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ADULT AND YOUNG EVENING GROSBEEKS AT SARANAC LAKE, NEW YORK: SUMMER OF 1952¹

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Every summer since 1947 young Evening Grosbeaks (*Hesperiphona vespertina*) have been reported from the village of Saranac Lake, New York, by competent observers, but it was not until 1949 that the senior author had the opportunity of making summer observations of the adults and young.

The first summer banding was done at the residence of Greenleaf Chase, 125 Lake Street, between July 26 and August 4, 1950. During this period two adult males, three adult females, three immature males and five immature females were banded. These are believed to be the first immature Evening Grosbeaks to be banded east of Michigan in the United States. Hence, the banding data are of some significance. All the Evening Grosbeaks banded during this period received the regulation numbered aluminum band on the right leg and a full width red plastic band on the left leg. Above the red band a half width blue plastic band was added to make the individuals of this group of birds more readily identified by sight.

During the next summer, 1951, between July 31 and August 4 we again banded the Evening Grosbeaks at the same location. There were two adult males, one immature male and four immature females in the lot banded. The lack of available banding time and not the scarcity of birds accounts for the smaller numbers. This group received the regulation numbered government band on the right leg and a full-sized red plastic band on the left leg above which a half width green plastic band was added for ready identification. The color banding done both years was to facilitate further observations of these individuals during the fall and winter at Saranac Lake. A number of reports from the 1950 summer's banding have been received as late as the summer of 1952 from observers seeing the color band combination.

As there has been considerable doubt and some confusion (probably based on Audubon's inaccurate drawing of an immature male, a specimen of which he certainly could not have seen) among the many Evening Grosbeak banders as to the time when the sexes of the immatures may be differentiated and also as to the time when the immatures receive the adult plumage, it was decided to make a more detailed study of this aspect of the young birds during the course of the summer banding

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from June 25 to August 14, 1952. Between these dates the following birds were banded: 31 adult males, 23 adult females, six immature males and five immature females. The repeats were as follows: eight adult males, 12 adult females, and one immature female. The regulation numbered government band was placed on the right leg. None were color-banded.

Among the 54 adults only two were previously banded. One female was wearing a narrow blue plastic band above a full width red plastic band on the left leg and the government aluminum band on the right leg. This bird had been banded by us at the same station on August 4, 1950 as an adult. Its recovery at this time and place shows that it had returned to the same locality to nest. It was later seen feeding a young bird. The other recovery, also a female, was banded by Dr. James L. Peters of Harvard, Mass.

All but five adults were banded at the rear of the residence of Mr. Greenleaf Chase, 125 Lake Street. The remainder were banded at the home of Mr. Charles S. Barnet on the outskirts of Saranac Lake at a place locally known as Peck's Corners. The residence of Mr. Chase is located on the western edge of the village. Adjacent houses are very close, however, the rear lawn is well surrounded with white birch, larch, spruce and cherry (*Prunus pennsylvanica*). This flora continues in a northwesterly direction into the broad forested areas of the Adirondacks thus affording a wide expanse of woodland for the grosbeaks in their journeys to and from their nesting sites and the feeders.

The summer population density of the Evening Grosbeak at Saranac Lake seems to be surprisingly high. Instead of a relatively few pairs of birds the indications, from the number banded and the relatively few repeats, are that probably more than 50 pairs of adults were in the area during June, July and early August. Our list of banded birds shows 31 adult males to 23 adult females, a ratio which is to be expected as the latter are more likely to remain on the nest or with the young while the male gathers food. It is the male that usually feeds the juvenals around the feeding stations, although the female has likewise been observed to feed the young.

It is regretted that time did not permit a systematic sampling of the adults by visiting the several feeding stations about the village and noting the ratio of banded to unbanded individuals by the use of a binocular. Such data would have yielded rather accurate information on the resident population of adult birds because the number of previously banded birds in the area was very small, about four per cent.

Mr. Chase has maintained, the year around, automatic feeders and hence the Evening Grosbeaks are accustomed to a constant supply of sunflower seeds. An adequate supply of water is also available in the garden and nearby brooks. There still remains the question of why the Evening Grosbeak, nearly a decade ago, selected this area for a new breeding range. Some may be inclined to favor the persistent feeding by a number of the local residents while others are inclined to look upon the similarity of climate, vegetation and native foods to those of their other nesting areas as the principal reason. The birds are almost too gregarious for one to consider overpopulation as a sig-

nificant factor unless it brings about a scarcity of food during the nesting period.

