

On 26 July 1981 a Great Blue Heron captured and ate an approximately 10-day-old Black Tern chick after landing on a mound within reach of the tern's nest. The heron captured the chick with one strike, reoriented the bird between its mandibles, and swallowed it head first. Several adult terns mobbed the heron for 4 min before the attack, and 2 adults continued to mob the heron for an additional 3 min after the attack, following which they departed. Seven minutes later, 2 adult terns mobbed the heron for another 3 min. The heron assumed a defensive posture, struck several times at the adult terns, then departed from the area.

On 4 August 1982 a Great Blue Heron captured and ate an approximately 17-day-old Black Tern chick after landing in shallow water near the nest. The heron spent nearly 4 min eating the chick. Six adult terns mobbed the heron for 11 min during and after the attack. Two of these terns mobbed the heron for another 25 min until it departed.

In May 1983 we observed another interaction between Great Blue Herons and Black Terns in the same area. From 26–30 May, 7 pairs of terns had been claiming mounds and building nests. On 30 May 1983, at 1500, 4 Great Blue Herons landed within 20 m of some of these nests. Terns from nests nearest to the herons immediately took to the air and called alarm while flying over the intruders. This in turn resulted in the remaining terns joining in the alarm. After 4 min of calling, the terns left the area for the rest of the afternoon. The intruders were joined by 6 other herons throughout the following 4 h. Within one day of this disturbance, the terns abandoned the nests. On 3 June, one adult tern was observed on one of the nest mounds, but never again after that date.

In conclusion, herons may occasionally eat Black Tern chicks and affect placement of their nests.

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**Observer Recognition by the Northern Mockingbird.**—In reference to a male Northern Mockingbird (*Mimus polyglottos*), Laskey (1935:379) remarked "That he recognized me as the intruder who visited his nest was quite evident for all his attacks were directed to me while for others scoldings were deemed sufficient." In a study of Northern Mockingbirds in southern Florida, I found that males and females learned to recognize me. The phenomenon represents a barrier to researchers attempting a simultaneous study of adults and offspring. This note describes the phenomenon and discusses its biological relevance.

Observations were made on a color-banded population of Northern Mockingbirds on the main campus of the University of Miami. My research focused on the singing and reproductive behavior of mockingbirds (Merritt 1984). I made regular visits to the territories of 15 adult males from March to August 1980. During separate visits to each territory I (1) quantified behaviors of adult males during timed intervals, (2) recorded songs, (3) viewed contents of nests to determine the stage of nesting, and (4) banded nestlings when they were 6–8 days old. In addition to these activities, after 14 May 1980, Y. Oniki and I visited nests daily and made measurements on eggs and nestlings.

When I looked into nests containing eggs and young nestlings, adults usually hovered above me or perched nearby and gave alarm calls. When I returned to these territories later the same day or on subsequent days to make behavioral observations, the adults did not act aggressively toward me.

Both adults attacked me when I banded nestlings at the first nest on 4 April. When I returned to this territory on 5 April to make behavioral observations, the male gave alarm calls and began following me as soon as I entered the territory. I left the territory

and returned about an hour later, and the male attacked me again. I then left the territory and returned wearing a hat. The bird showed no signs of recognizing me. During the next several days it became apparent that if other people walked across the territory they were not attacked; if I walked across the territory I was attacked unless I wore a hat.

The behavioral response by adults was similar on other territories. None of the birds showed signs of recognizing me until I banded their nestlings. Twelve of the 15 males obtained mates and produced nestlings during the breeding season (10 males were monogamous, 1 male was bigamous, and one male lost its mate at about the time I banded its nestlings). Nine of 12 mated males and 4 of 12 females learned to recognize me. The 3 males which did not obtain mates never showed signs of recognizing me.

By 15 May 1980, when Oniki and I began daily measurements, many of the mockingbirds in the study population recognized me. During these visits to nests, 11 of 12 males and 8 of 12 females attacked me when I handled their eggs. All males and 9 of 12 females attacked me when I handled their nestlings. The 3 females that did not attack me were the only ones to abandon nests (all during the egg stage). One male and 2 females regularly made contact with my back, arm, hand, and the back of my head.

Nesting ended in early August 1980. By the end of August none of the birds attacked me when I crossed their territories. During the 1981 breeding season, I conducted frequent censuses of the study population but avoided coming close to nests. Of the 12 males and 12 females breeding in 1980, 8 males and 8 females were present in 1981, but none showed signs of remembering me.

Apparently, mockingbirds learned to recognize me as a potential predator. Although other studies have reported that intensity of attack by parent birds is greater when the nest contains nestlings rather than eggs (Ricklefs 1977, Gottfried 1979, Patterson et al. 1980), these studies have not documented a learned response to predator or human intrusion at the nest. This study documents a change in animal awareness, supporting the ideas of Griffin (1981). It is unclear if learning to recognize me was triggered by (1) my being close to the nest at a critical stage of nesting, (2) physical contact with the young, or (3) a combination of these stimuli. The response of adults may be viewed as a form of parental investment (Trivers 1972) which changes according to the stimulus, stage of nesting, and reproductive value of the offspring.

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