A PRELIMINARY REPORT ON THE BREEDING BEHAVIOR OF THE BLUE JAY IN ANOKA COUNTY, MINNESOTA

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Although the Blue Jay (Cyanocitta cristata) occurs commonly across most of eastern and central North America, much of its breeding behavior and other habits remain unknown to ornithologists. In an attempt to fill in some of the gaps in our knowledge of the Blue Jay, we began a study of the behavioral ecology of the species in the spring of 1980. This article summarizes briefly some of our findings in the first field season.

Previous researchers who have dealt with the Blue Jay have often given up on field studies because the species presents several problems. Blue Jays are sexually monomorphic, wary of traps and nets, difficult to age, and especially secretive during nest-building and incubation. This latter behavior seems to have created the most difficulties for researchers, such that sufficient numbers of nests could not be located.

No such problem occurred in the Cedar Creek Natural History Area of the University of Minnesota in northern Anoka County, Minnesota, where we were able to find 121 nests within a 27.5 hectare area (about one square mile) which included a housing subdivision adjoining the Cedar Creek preserve itself. Of these nests (all located between 14 April and 15 July 1980), 88 were either never completed or deserted and/or preyed upon, with only 33 broods surviving to banding age (8-14 days) and four of the latter were preyed upon after banding but before fledging. Local predators apparently included the Common Crow, chipmunks, red and gray squirrels, bull snakes, raccoons, weasels, and feral cats. The only “predation” which was actually observed occurred when a young boy took his pet cat up a tree and allowed it to knock a clutch of eggs from the nest.

Most of the nests in the Cedar Creek study area were located in northern pin oaks (Quercus ellipsoidalis) or bur oaks (Q. macrocarpa), typically about five meters up and along the main trunk, or a few feet out on a major horizontal branch. Nests began in April and May, before most of the leaves were out on the oaks, were placed lower in the trees than later nests, some of which were as high as 15 meters. A few nests were also found in the interior branches of eastern red cedar (Juniperus virginiana) and white spruce (Picea glauca). Nests elsewhere, such as at an alternate study site at Carlos Avery Wildlife Management Area just south of Cedar Creek, occasionally were located in other hardwoods such as Red Maple (Acer rubrum) and European Buckthorn (Rhamnus cathartica).

Once we had found the first nests, finding others became easier as we got the “feel” for where to look. Some nests were found by accident, and the most successful method consisted of letting an adult jay lead us to the right location following its foraging trips. During incubation, the male Blue Jay occasionally feeds the female at the nest, and both parents become more and more active as the hatched young mature; these habits sometimes led the

MAN-MADE NESTING MATERIALS — Blue Jays often include light-colored natural materials such as birch bark and dried weeds in the outer stick portions of their nests. Many nests in suburban areas also contain a variety of man-made materials. This photograph illustrates an “extreme” case of the latter in that the nest contained several tissue paper and cloth strips, three long white polyethylene ribbons, and two of the plastic “thingamajigs” used to hold six-packs of canned drinks. None of these human discards interfered with incubation by the female (shown here on the nest) or with the feeding of the young. Although this aboretal trashpile quickly attracted the attention of the photographer, it apparently did not serve as a signal to predators, and three colorbanded young fledged on about 9 June 1980. (Photo by Bill Hilton Jr.)