The behavior during banding is worthy of note. Two double cell Dyke traps were used. One was placed alongside an automatic feeder constantly in use and on which the seed supply was covered by a cardboard. The second trap, mounted on a platform of a newly constructed self feeder, was placed about 30 feet from the first near the lower branches of the cherry tree which is used regularly as a perching site or for the cherries. On the first day of banding the birds came quite readily to the baited traps. No difference was noted in the fearlessness of the sexes. By far the largest numbers of birds were taken on the first and second days. There was a marked decline in the rate of capture after that. Frequently the Evening Grosbeaks came in pairs and sometimes these would be taken in the two compartments of a trap. We were frequently able to determine mated birds in this manner as both would be taken together at first or later we would catch either the banded or unbanded one first and the other would remain around the trap and occasionally would become caught. In the event the free bird lacked the necessary courage to remain around the trap it would wait in a nearby tree until its mate was released.

The large number banded was indeed surprising in view of the fact that rarely more than eight individuals were to be seen at one time in the vicinity of the banding area. During the first few days of banding they were very tame, allowing one often to approach within a short distance of the feeders.

By the third day of banding the birds were rather wary of the traps and flew nervously back and forth across the open garden. This nervousness was shared by the Rose-breasted Grosbeaks which also entered the traps occasionally. In general the Evening Grosbeaks, adults or young, had no fear of the Hairy Woodpeckers, grackles, flickers, nuthatches, dogs, automobiles or people.

At first the traps were removed from the self-feeders after the banding was concluded for the day, but it was soon discovered that the birds were very trap shy when the traps were replaced on the platforms. They would fly back and forth across the banding yard and veer sharply away from the traps on the accustomed feeding stands. Occasionally one would alight on the platform and stand quite upright on the edge and gaze at the seeds in the trap without venturing nearer. To overcome the trap shyness the traps were left on the self-feeder platforms at all times and when not being operated the doors were wired open. The traps were then abundantly supplied with sunflower seeds. In this way the traps soon took on the aspect of feeders, in addition to the automatic feeders. Thereafter the shyness was greatly reduced.

In general the adults were quiet when taken from the traps although an occasional bird would scream loudly and in a few minutes several other birds would appear in the trees and take up the loud talking.

Regarding the manner in which the adults carried food to the young, the senior author previously stated (1951) that "at no time could any evidence of food be seen in the grosbeak's bill; hence the five to ten

sunflower kernels must have been held in the back part of the mouth or throat when carried to the young." This surmise is now known to be correct for many of the adult birds had the extreme back part of their mouths packed with food of various kinds which they had gathered to take to the young. We did not remove any of the material, but could readily see the kernels of the pips of some fruits and of course the kernels of sunflower seeds. The food was continually held in the mouth while the birds were in the traps and during the banding operations.

The first juvenal was seen by Mr. Chase on July 1st. On July 3rd the senior author observed a young bird, late in the afternoon, along Lake Street about a quarter of a mile from the banding station. It was being fed by the male which gathered food from the tips of the branches of a cut-leaf maple nearby. The nature of the food could not be determined. At this time the young could fly with exceptional ease and was well feathered.

On July 14th a male and young male came to the feeder where the young was fed sunflower seeds several times. Then the adult was caught in the trap. The young paid no attention to the incident but sat quietly nearby for five minutes. When the adult was taken from the trap the young flew up into a tree. After the father was banded it flew to the cherry tree and quietly settled down on a limb in the manner in which banded Evening Grosbeaks do so frequently when handled. After 15 minutes the young bird joined the adult and sat nearby. Thirty minutes later the adult shook out its ruffled feathers and moved to a higher location in the tree in order to reach some cherries which it fed to the young bird while the latter made a series of characteristic soft purring notes.

For two to three weeks after the young first appear at the feeders they are fed by the adults (chiefly the male) and during this time the juvenals do not enter the traps. In order to catch them during this period one would have to use a platform-type trap with drop doors. As the young follow the adults to the feeding trays it is not unlikely that they would enter a trap with large open doors. The first immatures were banded on August 3rd. At this they were self reliant in the matter of obtaining food. Hence they readily entered the traps and behaved much like the adults when handled. Their bite was about equal to the adults' although they did not scream when handled. Several of the young carried apparently two species of *Hippoboscidae*.

Between August 3rd and 14th six male and five female immatures were banded and notes were made on their plumages as well as close-up kodachromes of each sex. At this time the birds were probably six to eight weeks old and well feathered. Their general appearances differed but slightly if any from that at the time when they first came to the banding area. The first impression is a medium large bird with a buffy-colored body and a very large horn-colored conical bill. This applied to both the juvenal males and females. There is often a greater difference in the tone of the buffy color between the individuals of the same sex than between the sexes. The buffiness varies to an olivaceous, yellowish and grayish appearance at various places on the individuals. The male lacks the characteristic black crown and dark yellow band



Fig. 1. Young male Evening Grosbeak in juvenal plumage. From a Kodachrome taken August 3rd, 1952, at No. 125 Lake Street, Saranac Lake, N. Y.



