

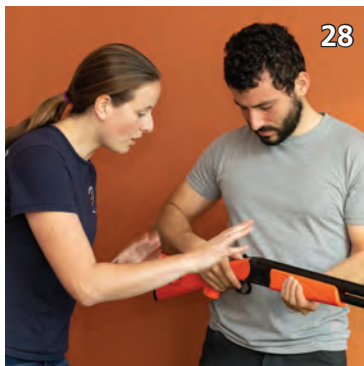
# MASSACHUSETTS WILDLIFE

No. 3, 2019

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**Little Brown Bats,  
Winter Crow Roost,  
Northern Red-Bellied Cooters**



# MASSACHUSETTS WILDLIFE

Vol. 69

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**On the Cover:** Bats, such as these two little brown bats, are highly intelligent and social animals that live in groups called colonies. When bats aren't looking for food or sleeping, they're usually grooming and socializing. Roosting in large numbers provides social interaction, some protection from predators, and temperature stability. Unfortunately, bats have declined significantly over the last decade due to White-nose syndrome and human activity. Massachusetts is home to nine species of bats, five of which are protected. Learn more about bat conservation and how to properly deal with bats in your home at [mass.gov/bats](http://mass.gov/bats). Photo by Troy Gipps/MassWildlife.

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# The Crow Patrol



by **Craig B. Gibson**

Photos © Craig B. Gibson

In American cities from coast to coast, crows gather by the thousands each winter to roost. For decades, both American and Fish Crows have increasingly been moving from rural areas into urban settings gathering in large concentrated groups for the night. Scientists do not understand why crows appear to be seeking out urban settings for roosting more often than in the past. The crows fill the city skylines, seeking escape from the coldest, northern climes; an abundant food supply; a safe place to sleep; and community. Crows are smart, social, family oriented, and fascinating to watch.

One such winter roosting site is Lawrence, Massachusetts. Densely populated within a landscape built by and for industry, this urban environment along the Merrimack River would not appear to be a natural habitat for wildlife. And yet, for decades, crows have been coming to Lawrence. Some crows are local. However, the majority have migrated from breeding grounds anywhere from

100 to possibly 500 miles to the northeast, far into the southern provinces of Canada. The group includes adults as well as juveniles. The phenomenon starts in late September with the arrival of a few-hundred crows. Their numbers grow significantly throughout the winter and then start to taper off around the end of February and early March. During the 2018–2019 season, there were more than 25,000 crows each night in Lawrence.

The winter crow roost in Lawrence offers many opportunities, not only to study the birds, but also establish educational and cultural events celebrating the mystery and magic of the crows in winter. Last season, a group of us helped to do just that, demonstrating how, even in our most congested cities, there is a place for interplay between wildlife and humans.

## The Crow Patrol

Dana Duxbury Fox, Bob Fox and I are local, amateur birders. Dana and Bob have been observing the crow roost for a number of years. As a bird and conservation photographer, I've spent many years photographing birds and had been loosely observing the crow roost in Lawrence. In the fall of 2017, Dana and Bob

invited me to join them to chronicle the roost. As the three of us spent more time together, we took on the nickname of The Crow Patrol. Our mission is to chronicle the winter crow roost in Lawrence by observing, monitoring, documenting and photographing this amazing sight; to learn from it; and to share it with others.

## Phenomenon in Lawrence

An hour before sunset, the crows gather in smaller, pre-roost groupings in various staging locations. These staging locations may change on any given night, possibly to confuse predators. The crows then converge into the final roost at a location nearby. Some crows may start as anchors in the final roost just before sunset. Then most other crows join after sunset. They fly in over the following hour, until the roost quiets down completely for the night.

It is a giant, avian slumber party.

During the 2018–2019 season, The Crow Patrol undertook more than 160 combined observation nights. Through detailed notes and photographs, we carefully documented our observations, including timing; streaming; flight lanes; staging and roosting locations; weather



Photo © Craig B. Gibson





and lighting conditions; and much more. Using Bob's disciplined counting methodologies, we recorded the number of birds in motion, in trees and on the ground.

