

# Carolina Birds and Birders

. . . with Willie Morrison

## Hartsville's Golden Grosbeak

WILLIE M. MORRISON

*Oh! He's gorgeous!*

*Looks like something that escaped from the tropics!*

*He looks more like one of those white-winged canaries one sees now and then!*

Such remarks filled the air of the dining room at the home of Mrs. G.A. Kalber, 805 E. Home Avenue, Hartsville, S.C., for four days, 8 through 11 January 1970, while bird lovers gathered to watch the golden grosbeak at her feeder.

Mrs. Kalber telephoned me shortly after 9:30 Thursday morning, 8 January, to ask me what kind of bird was on her feeder. "He is bright lemon-yellow all over his body with snow-white wing and tail feathers. There are no black, brown, or gray feathers anywhere on him."

In my ignorance I answered that there was no such bird that I knew of unless it was someone's Canary that had gotten loose. "He's too big to be a Canary," Mrs. Kalber protested, "more the size of the Evening Grosbeaks. He came in with the flock this morning and has been feeding with them ever since." Then I knew it was time to put out a Rare Bird Alert.

Our golden grosbeak had the pale yellow-green massive conical bill and light pinkish feet and legs of the normal Evening Grosbeak. In contrast to the yellow body, the black eyes appeared unusually large and bright. Ever alert and observant as he perched in a large cedar tree or cherry laurel or dogwood, he seemed to be a loner, giving the impression of waiting for the others to come to the feeders first. If there were any birds too close to him, whether grosbeaks, Purple Finches, American Goldfinches, or Pine Siskins, he would peck at them in a feisty and belligerent manner, making them move over or fly away. At the least disturbance he was the first to fly into a tall tree.

Among those who responded to the Rare Bird Alert were Mr. and Mrs. E. Calvin Clyde Jr. of Effingham, S. C. Mr. Clyde, an experienced bird bander, agreed that the strange bird was an Evening Grosbeak in aberrant plumage and photographed it feeding on the windowsill. Outdoors he left his blind set up within camera range of the feeders in preparation for the bird's return on Sunday morning.

Deciding that the golden grosbeak had left Mrs. Kalber's feeders for the day, I returned home shortly after noon on Saturday. Imagine my surprise and excitement when I glanced up into the big oak and there he was staring at me! At 9:00 Sunday morning the cause of all our excitement was back in my yard perched in a big cherry laurel, then onto the feeder where he made himself quite at home for the rest of the morning. For the first time I did not want a rare specimen on my feeders. Why? Because a mile east of my house Calvin Clyde had arrived at Mrs. Kalber's and was patiently

waiting in his blind to photograph the golden grosbeak. But he waited in vain. The golden grosbeak never reappeared after leaving my house Sunday morning.

Later I found out that the bird had spent some time at the feeding station of Mr. and Mrs. Hugh Campbell, about half way between my house and Mrs. Kalber's.

On 16 January Mrs. Tommy Dabbs (now CBC president) and Mrs. Edgar G. Kilby (now CBC secretary) of Sumter, S.C., came to spend the day with me. As a special treat I had some slides to show them. I wanted them to guess what kind of bird it was and would tell them nothing about it. As soon as the first slide flashed on the screen Mrs. Dabbs exclaimed, "Where did you get pictures of my albino Evening Grosbeak? He stayed at my feeders three weeks last year!" With the instant recognition of both these birders and their spontaneous responses, I knew that our golden bird had been seen the spring before in Sumter, 40 miles away. Mrs. Dabbs had written me about the "perfectly beautiful" albino, but she had not stressed the yellow coloration. I had a mental image of a nearly pure white bird. The bird was being pecked on by other grosbeaks at her feeders on 4 February 1969. He stayed around for about three weeks, usually eating after the others started to leave.

