

## Southern Exposure

BY ANDY DAVIS AND SONIA ALTIZER

### *New study shows unexpectedly high prevalence of House Finch eye disease in Atlanta, Georgia*

**F**or nearly a year, we'd worked as part of the field research team at the Cornell Lab of Ornithology to understand the dynamics of House Finch eye disease (mycoplasmal conjunctivitis). By trapping House Finches, marking them with identifiable leg bands, and observing known individuals at feeders through time, we had helped to document the proportion of infected finches and their fates in and around Ithaca, New York. So when we relocated to Emory University in Georgia in August 2001, we took the opportunity to initiate a study in the Atlanta area that would provide comparable data from a southern location.

Since Georgia is assumed to be the winter destination of many migrant House Finches, we expected to see large numbers of finches during winter. Based on preliminary data analyses from the House Finch Disease Survey, we also expected to find a higher proportion of finches with conjunctivitis than we had in New York. As it turned out, we found fewer House Finches than we had expected. And even though we expected to find a higher prevalence of disease in the Southeast, the proportion of symptomatic House Finches within our study area around the Emory campus in Atlanta was stunningly high.

Both our trapping and observational data suggest that House Finches are not as common around

the Emory campus as they are in the vicinity of the Lab of Ornithology. Although we observed flocks of up to 12 birds at a time on or near the Emory campus, average flock sizes ranged from 1 to 5 birds. In Ithaca, flocks of up to 40 finches have been observed, with an average of about 14 finches per flock during winter months. Also, feeder use in Atlanta seems very sporadic. We suspect that during Georgia's warm winters, natural food sources are so abundant that House Finches may not depend as heavily on bird feeders as they do in the North. Unfortunately, since we use feeders to draw finches into our traps, we are not able to trap as many finches per person-hour as the Cornell team.

With trapping data provided by the Lab's House Finch team, we can compare monthly changes from the northern site at Cornell with our southern one. Despite our lower sample sizes, the prevalence of disease (proportion of birds with symptoms) has been surprisingly high at our Atlanta site compared with the Ithaca location (figure 1). During October 2001, approximately 75 percent of the finches we captured were infected. During the same month at the Lab of Ornithology, the House Finch research team had captured more than 200 finches, but only one showed any clinical signs of disease. The peak of the fall outbreak occurred in October in Atlanta, with lower proportions

### *Prevalence of House Finch eye disease*

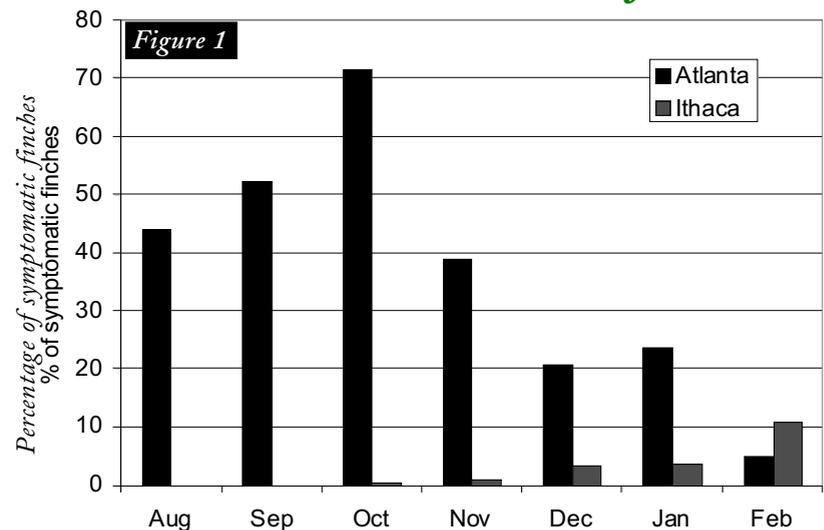


Figure 1. Monthly prevalence of House Finches showing signs of mycoplasmal conjunctivitis in Atlanta, Georgia, and Ithaca, New York during fall and winter 2001–2002. (Monthly samples sizes 18–45 in Atlanta; 64–252 in Ithaca.) The proportion of symptomatic birds in Atlanta was unexpectedly high.

of infected birds in the following months. Meanwhile, no notable fall outbreak was reported in Ithaca, and diseased birds only appeared after November 2001.

We continued to trap birds through February 2002, and noticed differences in the birds' symptoms during and after the fall outbreak. From August through October, many of the birds we captured showed severe symptoms (one or both eyes swollen shut, almost blinding the bird). Birds with severe symptoms tended to be less mobile and had trouble flying and finding perches. However, after the fall epidemic, all the House Finches we saw or captured had relatively minor symptoms of red swollen eyes, and fewer birds experienced simultaneous infections in both eyes. Clearly, we will need to collect more data to determine why the severity of infection varies in different locations and at different times of the year.

