

What Four Gray Jays — Banded in Cook County, Minnesota — Revealed

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To attempt a study of any boreal forest resident bird in northeastern Minnesota is difficult for this bander because I cannot travel to the area of the Superior National Forest very often, and access into the forest and adjacent lands is limited as few roads lead into this wilderness. To enter Superior National Forest, you must travel by canoe; the idea is to put as much land and water between you and the next fellow. My family and I have camped on lake shores where no other humans have been seen for as many as seven days at the height of the tourist season in summer. The potential for bird study is unlimited, and so far as I can find out, not much banding in this northeastern part of Minnesota has been done.

From August 1962 through June 1972, I have gone with my family on 9 canoe trips within the Boundary Waters Canoe Area, a vast wilderness designated area within the Superior National Forest, encompassing a very large part of Cook, Lake, and St. Louis Counties. The time spent on an average trip is from five to seven days. Along with my personal gear, two 12-meter mist nets and the usual banding tools and equipment are stuffed into a bulging Duluth pack. Lashed inside the canoe during travel are eight 5-foot conduit poles. While paddling on our journey, my thoughts instantly turn to the Gray Jay (*Perisoreus canadensis*), as a canoe trip for me isn't complete without seeing one or more of these handsome birds.

In this particular ten year period, I have managed to band 17 Gray Jays. The chances of my going back to any of the campsites where these birds were banded are remote. The country is vast. We like to travel to new places. The possibility of recapturing any of those banded "Whiskey Jacks" is nil. It was a thrill to handle these handsome residents of the northern forests; I got some good measurements, and a few ideas on molt. Beyond these few facts, only a preliminary banding census was accomplished.

In late spring of 1972, we found the impossible: land for sale, near the Gunflint Trail. What is more, on this property was a small wetland, something the land owner thought would be a drawback to

the sale of the lot, but a dream come true for us, our own private swamp. What a prize!

On July 4th we bought the property, situated about 30 miles inland from Lake Superior on the 48th parallel, and surrounded by federal and state lands. At the time of purchase, there was no way to get to our land except by canoe — a two mile trip down the lake. This was fine, because it meant that civilization was mostly left behind. A brand new opportunity presented itself for fun, rest, observation and potential new studies. Were the Gray Jays here I wondered; if so, where, and how many considered our area "home"? If they were present, what part of our land did they frequent, and at what time of day would we see them? Would there be a chance that I could learn about their habits and behavior? No bird feeders were offered and none were hung; I hoped to study them under conditions as natural as possible.

The property is situated on the south-facing slope of Loon Lake (coordinates 480-0904). Topographically, there is a gentle hill from the south (the lake shore) to north. Black Spruce, Balsam Fir, and Northern White Cedar are abundant; the Cedar is most common. We are also happy to have two ancient White Pines and two seedlings of that species, and one Red or Norway Pine seedling growing by the lake shore. Deciduous trees include Heartleaf and White Birch, a few Yellow Birch, a large number of Black Ash which grow mostly in the wetland, and abundant stands of Quaking Aspen. The understory includes Mountain Maple, with evidence that they are browsed by moose and deer during the winter; Hazel Brush, and Mountain Ash (the native tree, not the type that one plants in a front yard). Despite the competition, the Mountain Ash produces a profusion of berries during years of average or above average precipitation.

The land climbs up from the lake shore at the south side, then slopes down again into a natural vale with the wetland to the east, and another upward grade to the west. To the north, a stream flows across a hill and into the wetland.

During three visits after the date of purchase, in 1972, the area that seemed consistently attractive to birds was the vale or "bowl" described above. This area is very scrubby in appearance: heavy stands of Mountain Maple, Hazel Brush, small Birch, some Mountain Ash, raspberries, and a lot of dead-fall which makes walking difficult. (Deadfall: mature trees that have been blown down during storms and have subsequently died.) A few Balsam Fir grow on the adjacent slopes into the "bowl". In the early fall, it was alive with migrating warblers, and in November we observed many small groups of Black-capped Chickadees, a few Boreal Chickadees, Hairy and Downy Woodpeckers, a pair of Black-backed Three-toed Woodpeckers, and a few Red-breasted Nuthatches. No Gray Jays were seen that year in that spot, but during the November visit we did see two near our eastern boundary by the lake shore in a dense stand of White Cedar, about one thousand feet southeast of the "bowl".