### **What is an Albino?**

Intrigued by the appearance of our golden grosbeak, I began writing letters to people who might have useful information on albinism. I searched the material available at the Coker College Library. Librarian Elizabeth C. McNair and her associate, Mary M. Hunter, were most kind and helpful. Through Interlibrary Loan they obtained photoduplications of many articles not available locally.

Color in birds is produced in two ways: By pigments or by the physical structure of the feathers. Pigments are of two main sorts, MELANINS and LIPOCHROMES. Melanins produce the black, dull yellow, and the brown colors. Lipochromes, on the other hand, produce the orange, yellow, and the red colors, rarely the violet, blue, and green colors. (*The Life of Birds*, Joel Carl Welty, Alfred A. Knopf, New York, 1963, p. 44)

ALBINISM is a reduction or absence of pigment in feathers, usually melanins (dark feather pigments). There are four degrees of albinism in birds: TOTAL ALBINISM, when pigment is totally absent from plumage, irises, and skin; INCOMPLETE ALBINISM, when pigment is totally absent from plumage, irises, or skin, but not from all three; IMPERFECT ALBINISM, when pigment is reduced (diluted) in any of all three areas but never completely absent from any one; PARTIAL ALBINISM, when pigment is completely or partially absent from parts of any or all three areas. Of the four degrees of albinism, partial albinism is the commonest. It frequently involves only certain feathers (such as the primaries), often in a symmetrical pattern with each side of the bird being affected in the same way. (*A Laboratory and Field Manual of Ornithology*, Olin S. Pettingill Jr., Burgess Publishing Co., Minneapolis, Minn., 1946, p. 143)

Albinism may have an inheritable genetic basis. It may also develop in an individual bird as a result of a physiological disturbance such as an injury or improper diet. Albinism resulting from injury is usually not symmetrical and may involve only a single feather.

The opposite of albinism is MELANISM, an undue blackness in birds that implies an excess of pigment. Two other aberrations are XANTHOCHROISM and ERYTHRISM, terms applied respectively to abnormally yellow or red birds. These three phases of color are, as a rule, shown in caged birds and are evidently due to unnatural diet or other abnormal conditions.

My inquiry directed to the Laboratory of Ornithology, Cornell University, brought the following reply from James Tate Jr., assistant director:

"Your bird appears to lack the dark pigments that normally mask or reduce the evident yellow - hence it is the opposite of melanistic. Melanin is the black-brown pigment which birds manufacture and deposit in their dermal structures. The reduction or lack of melanin is usually called incomplete or complete albinism. A patchy distribution of melanin is partial albinism.

"The reds, oranges and yellows in bird plumage come from plant pigments in the diet. The ability to convert and deposit them is not related to the ability to manufacture melanins."

After viewing a slide of the Hartsville grosbeak, Dr. Joel Carl Welty commented in a letter dated 26 March 1970:

"I am very sorry that I cannot help you appreciably with your Evening Grosbeak problem. I have never seen a grosbeak with similar plumage and I can only guess at its cause.

"As a guess, I would say that the bird has suffered a gene change altering the enzymes that regulate melanin production, at least in the feathers. I think that you are probably correct in assuming that zooxanthin is still fully expressed in your yellow bird, even in the normally black head. Here the yellow is normally covered over with the black pigment, but in this mutant (?) bird, only the yellow survives and hence the head looks pure yellow . . . Color abnormalities take strange turns in birds, and in other animals as well."

This must also be the explanation for the "strange lemon-coloured bird very like an overgrown canary" seen by M.W. Holdom at Crescent, British Columbia, Canada, on 22 September 1947. Holdom expressed the opinion that his aberrant Evening Grosbeak if seen away from the flock would be "taken for some rare visitant from the tropics." (*Canadian Field-Naturalist*, 1948, Vol. 62, p. 164)

Robert C. Ruiz, 300 Wilson Avenue, Swannanoa, N.C., reports an albinistic Evening Grosbeak:

"The first observation was made on 21 January 1969 at 12:05 PM from the kitchen window where a white bird was seen among the feeding grosbeaks. It proved to be an albino Evening Grosbeak with black eyes and a tinge of yellow on the neck. The second observation was in Black Mountain, about three miles away, in the yard of Mr. and Mrs. W.A. Allison, 120 Church Street.

