior such as wing spreading and shaking (Rijke, J. Exper. Biol. 48:185–189, 1968). Whereas several authors report that Ospreys (*Pandion haliaetus*) shake their plumage after