on the same branch with them. While the nuthatches were feeding young from outside the nesting cavity, the bluebirds often forced them to retreat within the cavity. The bluebirds, as far as we know, made no attempt to destroy the nest of the nuthatches.

At the start of our observations on this nest, we were not aware that two pairs of birds were using the same cavity for nesting. Therefore, we do not know if both pairs started work on the nest simultaneously. We do know that both pairs contributed in the construction of the nest, as we observed three of the adult birds carrying nesting material while the fourth adult was known to be in the nesting cavity. The nest itself was an excavated cavity about nine inches below the opening in the limb. The bottom of the cavity was lined with dry grass, strips of inner bark, and the "wings" of pine seeds.

The mating of at least one pair of the nuthatches was observed several times. On April 8 one nuthatch approached the nest with food in its mouth and called. He fed the female, who was on the nest, and then both flew to a nearby tree. The female started to vibrate her wings rapidly (as did any of the adults while feeding the young). The male then mated with her. Both flew from the branch. While in flight they came together for a short time and then broke apart. These actions were repeated several times.

The number of eggs laid is not known nor is it known whether they were laid by one female or both. When we opened the nesting cavity for the first time we found seven young. All seven appeared to be approximately the same size which would indicate that all hatched about the same time. According to Bent, the average clutch-size for this species is about five or six eggs while the maximum reported is nine. Thus the young may have been the progeny of just one of the two pairs involved.

We know that both pairs of adults helped feed the young, as we observed all four adults carrying food at one time and awaiting their turn to feed the young. Also both pairs helped remove excreta from the nest. There seemed to be no conflict whatsoever between the two pairs of birds. Several times we observed a pair of birds approach the nest. One member of this pair would then feed the incubating bird (one of the other pair); then both members of the first pair would fly away together.

Sixteen days after the young left the nest, we observed seven young and two adults within two hundred yards of the nesting site. We assume that this was the same family group that we had been studying. The other pair of nuthatches apparently had abandoned the group sometime after the young left the nest.

There are several records in the literature of two females of the same species or of two full pairs of the same species sharing a common nest. Some of the species reported nesting in this manner have been Song Sparrows, Tree Swallows, Robins, Wood Ducks, and canaries. As far as we know this is the first report of this behavior in the Brown-headed Nuthatch. Some of the literature relating to this problem is summarized by Brackbill (Auk, 69: 302–307, 1952).

The authors gratefully acknowledge the help of Gibson Johnson, Jr. in making some of these observations.—WARREN J. HOUCK, *Humboldt State College, Arcata, California,* and JAMES H. OLIVER, *Florida State University, Tallahassee, Florida.*

A Simple Method for Obtaining Attentive Data.—The accumulation of data concerning the amount of time spent in incubation by a female bird requires either many hours of observation or some instrument (Kendeigh, Illinois Biol. Monogr., 22[1–3]: 5–10, 1952). However in many cases because time or an instru-

ment may be lacking, a simpler method may be desired. An estimate of the proportion of time spent on the nest may be obtained merely by observing the nest at random times and determining the proportion of times the bird is on the nest. By this method it is possible to visit a number of nests serially and record presence or absence of the incubating bird. Some precautions are necessary. The visits obviously must not alarm the bird. Also, as in all such studies, the visits must be made at various times of the day if a detailed study is being made. Obviously the duration of the attentive periods can not be obtained by this method.

A test of this method is possible with some data on Hammond's Flycatcher (*Empidonax hammondi*) obtained at the Montana State University Biological Station (Davis, Auk, 71: 167, 1954). Nests were actually observed for 1159 minutes and the female was incubating 77 per cent of this time. Long after the data were collected "pretend" visits were made to the nest at 15 minute intervals. The procedure was to go through the original notes which recorded consecutive observations and note whether the bird was on or off the nest on the hour and at 15, 30, and 45 minutes after the hour. These data give a random sample of the observations. A total of 87 "visits" were made, and the female was present on 73.2 per cent of them. Since two times the standard error is 9.6 per cent, the value (73.2 per cent) is not significantly different from the actual 77 per cent. Furthermore it should be remembered that the 77 per cent is also an estimate (since only a sample of incubation observations was made) and so there is some variance there.

Dr. S. C. Kendeigh generously permitted analysis of the original records of incubation for three other species of birds. The detailed data for one female of each is as follows:

	Actual time (in minutes)		*Per cent of time on nest*	*Pretend visits. Number of times female was*		*Per cent of time on nest*
Species	*On nest*	*Off nest*		*On nest*	*Off nest*	
Bluebird (*Sialia sialis*)	5883	5558	51.4	377	353	51.6
Catbird (*Dumetella carolinensis*)	4780	2446	65.9	299	155	65.9
House Wren (*Troglodytes aëdon*)	7860	5345	59.4	521	327	61.4

The "pretend" visits were made by recording at 15 minute intervals whether the bird was on or off the nest. The differences in percentages by the two methods are obviously not significant.

This simple method should be useful to obtain data on a large scale without undue expenditure of time.—DAVID E. DAVIS, *The Johns Hopkins School of Hygiene and Public Health, Baltimore 5, Maryland.*

Black-crowned Night Herons Flying with Retracted Feet.—The observation recorded by Lawrence H. Walkinshaw (Auk, 70: 204, 1953) in regard to the Sandhill Crane flying with retracted legs during cold weather has prompted me to offer an observation.

To the rear of the bird house at The National Zoological Park, Washington, D. C., there exists a nesting colony of the Black-crowned Night Heron (*Nycticorax nycticorax*) consisting of approximately one hundred nesting pairs. When the winters are open many of the herons remain in the vicinity of their nesting site and fish by night in nearby Rock Creek and the Potomac River.