## Sharing With Others

Part of our mission is to share what we learn. From early on, Dana and Bob had been providing regular updates about their observations to Wayne Petersen, Mass Audubon's Director of the Massachusetts Important Bird Areas program, who has been fascinated with crows since childhood. Over the first 12 months of its existence, The Crow Patrol reached out further to a variety of scientific and avian experts and to local conservation and environmental groups, including Merrimack River Watershed Council, Merrimack Valley Bird Club, Andover Village Improvement Society, and Groundwork Lawrence.

We also engaged the broader community by regularly posting our observations on eBird and birding listserves in Massachusetts, New Hampshire and Maine as well as on the Crow Patrol blog ([wintercrowroost.com](http://wintercrowroost.com)). The response to the blog indicated to us how popular the crow roost in Lawrence was becoming. From September 2018 through May 2019, more than 3,220 users visited the blog. In addition to the activity listed above, the blog contains an extensive collection of academic research papers on Winter Crow Roosts and news stories.

As a result of the Crow Patrol's outreach, local birders and others interested in environmental and conservation issues started to join us on our observation outings. We gathered in places like the New Balance factory complex parking lot, a central spot, or the garage rooftop of the MVRTA McGovern Transportation Center, which provided a key vantage point. The fifth-floor rooftop offered clear, elevated views to the east, south and west, allowing us to watch the crows as they streamed into the staging areas and eventually gathered into the final roost. The crows would roost in the trees along the Merrimack River by the Duck Bridge. Describing how the sky was filled

## **The Crow Patrol:**

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# **Fostering the Interplay Between Wildlife and Humans in an Unlikely Urban Environment**



**The winter crow roost in Lawrence has provided an excellent opportunity to establish the foundation for a new citizen science project, [wintercrowroost.com](http://wintercrowroost.com)**



Photo © Craig B. Gibson

with the birds, Lara Mataac, a volunteer with the Merrimack River Watershed Council said, “We had crows using the river almost like a highway.”

## Citizen Science

The winter crow roost in Lawrence has provided an excellent opportunity to establish the foundation for a new citizen science project. Recent studies have shown that involving volunteers in hands-on inquiry and discovery helps to address a range of possible environmental and conservation issues. Collaboration between scientists and volunteers leads to broader inquiry and generates greater knowledge and insights on many types of bird behavior. Volunteers want to be outdoors; learn about bird behavior; and observe, monitor, collect and report bird behavior and patterns. These efforts often contribute to new scientific insights and discoveries. The work of observing and documenting the crows being conducted by The Crow Patrol and the growing number of volunteers joining us in Lawrence has already contributed

significantly to the base of understanding of behavior and patterns around a winter roost. As we move forward, we hope to enhance our methods and increase this understanding even further.

## Research and Study

The avian biologists we connected with were interested in the daily and nightly movement of the crows, and several discussions took place regarding potential research.

Wayne Petersen joined us in a meeting with faculty members headed by Sarah Courchesne, DVM, Associate Professor, Biology Program Coordinator, Department of Natural Sciences, at Northern Essex Community College in Haverhill, to explore possibilities for a research project on the streaming, staging, and roosting patterns of the crows.

Sylvia Halkin, Ph.D., a field biologist, long-time crow enthusiast, and Full Professor of Biology at Central Connecticut State University, has been collaborating with us in regard to the critical elements

that will need to be included in a proposed research project.

Andrew Vitz, Ph.D., State Ornithologist, MassWildlife, became interested in movements between the overnight communal crow roost and foraging grounds in winter months and then the migration routes back to breeding grounds. After encouragement from Dana and Bob, he is exploring methods and structure for a research project.

The roost also provides a great opportunity for the collection and analysis of pellets from the wintering American and Fish Crows because the number of birds is so high. Tom French, Ph.D., who has recently retired from MassWildlife, Natural Heritage and Endangered Species Program, performed a detailed analysis of pellets collected from the truck depot's parking lot along South Canal Street. Pellets are regurgitated capsules that contain the indigestible material a bird eats, such as sclerotized (rigid) parts of insects, chaff, pits, bones, and eggshells. The pellets are regurgitated after arrival at the roost, often within two hours.