Fig. 2. Young female Evening Grosbeak in juvenal plumage. From a Kodachrome taken August 14th, 1952, at No. 125 Lake Street, Saranac Lake, N. Y.

of the adult on the forehead and backward over the eyes. A photograph of a juvenal male is shown in Fig. 1. It will be noted that the head and back of the body are quite uniformly colored. The tail is in most cases a uniform black, and at times the inner edges of the feathers may be grayish or whitish. An occasional bird may have small grayish or whitish spots on the inside tips of the tail feathers. The upper tail coverts are grayish black or they may have white tips or fringes as shown in the illustration. The under tail coverts are buffy. The ten primaries are black with grayish or whitish fringes along the inside edges or sometimes faintly at and near the tips, the gray or white fringing becoming wider toward the inner primaries. The five inner secondaries are usually a white with a yellowish overcast often somewhat of a very pale buffy-yellowish color. The greater coverts match to a considerable degree the primaries and secondaries. The lesser coverts are a darker buffy color than the body. The scapulars are likewise of a darker buffy hue. The under parts of the body are of the same buffy color but somewhat lighter.

The juvenal female, Fig. 2, has the same buffy color on the head, back and scapulars. The under parts are also buffy but of a lighter color. The distinguishing coloration is confined to the wings and tail. The three outer primaries are black, the fourth largely white on the inside middle section. The 5-9 primaries are white from the shafts for half their length. The tenth may have a white spot at the outside tip and an inside white band along the margin. The secondaries are variably marked with white, black and gray. The inside tips of the tail feathers are marked with white spots and patches. The outside feather has a small white spot at the outer extremity. The upper tail coverts are gray with white tips. The under tail coverts are buffy.

The juvenal plumage is retained during the rest of their stay at the Saranac Lake area which is until the middle part of September. As the autumn approaches very few of the grosbeaks are to be seen around the feeders. At this time the native food is abundant and they seem to prefer it to sunflower seeds.

During the latter part of September and October the adults and the juvenals molt and during this time they are probably roaming the woods as individuals or a few in a group rather than in flocks. In November they reappear in small numbers here and there and in rather widely distributed places. After the autumn molt there is little or no difference between the plumages of the adults and young. The features most likely to be retained by the young are a more buffy appearance and the horn color of the bill which may be retained to a minor degree. Both of these may be so faint and subtle that a very careful examination is necessary late in the autumn or early winter. At this time the birds are reluctant to visit feeders and consequently it is more difficult for the banders to examine the birds carefully after the first adult plumage is acquired.

Several of the juvenals were weighed. Two females weighed 52.6 and 49.6 grams respectively. A juvenal male weighed 55.2 grams and an adult male weighed 51.2 grams. During the latter part of the summer and early autumn the young are probably as heavy or heavier, on the

average, than the adults after several months' work of raising a family. The above weights of juvenals are probably the first weights of live young birds of this species.

One of the interesting phases of the Evening Grosbeak, yet to be studied at Saranac Lake, is that part of their life history in the vicinity of the nests. To date no nests have been found although there is probably a considerable number in the immediate area each spring. Attempts have been made to locate the nests a number of times but without success. To be rewarded, one will probably have to spend considerable time and start his observations before the new leaves on the deciduous trees appear to block one's view of the birds' activities. Search for old nests after the leaves have fallen may also offer leads for the following spring's work.

The authors wish to express their appreciation and thanks to Mr. and Mrs. Greenleaf Chase for the many courtesies and assistances given during the period of banding the many birds at their residence. Mr. and Mrs. Charles S. Barnet likewise have been of very great assistance in the study and observation of the grosbeaks and to them we likewise extend our thanks and appreciation.

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NOTES ON A ROOSTING FLOCK OF GRAY-CROWNED ROSY FINCHES

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For several winters a small flock of *Leucosticte tephrocotis littoralis* (Baird) was known to roost beneath a small highway bridge about three miles east of Washtucna (elevation 1020 feet), Adams County, Washington. During the winters of 1949-1950 and 1950-1951, we were able to obtain a small amount of information on the composition of the flock and on the weights of individual birds. Unfortunately the bridge was replaced during the summer of 1951; the new structure has not been used as a roosting site. Since this species is so infrequently banded, it is thought that our data, although extremely fragmentary, may be of interest.

Table 1 shows the dates of banding and recapture. Of particular interest is #48-199701 which was banded on the initial date of our operations and which was definitely present each time the colony was netted. During the winter of 1950-1951 this was the only Rosy-finch which roosted at the bridge. Its return constitutes an interesting case of *Winterortstreue*.

The data on the periodic changes in composition of the flock (Table 2) during the winter of 1949-50 suggest that whereas there may be a strong tendency among some individuals to use the same roosting site consistently, this is by no means general. The data certainly suggest considerable instability in the composition of the roosting flock.

The few weights which we were able to obtain are of some interest because they suggest that there may be a loss in body weight in the order of two grams during a winter night (Table 3).

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