We are now planning to expand our project outside the city limits and have been contacted by homeowners who have offered

their backyard bird feeders as research sites. A few citizens outside the city have reported that they sometimes observe 50 or more House Finches on a regular basis, indicating potential differences between our campus location and other areas. With additional data, we hope to determine whether patterns in Atlanta are consistent with infection rates from surrounding areas. ➤

*A female House Finch captured in January 2002 in Atlanta, Georgia, showing only mild symptoms of mycoplasmal conjunctivitis.*



## FROM OUR READERS

*When one vulture finds a dead animal, his neighbors see him and drop in, as do their neighbors, and so on, assembling birds from great distances to the feast.*

—Home Study Course in Bird Biology

### A Toast to the Vultures of Columbus, Nebraska

Each spring for five years in a row, Turkey Vultures have returned to roost in the old cottonwoods right across the street from my home. The first year we had 6 vultures, and last year we had 24. The birds are quiet, coming and going without notice in our town of 20,000 except in our neighborhood. The neighbors have a "Welcome Back Vultures" party with wine and cheese when the birds arrive near the first of April. The vultures stay until early October or the first cold weather.

Our town is in east-central Nebraska, right beside the Loup River and about three miles north of the Platte River. I have heard stories of the vultures going to the river to eat dead fish.

During the summer we have a nightly ritual of going to our patio with a glass of wine to watch the birds spiral down to the trees across the street. I don't know where they winter, but it is just fascinating that these birds can come back to the same trees in the same town each year. I would appreciate any information you can share about Turkey Vultures.

—John Lohr, Columbus, Nebraska

Turkey Vultures have a widespread breeding range, from southern Canada to South America, but very few nest records have been published in Nebraska. Turkey Vultures will indeed wade into water to eat dead fish, and have been observed perching on floating carcasses of manatees and alligators. They use an acute sense of smell, unusual among birds, to detect prey—mostly dead mammals. They've also been known to scavenge shrimp, mayflies, and rotten coconuts.

Roosting communally may provide some food-finding advantages. By keeping within sight of one another when they depart in the morning, they can watch where roostmates congregate around food. Roosts usually have fewer than 100 Turkey Vultures, but one roost in Florida had 4,000. Western and eastern populations (with slight differences in size and coloration) converge in your region. Turkey Vultures from the West may migrate as far south as Brazil; those from the East travel shorter distances, for example from Michigan to Florida. With luck, your vultures will return for many years to come. Turkey Vultures have been known to use the same roosts for decades.

—The Editor

Source: Kirk, D. A. and M. J. Mossman. 1998. Turkey Vulture (*Cathartes aura*). In *The Birds of North America*, No. 339 (A. Poole and F. Gill, eds). The Birds of North America, Inc., Philadelphia, PA.

Although our results from last fall showed very high prevalence of House Finch eye disease, researchers have long known that many wildlife diseases tend to fluctuate over time, with highs and lows occurring from year to year. It is therefore possible that the extremely high disease prevalence observed in Atlanta last fall was related to annual or longer-term cycles, and may not be representative of average prevalence. However, even if this were the case, our data suggest that either House Finches or the pathogen

itself varied between the northern and southern monitoring sites.

To help us understand why, we encourage bird watchers in the Southeast to participate in the House Finch Disease Survey (see page 10). This region is underrepresented in the database, so your observations will be valued highly in our effort to understand the epidemic. ■

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## *The Birds of North America* Nears Completion

*The Birds of North America, Life Histories for the 21st Century (BNA)* is nearly complete, thanks, in part, to the encouragement and enthusiastic support from the Cornell Lab of Ornithology. Supported by The American Ornithologists' Union, the Lab of Ornithology, and the Academy of Natural Sciences of Philadelphia, BNA is the definitive modern reference series on the continent's bird life. The final three of the work's eighteen volumes will be published by the end of this year—the conclusion of a decade-long project that many thought could never be done.

Lab members have bought many copies of the series and in 1998 the Lab joined as a partner in the project, enabling us to keep pace with our publication schedule. You should be proud of your contribution toward this landmark event in the history of North American ornithology.

Nearly 900 individuals and 1,100 institutions now own copies, including wildlife agencies and academic and public libraries. These sales accomplishments have helped the project attain one of its original purposes—to distribute this information as widely as possible. Only 200 copies of the series remain and our goal is to sell all of them this year. If you know of a library interested in purchasing a copy, or if you can donate a copy to your library, contact us today. With one purchase of BNA (or with a gift from a visionary birder), a small library can offer students or visitors a comprehensive collection of reference material on North American birds.

Again, thanks to the Lab for your support of BNA. We could not have gotten this far without you.

—Alan Poole, Editor, *The Birds of North America*

For more information call (888) 373-7900, visit <[www.birdsofna.org](http://www.birdsofna.org)>, or send e-mail to <[bna@birdsofna.org](mailto:bna@birdsofna.org)>.