## OBSERVATIONS ON A CAPTIVE BROWN THRASHER (<u>Toxostoma rufum</u>)

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On July 18, 1972, a young fledged Brown Thrasher (<u>Toxostoma rufum</u>) was given to me by a University of Montevallo student, Mr. Jack Burgstresser. The previous day, when Mr. Burgstresser parked his car in front of his home on a residential street in Montevallo, the bird had flown from an oak tree and alighted on the top of the car. The bird then hopped onto Mr. Burgstresser's shoulder and remained there as he walked into his house. The complete tameness of this bird was its most singular characteristic. Neither Mr. Burgstresser nor I was able to locate anyone in the area who had reared a Brown Thrasher nestling.

A similar case of an individual of this species approaching man has been reported (Sidney E. Ekblaw, "A Tame Brown Thrasher," <u>Wilson Bull</u>. 30:92, 1918). Bachman (Audubon, <u>The Birds of America</u>, 3:11, Dover Reprint 1967 of 1844 edition) wrote that he raised many Brown Thrashers in his aviary and kept one specimen for 3 years until it was killed by a cat. He does not report any case of a Brown Thrasher reared in its normal environment approaching man.

During the first few days I had this specimen in my possession, I allowed it the free run of my office and of my laboratory and made notes of its behavior. This bird was extremely curious. It ran and/or flew about the room investigating any and all objects within its reach. When first investigating any object, a pencil for instance, the bird approached slowly turning the head from side to side, viewing the pencil with first one eye and then the other. Next, he would begin tactile examination of the pencil by slowly picking it up in its beak and turning it over and over, releasing it and repeating this several times. If the pencil bounced upon release or made a loud noise, the bird would jump rapidly to one side partially extending its wings. On occasions he would jump into the air and fly several meters away from the object. The most interesting activity was displayed when the bird came upon a stack of letters or other loose papers on my desk. Beginning with the top-most papers, he would methodically grasp each sheet in his beak, and walking sideways or backwards, drag it off the stack onto the desk top. This would continue until the stack was spread out. If I replaced a few sheets on the stack after he had dragged them off, the bird would speed up his activity. If I persisted, he would stand next to the stack and feverishly scatter sheets to the right and left by sliding his closed beak beneath them and flipping them with a rapid jerk of the head after the fashion of the species in moving leaves in search of insects. This procedure sometimes continued for approximately one minute after which time the bird either lost interest or, more frequently, began to beg for food by opening its beak and crouching and shaking its partially extended wings when my hand came near to replace papers on the stack. The thrasher's overall behavior pattern in response to man, certain domestic animals and wild birds, gave strong indication that imprinting had occurred on this specimen by some human subject, or certainly that its behavior was atypical of its species. During the 27 days that I had this bird under careful observation, it indicated on numerous occasions that it preferred a condition of close proximity to humans to either solitude or the company of certain other animals. As I moved about the laboratory the bird flew to me or ran to me if I moved more than 3M. away from it. If I left the room, the bird followed me immediately; or, if I shut the door it would begin to make the typical alarm note of the species. This note is described by Bent (U.S. National Museum Bulletin, 195:369 II, 1948) as resembling a loud kiss. He states, "The kiss note is a loud smack, or sucking kiss, something like the sound made by the clicking of a heavy pair of pruning shears, a most startling sound for a bird to make. . ." The thrasher continued to emit this call at approximately 2-sec. intervals until I reappeared, at which time it flew directly to

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me, or for about 2 min. if I did not return within that time. On occasions when the bird was left in a room that was strange to it, the alarm call was made at more rapid intervals and for longer duration. If I made any sound outside the door before opening it, the bird would begin giving the alarm note and continued even after I entered the room and was in full view of it, stopping only after it had flown to me or had been released from its cage. At this time, the alarm note changed to a call like "chuck." This call did not have the rather metallic and urgent quality that characterizes the alarm note of this species. The "chuck" was the most common sound emitted by this bird as long as it was in my possession.

Indoors, the thrasher spent the night in a cage. In the morning when I approached, the bird would commence the alarm call and struggle to escape from the cage. When released, it would fly immediately to my shoulder and begin the "chuck" sound. When food was placed in the small cage in the morning, the bird usually began feeding, but on several occasions it fluttered about the cage and would not eat until released. For the first 7 days, it voluntarily entered the small cage each night. However, it became increasingly reluctant to do so and had to be placed in the cage by hand each night. Under no conditions could I coax it to fly to me if I was standing in or near the utility room where the cage was kept.

Every morning, I placed the thrasher in an outdoor wire enclosure  $2\frac{1}{2} \times 2\frac{1}{2} \times 6\frac{1}{2}$  M. where 2 chickens and 2 pigeons were kept. When released into this cage, the thrasher usually flew from one end perch to the other and then fluttered against the wire nearest to me and began the distress call. It would remain thus occupied for approximately 15 min. before it would fly to a perch. As soon as I moved or attracted its attention, it would again fly toward me. If the bird was hungry when placed in the outdoor enclosure, it would feed briefly and then fly toward me. When I entered the enclosure, the thrasher flew to my shoulder and began the "chuck" call. There was a definite direct correlation between the frequency of the call on these occasions and the amount of time that had elapsed since I had last been seen by the bird. I stopped placing the thrasher in the large outdoor enclosure after it escaped one day through an opening in the wire. On this occasion my nextdoor neighbor called me, and I found the thrasher perched on her head. The bird had escaped from the cage and flown to the people it saw approximately 30 M. away. When I arrived it flew to my hand, then to the ground where it fed briefly on some insects.

