

Observation of a Male Strawberry Finch

(*Amandava amandava*)

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This article summarizes 20 hours of observation, October 13, 1991 to November 23, 1991, on a male Strawberry Finch (*Amandava amandava*) in the College of Natural Resources aviary at the University of Wisconsin-Stevens Point. The University of Wisconsin-Stevens Point has had an aviary featuring exotic finches and native fish and reptiles for over ten years. The species of finches that influenced the behavior of the male Strawberry Finch were the Java Rice Finch, owl finches, Cordon Bleus, parrot finches, Gouldians, Red-eared Waxbills, Orange-cheeked Waxbills, Star Finches, one female Strawberry Finch and, in late October, a baby Strawberry Finch. The exhibit is located in the first floor lobby of the College of Natural Resources building. This exhibit provides opportunity for students majoring in Biology, Wildlife, and Captive Wildlife Management to gain valuable hands-on experience in the husbandry of these animals.

The Strawberry Finch has a variety of other common names which include Red Avadavat, Bombay Avadavat, and Tiger Finch (Bates 1970). The Strawberry Finch is in the waxbill group and falls into the family of Estrildids. This bird is small and found in India and parts of Southeast Asia (Goodwin 1960). Strawberry Finches

occur in large flocks among reedy marshes and wet grasslands (Austin 1961). They are traded commonly between India and other countries because they tame easily and are relatively easy to raise in captivity (Austin 1961).

The males can be distinguished very easily from the females because they are sexually dimorphic. The male, when in his breeding plumage, is almost all red with the exception of a black stripe from beak to each eye. His lower breast, flanks, wings and rump are spotted white. The female is dull earth brown with a red rump patch (Goodwin 1960).

Ingestive Behavior

Ingestive behavior is the behavior associated with eating and drinking. The male Strawberry Finch ate mainly millet and dry seed. He also ate soaked seed, mealworms, green sprouts, and cottage cheese. According to Goodwin (1982), Estrildids generally eat large quantities of dry seed but the millet tends to be eaten in the largest amounts. He ate the millet off the ground or by pecking at the hanging millet sprays. He did not spend much time eating out of the dish which contained the bird seed. He preferred to hop around on the sand and wood chips to look for and peck at seeds. When he was extremely

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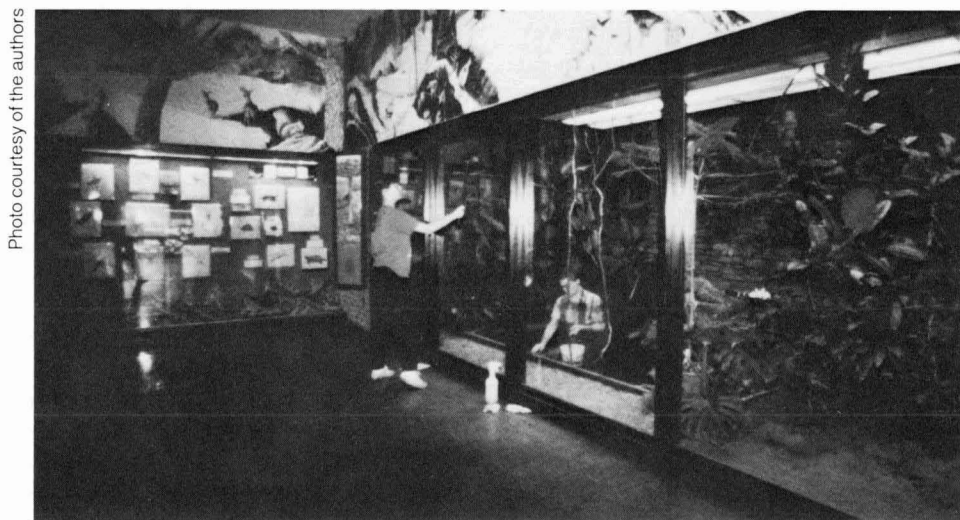
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This aviary exhibit at the University of Wisconsin, Stevens Point served as the observation study site for the male Strawberry Finch.

Photo courtesy of the authors

hungry, he jumped into the seed bowl but this was usually done in the morning when fresh food was first made available. When eating the dry seeds, he held the seed between his upper and lower mandibles. He then raised his lower mandible two or three times to crack the seed before it was swallowed.