## Artistic Community and Conservation Groups

Another exciting part of our work as The Crow Patrol is how we have been able to connect with the extended Lawrence community through arts and conservation groups. With the objective of broadening awareness and understanding, we teamed up with Cathy McLaurin, Executive Director of the Essex Art Center in an arts partnership. Located in Lawrence, the center opened up three of its galleries to create a

two-month, crow-themed exhibit that included bird photography, videography, and artistic contributions from community members.

Working with the arts center, we helped to organize gallery tours, arranged informative talks, and took people on guided walks to observe crow staging and roosting. This allowed us to connect more deeply with conservation groups. Wayne Petersen helped to coordinate a Mass Audubon Society event for leadership donors to the art center. The afternoon activities included a gallery tour, an introduction by Wayne, a crow talk by Dana and Bob Fox, and a guided field tour. The event was sold out with a waiting list. The Merrimack River Watershed Council, whose mission is to improve and conserve the Merrimack River Watershed for people and wildlife



Photo © Craig B. Gibson





through advocacy, education, recreation and science, brought its members and friends to the center for two events. The first event included a gallery tour. I gave the introduction. Dana and Bob gave a crow talk, and together we provided a guided field tour. It was co-sponsored by Merrimack Valley Bird Club and Andover Village Improvement Society (AVIS). Again, the event was sold out with approximately 50 attendees, and there was a waiting list. The Merrimack River Watershed Council returned in March for an event called Crows and Cocoa. Designed for families and children, it was more casual. I presented an informal talk on staging and roosting. The following guided field tour was conducted before and after sunset around the Abe Bashara Boathouse, part of the Greater Lawrence Community Boating property at the end of Eaton Street along the Merrimack River. More than 50 adults and children attended.



## Youth Education

An important part of our outreach has been to local youth. We worked with Groundwork Lawrence and their Green Team, an organization that promotes environmental, economic, and social well-being, to bring high-school students into the Essex Art Center. Matt Morin, Education Program Manager brought the students in for a tour of the gallery. I presented a talk providing an overview of the crow exhibition and what to expect in the field related to the staging and roosting of the crows. The group then headed out for a field visit at the Bashara Boathouse, located in Lawrence, to observe crows staging and roosting along the Merrimack River.

We worked with Karen Kravchuk, Director of Education for the Boys and Girls Club of Lawrence, to encourage the creation of a learning program for lower-school students. She brought in team members from Lawrence Arts House, an

expressive arts studio that encourages creative exploration and expression through the arts. Karen also engaged the Andover Breadloaf program at Phillips Academy. Lou Bernieri, Director of the program, helped create a variety of activities for students of all ages. Lower-school students worked with Breadloaf-trained high school writing instructors to create crow-themed artwork and essays, resulting in an exhibit. Lawrence High School biology teacher Rebecca Veullieux joined us for a guided field tour to observe the staging and roosting process with an eye towards involving high school science students the following year.

## A Matter of Perspective

Lawrence is not the only city where this crow phenomenon takes place. However, the crows are not universally welcomed. In fact, often cities deal with the roost as a pest problem, or, at best, are neutral regarding the birds. But as Lawrence has demonstrated, that does not have to be the case. The winter crow roost in Lawrence has provided the catalyst for an unfolding story about citizen science,

community outreach, and the opportunity to not only live in harmony with our fellow creatures but also to learn from them. This unlikely urban environment has become nature's playground. The effort has had a growing impact from a social and educational dimension as we celebrate with members of this extended community the remarkable avian phenomenon that is taking place right in their backyard.



## About the Author

*Craig B. Gibson is a bird conservation photographer who has photographed birds from Alaska to Antarctica. His current focus is on everything related to the Winter Crow Roost. Craig's crow photos have appeared in the Essex Art Center exhibition; Bird Observer, a New England-based, bimonthly journal for birders; Mass Audubon publications; the Eagle Tribune newspaper; The Cornell Lab Bird Academy's new, online course "The Hidden Life of the American Crow;" and in a new addition to the Peterson's Guide series that focuses on bird behavior. He is one of the founders of The Crow Patrol.*



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