"On 8 February it was spotted by my son, Charles, on the drive and flew to the sunflower seed feeder. The other grosbeaks paid no particular attention to it as far as shunning it or trying to drive it away. It visited us again on 17 February and for the last time on the 25th for the early morning feeding in company with other grosbeaks.

"A friend in Asheville told me that she had had a white Evening Grosbeak at her home twice in March."

Could Mr. Ruiz and his friends have seen a female Evening Grosbeak afflicted with the same type of albinism seen in the Hartsville bird? I think a female without melanins would show very little yellow pigmentation compared to the male.

Imperfect albinism has been reported in female Evening Grosbeaks (*Canadian Field-Naturalist*, 1949, Vol. 63, p. 115, and Eloise F. Potter, pers. com.). In both cases the reduction of melanins left the bird a dirty white in general appearance. The wing and tail feathers were light brown and white instead of black and white. The yellow on the nape was prominent.

Elizabeth Teulings, T.A. Beckett III, and Eloise Potter all report having handled female Evening Grosbeaks with a halo of white feathers on the crown. H. Mack Owens reports from Salisbury, N.C., a male Evening Grosbeak that was "out of the ordinary in that the yellow on the head, rather than ending in points behind the eye, continued around and completely encircled the head. This gave him the appearance of wearing a yellow halo."

W.J. Underhill, of Wendell, N.C., writes about a bird that exhibited the patchy distribution of melanin typical of partial albinism:

"The albino evening grosbeak that we had some three winters ago was completely white except for a very few dark feathers scattered along the wings. It stayed in this area some two or three weeks and fed along with the other grosbeaks. I have not seen it since. There have been some reports of one in Raligh, N.C., this winter that seems to be an absolute duplicate of the one that we had. The eyes of this bird were not pink."

Incidentally, the pink eyes associated with albinism are caused by blood showing through from the capillaries. This may also give a pink hue to certain skin areas.

C. Chandler Ross, research associate, The Academy of Natural Sciences, Philadelphia, lists nine sight records of partially albino Evening Grosbeaks in his paper "Albinism Among North American Birds" (*Cassinia*, 1963). He found that albinism is recorded most frequently in the Robin, followed by the House Sparrow and the Common Crow.

While Hartsville's golden grosbeak had a counterpart in the bird seen in Canada 23 years ago, he was unusual and beautiful enough to create throughout the Carolinas a great deal of curiosity about plumage variations. Some of the very interesting letters pertaining to other species are quoted below.

### **Yellow and Orange Cardinals at Charleston**

It appears that "off color" birds are on the increase or else we have a greater number of keen observers. We have a Common and a Boat-tailed Grackle that appear to be complete albinos, in the Charleston area since last summer. We also have a partial albino crow and Red-winged Blackbird.

We have at present a YELLOW male Cardinal under observation. He has the black mask but the remainder of the body, wings and tail are yellow. He is in the bird sanctuary of the Charleston artist-ornithologist, Mrs. Anne Worsham Richardson.

In Summerville, S.C., there is an orange male Cardinal that I have not seen but have had reports of it from three people. It visits feeders regularly. I have the skin of a cream colored male Cardinal that has no black bib. It is interesting that this male raised (fathered) two broods in which the primary wing feathers showed cream colored feathers. The color factor was apparently sex-linked on the male side as none of the five female young in the broods were affected by unusual pigment.—T.A. BECKETT III, Magnolia Gardens, Charleston, S.C.

