

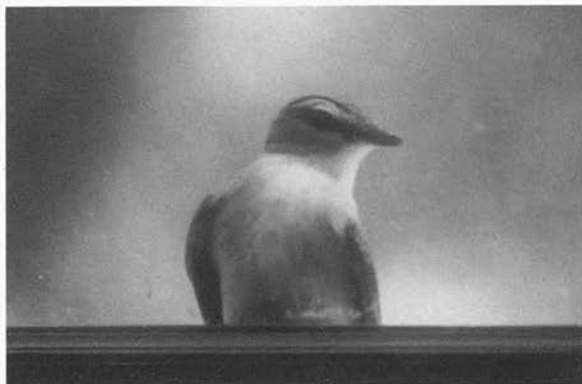
RED-EYED VIREOS ATTACK THEIR IMAGES

by William E. Davis, Jr.

I have long been accustomed to the springtime tapping at my library window, as our resident male Northern Cardinal hovers and strikes at my windows with his beak — apparently “fighting” with his reflection, a spectral interloper into his territory.

Hence, I was not surprised when on May 31, 1997, at about 8 a.m., my wife told me that a bird had been banging into the window of our library repeatedly during the previous morning, and was doing it again today. When I went into the library, I could hear the bird striking the glass of the rear windows of the library, and when I peeked behind the curtain that covers the window on the inside, I saw a Red-eyed Vireo perched on the sill. My wife said that the bird had been so active at the front window that she opened the curtains to discourage the bird. (The curtains are black facing outside, and when I went out and looked at my reflection, it was obvious that the reflection backed by the black curtain was vastly more clear than the reflection in the window when the curtain was open; in the latter case the reflection was confused by objects visible inside the library). The bird's preference for targeting closed curtains was the usual case — if one pane out of six had closed curtains behind it, the bird almost always attacked that sixth pane.

At about 1 p.m., I heard the bird striking the front window where the curtains were open, providing me with an excellent view of the Red-eyed Vireo. The attack bouts lasted for several minutes, after which the bird flew off, presumably to a different part of its territory. Typically the bird perched on a maple



Red-eyed Vireo at the window. Photograph by the author.

tree limb, 6-9 feet from the window. Its feathers were sleek but it did not fan its tail or show any of the other behavior typical of aggressive displays. It would then fly horizontally to the window, flutter or hover in front of it, and then make from one to three strikes at the window before returning to the branch or perching on the window sill. The windows in the library are Anderson-type with three vertical panes, each eighteen inches wide by forty inches tall. I went

outside and looked to see if a reflection was obvious, and found this to be the case. To test whether the bird was actually attacking its reflection, rather than, for example, simply seeing something inside the library and attempting to gain entrance, I placed a 54 x 14-inch mirror behind one of the panes. The bird first attacked the window adjacent to the mirror, but in the next attack bout attacked the pane directly in front of the mirror.

I went out and found that the although reflection from the mirror was more intense than the reflection from the adjacent window panes, significant reflections were obvious from all three window panes. So I took the mirror outside and stood it up on the ground beneath the central window pane. Subsequently the vireo perched on the limb level with the central window pane and attacked that pane. It then flew off and landed on a branch below the level of the window, and then attacked the mirror. In one bout it attacked a window pane four times from the branch at the same horizontal level, and attacked the mirror three times from the lower branch. This suggests that the bird was in fact attacking its image (it couldn't see objects through the mirror), and that it attacked whichever image was horizontally adjacent to its perch.

From June 1-5, a Red-eyed Vireo beat the windows of the library intermittently. On the morning of June 6, I was in the library at about 5:45 a.m. when I heard repeated raps at the windows. I peeked and found *two* vireos attacking their images simultaneously. I also witnessed this again from outside the house. Apparently a mated pair was defending their territory against the image pair.

A single Red-eyed Vireo, presumably one of the previous year's pair, attacked both front and rear library windows on May 22 and 23, 1998, at which time I was able to take the accompanying photograph of the vireo perching on the window sill following a bout of image-attacking.

The aggressive behavior of image-attacking has been documented in many bird species and has been reported for both males and females, but gender responses are unclear in monomorphic species. Terres (1980), in an entry entitled "Window-fighting, shadow-boxing, or reflection-fighting," cites reports from California (in separate incidents) of a pair of Bushtits and a male Brown Towhee attacking their images in windows; an American Robin attacking its reflection in an automobile hub cap; John Burroughs's 1894 report of a male Eastern Bluebird attacking a window image; and Frank M. Chapman's determination of a male Northern Cardinal's territorial boundaries by noting where the bird ceased attacking its image in a mirror. George Miksch Sutton (1947) reported on a pair of Northern Cardinals in which the female vigorously and repeatedly attacked her image while the accompanying male did not. Since the Red-eyed Vireo is a monomorphic species, it is unclear what proportion of the image-attacks I witnessed in 1997 were by a single individual, and whether the attacks were by the male, female, or both birds.

References

- Sutton, G.M. 1947. A Female Cardinal and Her Reflection. *Bird-Banding* 18:151-154.
- Terres, J.K. 1980. *The Audubon Society Encyclopedia of North American Birds*. New York: Alfred A. Knopf.

William E. Davis, Jr. is a professor at Boston University and a member of the *Bird Observer* editorial board.

Summer in Winter

Where can you see more than fifteen species of hummingbirds this fall without leaving Boston?

The Museum of Fine Arts at 465 Huntington Avenue, Boston, has organized an exhibition of the paintings of Martin Johnson Heade, a nineteenth-century American painter (1819-1904). Heade was a hummingbird and orchid painter who made three trips to Latin America "to depict the richest and most brilliant of the hummingbird family," according to the Boston Transcript. Heade had a vision to produce *The Gems of Brazil*, a book of hand-colored lithographs of hummingbirds, to be derived from specimens rather than from life. He attempted to have his paintings chromolithographed for the book, but this process couldn't replicate the delicate colors of his subjects, and the project failed. You can see sixteen of the forty-five known "Gems of Brazil" at this exhibit, which runs from September 29th through January 17, 2000, at the Torf Gallery of the Museum.

One other aspect of Heade's painting career was his fondness for salt marshes with hay stacks; one room in the exhibit is filled with marsh scenes of North Shore locations that will be familiar to Massachusetts birders. Go see this exhibit! For more information, call the Museum of Fine Arts at (617) 267-3302.

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