When the thrasher was released in the house, it spent a great deal of time running about in various rooms exploring under and behind the furniture. It rarely flew in the house but remained on the floor most of the time. If I left the room, the bird would fly in search of me, using first the "chuck" and then the distress call if it did not find me immediately. Of all the objects in the house, rug fringes proved to be the most interesting to the thrasher. If left undisturbed, or not distracted, it would spend as much as 15 min. moving back and forth along the end of a rug, pulling and tugging at the fringes with its beak. It would also shake the individual fringes and manipulate them in its beak after the manner of this species in softening and breaking up insects while feeding. After about an hour of exploring about the house, the bird would fly or run directly to me perching on my head or shoulder. It would routinely fluff its feathers, shake itself and preen for about one minute. The primaries and secondaries were preened first and then certain breast feathers. On such occasions the rectrices and other feathers were rarely preened. After the brief preening activity, the bird would settle itself on my shoulder, completely flex its legs, partially erect the contour feathers of the body and those on the crown, flex the neck and rest the head on the body, close its eyes and sleep for 5 to 15 min.

The reactions of the thrasher to other birds and animals were varied and interesting. On the day the bird was brought to me, I was feeding it some small bits of ground beef on a laboratory table, and it took no apparent notice of the several students around watching it feed. Suddenly, it noticed a House Sparrow (<u>Passer domesticus</u>) fledgling being held on the table about one meter away. The thrasher immediately assumed its threat display. Very little of the sparrow was visible because a student had both hands cupped about it resting on the table. However, upon noticing the sparrow, the thrasher erected all its contour feathers as well as those on the head, partially extended the wings, spread the rectrices with the lateral ones forward so as to form a scoop of the tail, partially flexed the legs, lowered the head with the beak pointing anteriorly and parallel to the table top and ran rapidly toward the sparrow. Before the thrasher reached the sparrow, the student moved it, and the thrasher dropped all manifestations of threat, turned about and returned to its feeding. According to the student holding the sparrow, it reacted to the thrasher's threat display by quivering noticeably. Subsequently, when the sparrow was held close to the thrasher, the latter completely ignored it.

The threat display was observed on two other occasions. In both cases the thrasher was in the house and saw a member of its own species fly into a tree just outside a window. The threat display was very brief, and normal activity was resumed in both cases while the bird toward which the display was directed was still in view.

On all possible occasions, the thrasher was closely observed to determine its reactions to members of its own species. I was never able to determine even the slightest manifestation of species recognition on the part of the tame bird when other Brown Thrashers were within view. A family group of wild Brown Thrashers consisting of 2 adults and 2 juveniles passed the outdoor cage several times daily during their foraging. One or more members of this group continuously gave the "chuck" call as they moved about. I never noticed the tame bird reacting to these birds in any way, nor did they seem to take any notice of it.

The first time the thrasher saw my dog, a Dachshund, in the house it sounded the distress call and flew directly to me. For about 2 days the bird seemed to be afraid of the dog but gradually became used to it. When I placed the bird on the dog's back, it would remain there apparently unafraid. However, if the dog walked toward the thrasher, the bird would move away.

The thrasher never lost its fear of the 2 chickens and 2 pigeons in the outdoor cage. If any of these larger birds approached within approximately one meter, the thrasher either flew or ran from them.

On several occasions I released the thrasher in my yard to observe its reactions. The bird seemed to prefer the areas of the yard covered with leaves to the grassy areas and lawn. It would run a few meters, stop and quickly scatter leaves and plant litter with its beak to uncover insects. The bird would rapidly pursue low-flying insects by running after them and was quite successful in the number it captured in this manner. Although wild thrashers frequently came through the yard calling to each other while it was outside, the tame bird took no apparent notice of them.

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DIET AND FEEDING BEHAVIOR: While it was in my possession, the thrasher's diet consisted of the following:

Fruit	Insects	Meat	Grain	Nuts
*Tomato *Plum **Apple *Grapes ***Raisin	*Beetles *Slugs *Earthworms *House Fly	**Ground Beef	***Cracked Corn *Wheat **Millet	*Dry-roasted peanuts *Cashew nuts *Pecan

\*High level of preference. Consumed by the bird daily or every time available. \*\*Medium level of preference. Usually but not always consumed by the bird when available. \*\*\*Rarely or only occasionally consumed by the bird when available.