We returned six months later in late June 1973, for ten days of vacation. Remembering where I had seen the jays the previous November, I set up a 12-meter net perpendicular to the shore line a few feet from that same stand of White Cedar, on June 30th. The net was in a narrow clearing with one end three feet from the lake shore. Thirty minutes after the net was in place, I checked it and to my delight, one young sooty-plumaged Gray Jay was caught in the middle. The bird was very noisy while being handled and this was to my advantage. Before it was disentangled, two adult Jays came charging out of the tops of the Cedars and landed in the net; one on either side of what I assumed to be their offspring. Each one deserved very careful processing as I had only once banded a Gray Jay this early in the year.

Band number 1083-93757 was placed on one of the Adults (AHY). Wing measure was 143 mm, outermost three secondaries half grown, the retrices had all been replaced and were almost full grown with sheaths still evident at the base of each feather. The outermost rectrix on each side was a bit less than half grown. A big clue to this jay's sex was a well-defined brood patch that was fading, as tiny body feathers still in quill were growing over the bare skin of the breast and belly.

Band number 1083-93758 was placed on the second Adult (AHY). The body plumage showed no evidence of molt. There was no sign of a brood patch or cloacal protuberance. The wing measured 145 mm. The three outermost primaries were sheathed at the base, and the two distal secondaries

were also in sheath. The tail had been molted — it seemed almost full grown; all retrices were sheathed at the base.

Band number 1083-93759 was put on the sooty black HY. The plumage color generally reminded me of a classic dark male Dark-eyed Junco: almost black, but with enough charcoal hues to make it a very dark slate instead. The remiges and retrices were tipped with grayish white. There was also a small white spot by the lores. The plumage was in excellent condition with little if any evidence of wear. The wing measured 149 mm. This HY matched the description of the juvenal Gray Jay in Bent (1964), except this youngster seemed much darker slate black. There was no evidence of post-juvenal molt on this last day of June, 1973. Bent states that the post-juvenal molt for this species starts in early July.

On subsequent visits to Loon Lake the HY jay was retrapped on August 31, 1973, and again on October 15, 1973. My banding activities on those two dates were again confined to the "bowl" which is about one thousand feet to the northwest of where these three jays were initially captured. Examination of the plumage on August 31, 1973, showed a trace of juvenal characteristics; there was a slight "salt and peppering" noticeable on the anterior part of the crown giving a distinct mottled effect. On the second repeat on October 15th, 1973, this pattern had completely disappeared; the crown was then all white. The HY resembled an AHY.

Two days after the second repeat, we hiked through the woods to an abandoned logging road, about a third of a mile northeast of the "bowl". We saw three Gray Jays feasting on the berries at the top of a Mountain Ash. I did not have my binoculars to see whether any of them were banded.

In 1974 on two weeks vacation in early September, I netted and banded my only new Gray Jay for the year, again at the "bowl", on September 5th. The wing measured 155 mm, one of the largest individuals I had handled. The post-juvenal molt seemed complete except that the crown was slightly "salt and peppered" which was the only clue that this was probably another HY bird and possibly a male because of the large wing measure.

Returning to Loon Lake a month and a half later for a week-end visit, I hit the jackpot on my Gray Jay banding. On October 19, 1974, the only day that I had my nets in place in the "bowl", I trapped two jays within five minutes of each other in the early afternoon. One turned out to be my first return of this species and the other was a repeat. Both jays

represented a very interesting puzzle and a possibility.

The return, number 1083-93757, was the AHY that at the time of banding on June 30, 1973, had the fading brood patch. The time lapse between banding and return was almost sixteen months.

It would appear that this return indicates that at least part of our land is within this individual jay's territory. At this point in my studies the boundaries for this adult's home base were very sketchy.

The second banded jay, number 1163-76650, the repeat, was the HY that was banded on September 5, 1974 still showing a partial juvenal crown. Now the post-juvenal molt was complete. The time span from banding to the repeat date was almost six weeks. The fact that these two Gray Jays were in the "bowl" at essentially the same time on October 19, 1974, adds a possibility that this HY jay might be the current offspring hatched by this particular return AHY (apparent female) banded in 1973. During that one brief day of banding in October, 1974, no other Gray Jays were seen or heard in the "bowl's" vicinity.

In my very limited research of the literature, I found no mention of post-fledgling dispersal. Roberts (1949) states that family groups are seen in the fall. Rutter (1969) refers in his paper to Campbell (1965) and Roberts (1966), documenting reports of migration. The above return and repeat possibly indicate that adults and young Gray Jay broods of the year might still be intact as late as the middle part of October. Limited literature and very small samples render much of this paper purely speculative. Much more investigation is necessary.

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