When eating mealworms, the Strawberry Finch always grabbed the worm by the end and squeezed out the insides, thus leaving the exoskeleton behind. Once or twice, he ate the remains after squeezing out the insides. This was also observed by Goodwin (1960) when he was watching his Strawberry Finches. The Strawberry Finch I observed started eating at 10:00 a.m. after the fresh food was set out and continued eating all day.

Drinking behavior was observed many times. The male drank about once an hour. He usually drank out of a pool of shallow water located on an island in the middle of the aviary pool. He also drank water from the rock wall ledges of the waterfall and water from a large bowl used by the turtles for a bath.

Estrildid finches exhibit two kinds of drinking behavior: tip up drinking and suction drinking (Heldweiller 1990). The male finch exhibited tip up drinking. He dipped his head down and took some water into the bill and then raised his head to swallow. The majority of Estrildids drink by dipping the bill into the water and then lifting the head to allow gravity to let the water flow down the throat (Goodwin 1982).

Shelter-seeking Behavior

Shelter-seeking behavior is the behavior of seeking out optimum environmental conditions. The structures that the bird used most often were a potted five-foot tall Norfolk Island Pine tree and a grapevine perch over the water. The male Strawberry Finch made the greatest use of the perch over the water. Whenever he was frightened by people on the outside of the aviary, he flew to this perch for security. If the perch was being used by diamond doves, he would then seek shelter in the Norfolk Island Pine in the corner of the aviary. His use of the perch for security is probably a reflection of his acclimating to captivity, since, in India, Strawberry Finches live in reedy marshes and wet

grasslands. If he were in a natural setting, he would probably select thick grasses for cover instead of an open perch.

The finch was never seen sleeping. He probably slept in the nest with the female. He stayed in the nest for up to two hours during the day. We could not locate him at night because it was too dark in the aviary.

Agonistic Behavior

Agonistic behavior is the behavior associated with conflict between two individuals. The Strawberry Finch's agonistic behavior involved conflicts with several birds in the aviary. There was also conflict with the baby Strawberry Finch when it was old enough to fly. The Strawberry Finch always chased the other finches away from his perch. These were the Java Rice Finch, owl finches, Cordon Bleus, parrot finches, Red-eared Waxbills, Orange-cheeked Waxbills, and Star Finches. The only birds he did not evict were the Diamond Doves, probably because of their size. He chased the finches off by flying at them and pecking at their rump feathers until they flew away. Once they started to fly away he chased them a few more feet and then flew back to his perch. When he flew to the food dishes his behavior was more submissive. He was frequently chased away by the Gouldians and the Cordon Bleus.

The conflict with the baby Strawberry Finch occurred when the baby landed on his perch. The young bird was chased away just like any other bird, except there seemed to be a lot more pecking involved. Whenever the baby was eating, the male hopped over to the baby and chased it away from the food. He only chased away the baby after it was old enough to eat on its own.

The male also defended his nest site. He always chased away the other species of finches from the plant in which his nest was located. Again, the only birds he could not chase away were the Diamond Doves. All the other birds were chased away the same way they were chased from the perch. We did not observe any aggression or conflicts between the male and female.

Sexual Behavior

Sexual behavior involves the behavior associated with courtship, mating,

and related events. We observed a pair of Strawberry Finches during one breeding cycle. The courtship of the Strawberry Finch starts out with a courtship display (Goodwin 1982), which we were not able to observe. During this display, the male holds a piece of grass or feather by the firmest end and then starts to sing and bow. The bowing is done first on one side of the body and then on the other side (Goodwin 1982). The male we watched fluffed up his head and breast feathers and then turned his tail toward the female. He did almost three circles because the female kept hopping in circles around him. This display is called the tail-twist posture and is characteristic of courtship behavior in the Strawberry Finches (Goodwin 1960). He sang occasionally during the tail-twist posturing when he faced toward the female. This singing was usually comprised of loud quick whistles. According to the literature, this singing may or may not happen during this type of display (Goodwin 1982).

During copulation the female first lowered her head and then raised and lowered her tail. Then he mounted her. Copulation ended when the female hopped or flew away. The display in which the female raised and lowered the tail to show the male she was ready to copulate, is called the tail quivering display (Goodwin 1982).