Although no measured quantitative data were obtained as to amounts of various food items consumed by the bird, the items could be ranked as is shown in the accompanying table. By far the most preferred food item was dry-roasted peanuts. Peanuts were followed closely by cashew nuts. Of the fruits, tomato was most preferred followed by plum. Most of the insects eaten were caught by the bird itself. Grain was in the form of mixed scratch feed, containing cracked corn, whole millet and whole wheat. The wheat was usually eaten early in the day, the millet next, and cracked corn last. Usually the skin of tomato and plum were not eaten.

When a whole peanut was presented to the thrasher, the bird grasped it between the mandibles and placed it in a corner of its cage, or on the floor, and hammered upon it with the tip of the beak. Small chips that were broken were eaten immediately. If the peanut was knocked aside, it was sometimes replaced in the original position before being struck again by the beak. If the peanut skidded along the floor, the bird followed it hammering off and eating small chips. When a peanut or cashew nut was broken into pieces for the bird, it tended to eat larger pieces than it would when it broke them off itself. For example, pieces in excess of approximately 2mm x 2mm were rarely eaten when broken with the beak but were further reduced in size before eating. However, when handfed, the bird readily ate pieces approximately 5mm x 5mm with apparent ease.

Insects, whether soft-bodied or hard, were subjected to considerable macerating action with the beak. This seemed obviously necessary in the case of beetles; however, annelid worms and soft-bodied larval insects were subjected to softening action which did not seem necessary to render the insect soft enough for the bird to eat. Hard insects were hammered with the beak in a manner similar to that of nuts, and soft insects were "chewed" between the mandibles and frequently knocked against the ground or floor by the bird with a quick lateral movement of the head. If an insect or piece of nut was lost by the bird in grass or leaves during this activity, no attempt was made to retrieve it; another morsel was sought immediately.

After the thrasher escaped from the large outdoor cage, I began placing it in a smaller outdoor exercise cage measuring  $1 \times 1 \times 1$  meter. The bird was placed in this cage with food and water each morning and brought into the house before dark.

On July 9, it was first apparent that the bird was showing symptoms of what was apparently some sort of respiratory malady. When an attempt was made to vocalize softly, the only sound the bird made was "pff, pff." However, the bird's appetite remained good. The symptoms continued and were similar to those described by De La Ponde, Gordon G. and Yvonne A. Greichus ("Care and Behavior of Penned Double-crested Cormorants," <u>Auk</u> 89: 644-650, 1972) for birds suffering from aspergillous infections of the lungs. Therefore, on the morning of July 13, I treated the thrasher with a subcutaneous injection of 0.50 cc terramycin (oxytetracycline HCL) diluted with 3 parts water and placed it in its exercise cage. Unfortunately, I was not able to bring the bird in until 11:00 p.m., and, at this time, I found that the bird had been killed by a predator of some sort. The head was protruding through the one cm square wire mesh. The occipital region of the skull was crushed and the skin on the neck was torn. A domestic cat was seen in the area on several successive days.

Consequently, a planned series of experiments to obtain quantitative data on the food habits of this species and further information on the interesting behavior of a specimen completely lacking in fear of man had to be abandoned.

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## BANDERS' CORNER

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One of the highlights of my winter's banding occurred when a flock of Lapland Longspurs appeared at the Old Courtland Airfield. Records show that, in the past, very large flocks (up to 1000 birds) have been seen at Courtland, but in recent years, various observers have not been able to locate them. However, this year Bob Reid and Greg Jackson visited the airfield and found a "few" birds. When I learned of the birds' presence, I decided to go up and look for them, as I had seen only one in my life. So, on the morning of February 24, 1975, accompanied by Ted Weems, I set out for North Alabama.

To a person who lives in the densely-wooded, hilly Jefferson County, the vastness of open, flat Courtland Airfield is staggering. To look out over hundreds of acres of short grass, concrete and plowed cotton fields and think of looking for a ground-dwelling bird that looks like grass seems hopeless. Add to this the fact that it was snowing and the wind was blowing at 25 to 35 mph, and you will understand our lack of enthusiasm. To shorten this tale of woe, suffice to say we found the birds, at least 150, in a burnedover grass patch between runways. I would like to say it was our great skill and intimate understanding of bird behavior which made it possible, but that just isn't so. We found them quite by accident when a Horned Lark I was watching ran off the runway and stood in a patch of grass; he was surrounded by longspurs. Finding the birds, however, was only the beginning.

It is never easy to catch birds in an open field on a windy day. As Ted and I were putting up my mist nets, they began to freeze; they were damp because my previous banding effort had been terminated by a rainstorm. When the moisture froze, it turned white, making the nets highly visible, but my fears about the birds seeing the nets were eased because the wind was so strong that it quickly evaporated the ice. The wind, however, was our biggest obstacle. As birds hit the net, they would simply bounce out again. In spite of this, as the sun set, Ted and I had succeeded in catching, banding and photographing fifteen Lapland Longspurs.

While banding new birds is always fun, it is particularly exciting to hear about a bird banded earlier. This summer I received a notice from the banding office informing me that one of the Purple Finches banded at Collirene on February 3, 1974, (see <u>Alabama</u> <u>Birdlife</u>, Vol. 22, p. 9), had been recovered by another bander in Schenectady, New York. So far, this is the only bird recovered of the 443 banded on that date.