### **Albinistic Female Red-winged Blackbird**

I will try to give you a rundown on the Red-winged Blackbird. There was enough brown on the head to see, indistinctly, the usual striping. There were a few dark spots on the under-tail coverts and belly, but very few. The most unusual markings were the pink shoulders! The rest of the bird was white. The pink shoulders and the striped head would have suggested an immature male but I saw this bird, in company with a normally marked male, as a pair. As usual, he acted as the lookout, and she alone feeding young, both in and out of the nest. (I have it recorded on film.) She had to be the female.—H. MACK OWENS, P. O. Box 666, Salisbury, N.C. 28144

### **White-headed Field Sparrow**

At our feeding station last spring, 1969, a white-headed Field Sparrow came in. The bird looked like a miniature Bald Eagle. We trapped the sparrow and examined it in hand. It went through a spring molt, changing from dirty white to glistening white on the head. The rest of the plumage looked normal. I suspect that the freaks showing albino tendencies probably have a poor survival rate. Lacking good camouflage, they are conspicuous to predators.—ROBERT P. TEULINGS, Route 2, Chapel Hill, N.C. 27514

### **Albinism as Viewed by South Carolina's Poet Laureate**

"Dangerous Beauty" Archibald Rutledge calls albinism in *Nature Magazine* (December 1938), expressing the view that albinism handicaps life in the wild. "These are nature's albinos, made spectrally beautiful by the absence of pigments. Anything living may be albino, whether on land, in the air, in the water and, of course, humans."

Avian albinos seen by Dr. Rutledge include a Cooper's Hawk, a Red-tailed Hawk, a Ruffed Grouse, and a hen quail ("a true princess of the wild—an exquisite albino"). Dr. Rutledge continues, "The field sparrow seems to have a tendency in this direction with all variations as to colors and degree of coloration in plumage. I have three mounted

specimens of the white English sparrow. They are very different in the shade of color that their plumage displays. One is literally snowy; one is dusky white; and the third is a delicate cream color."



### **Spring Meeting Held at Southern Pines**

On 1-3 May 1970 the annual spring meeting of the Carolina Bird Club was held at Southern Pines, N.C. Headquarters was the new interpretive center of the Weymouth Woods Sandhills Nature Preserve. The Friday night meeting centered around a slide program given by Weymouth Woods Ranger-Naturalist L.M. Goodwin Jr. on flowers, animals, and birds found in the Sandhills area.

On the Saturday field trips, 98 CBC members compiled a list of 100 species of birds, including 22 species of warblers. Field trips were led inside the Weymouth Woods Preserve by L.M. Goodwin Jr. and James F. Parnell, to Whispering Pines and Little River by Robert and Elizabeth Teulings, and to Drowning Creek and the Sandhills Wildlife Management Area by J.H. Carter III. Swainson's Warblers were heard at Drowning Creek, and they were both heard and seen at Little River. Red Crossbills were recorded at Weymouth Woods, and nearly everyone saw Red-cockaded Woodpeckers.

Friday night and all day Saturday, bird artist Doug Pratt had a number of his excellent paintings and drawings on display in the Weymouth Woods Library. At the Saturday night meeting a slide program on the new Raven Rock State Park was given by Robert Soots of Campbell College. His beautiful slides depicted many of the plants and wildflowers that grow at Raven Rock. At the end of the meeting, the new slate of CBC officers was presented and elected. Evelyn Dabbs of Sumter, S.C., succeeded Robert Teulings as President of CBC. (I know all of us join in wishing Mrs. Dabbs a successful and rewarding term in office, and in congratulating Bob Teulings on the wonderful job he did as president.)

Sunday's feature was a field trip to Raven Rock State Park led by Dr. Soots. The beautiful scenery, especially at the cliffs along the Cape Fear River, included numerous interesting plants and flowers such as Mountain Laurel and Rhododendron. The Buies Creek Bird Club served an excellent picnic lunch to the hungry birders along the bank of a rock-strewn stream. The setting brought to mind similar scenes in the North Carolina mountains. CBC again expresses its sincere appreciation for the thoughtfulness of the Buies Creek Bird Club.—J.H. CARTER III, P. O. Box 891, Southern Pines, N.C. 28387