The nest was built by the time we began our observations. The nest was built in a long tubular wicker basket located in a four-foot tall, shrub-like plant which was next to the waterfall dripping from the ledges and the large pool of water. The basket was entirely lined with grass and feathers. Due to the shape of the nest we could not observe any behavior when the birds were inside. He carried feathers and blades of grass to the nest where they were deposited. He carried blades of grass by the thick end, never by the middle. According to Goodwin (1960), his Strawberry Finches always carried their nesting material the same way.

The male Strawberry Finch used a little creativity when getting feathers. The Diamond Doves had a nest in the upper branches of the Norfolk Island Pine. Whenever the doves moved around, some feathers fell out. Frequently, the Strawberry Finch hopped around on the lower branches looking

up. When a white feather fell from the doves nest, he grabbed it and took it back to his nest.

When he took nesting material to the nest, he stayed in the nest to incubate the eggs. According to the literature, some species of Estrildids bring material for the nest during incubation. The reason for this is that, in the wild, it helps screen the nest entrance or impede the view into the nest (Goodwin 1982). I did not find this the case with the Strawberry Finches that I watched. I could see far into the nest with binoculars. There were no feathers blocking or positioned in the opening of the nest.

Incubation of the eggs is done by both the male and the female during the day but at night just the female incubates (Goodwin 1982). Our male alternated with the female about every half hour. When he came out from incubating, the first thing he did was sing from his perch or fly over to the food.

Epimeletic Behavior

Epimeletic behavior involves care-giving behavior toward young or other individuals. His care-giving behavior to the baby lasted for about three to four weeks. This was from when the baby hatched until about one week after it fledged. We did not observe any epimeletic behavior while the baby was in the nest because of the length and position of the nest. The epimeletic behavior we observed occurred entirely after the baby fledged. When the young bird first left the nest, the male Strawberry Finch attended to it. He chased away other curious birds by singing loudly and pecking at their feathers. The fledgling begged to him for food, and he responded by putting his beak in the fledgling's mouth and regurgitating food into the crop. During regurgitation he moved his head and neck in short rapid motions. This coincides with the way most Estrildids feed their young (Goodwin 1982).

He also performed epimeletic behavior toward the female. He preened the head and neck of the female. This is called allopreening and is done to strengthen the personal bond between mates and divert aggressive tendencies into harmless forms of activity (Goodwin 1982). Goodwin also stated that allopreening may serve to remove ectoparasites.

Eliminative Behavior

Eliminative behavior is the behavior associated with the elimination of wastes. Whenever he defecated it was from a branch up off the ground. The fecal material was mainly white and oblong in shape. Occasionally it had brown in it. This was probably due to the hard exoskeleton of the mealworms. He did not defecate in any one single place but the places that he chose were off the ground. When defecating, he leaned slightly forward and lifted his tail. After this he resumed the behavior he was doing prior to defecation.

Investigative Behavior

Investigative behavior is the sensory investigation of the environment. The male Strawberry Finch was already familiar with the environment in the aviary when we began our observations. When drinking water, he seemed to investigate the aviary by looking around on both sides of him before taking the next drink. He never left the aviary, so there was no investigative behavior of the outside environment.

Conclusion

Because the Strawberry Finch was active and had a relatively short breeding cycle, several adaptive behavior categories were observed. All birds can teach us something just by observation. By spending as much time with your birds as possible, you can learn more about their natural habits and requirements in captivity.

About the Authors

The preceding article is a revised report written for an Animal Behavior class at UWSP by the senior author. He will be pursuing his Doctorate of Veterinary Medicine at the University of Minnesota beginning the fall of 1993. He will have a small animal emphasis and wants to specialize in wildlife rehabilitation. Mary Cahow has been curator of the exhibit since 1986, and is currently participating as a breeder for the AFA's Red Siskin Project.

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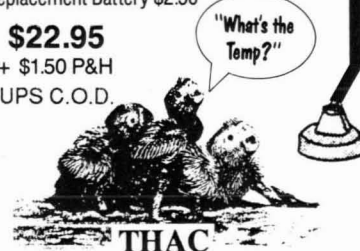
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