

Living Wild

Sentinels: Wildlife Rehabilitation and Public Health

by John Hadidian, PhD, member of
City Wildlife's Board of Directors

What role could an organization like City Wildlife play in protecting the health of people? None, you might say — City Wildlife's purpose is to help injured and orphaned wildlife. But in fact our center helps people by providing a place where wildlife can safely be surrendered to professional care. Otherwise, well-intended individuals could be tempted to try caring for an injured or sick animal themselves — a compassionate act that unfortunately can lead to inappropriate care for the animal and potential injury or disease for the caregiver. That's one way.

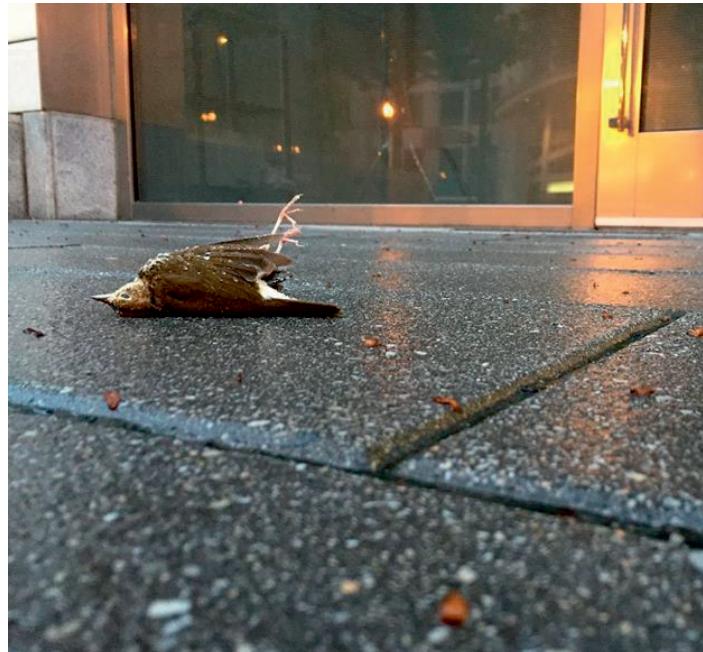
There is another way that is perhaps even more relevant today as the links between wild animal diseases and human health (zoonoses) have become globally relevant. Wildlife rehabilitation facilities can serve as early warning centers for the presence of environmental hazards, as well as for the emergence of disease in local wild animal populations.

Consider the proverbial “canary in the coal mine.” This maxim is traced to Scottish physician J.B.S. Haldane, who argued in the 1890s that small animals such as mice and birds could serve as miners’ early warnings of the presence of toxic gases in coal mines, an ever-present concern and danger. Haldane reasoned that, with their higher rates of metabolism, the animals would feel the effects of accumulating gases well before humans. Alert miners could rush out of the mine with their charges (who usually resuscitated) before succumbing themselves. Canaries were the most common and popular sentinels thanks to their general good cheer and pleasant song, and they served in British mines until replaced by electronic sensors in the 1980s.

By then the science behind animals as sentinels seemed ripe enough for the U.S. National Academy of Sciences to convene a workshop of experts to review its scope, leading in 1988 to the publication of a now classic report entitled “Animals as Sentinels of Environmental Health Hazards” (<https://www.ncbi.nlm.nih.gov/>). The authors of this report codified what the scientific community was increasingly finding: animals, including those on farms, in our homes, and in the wild, could be used to reveal and pinpoint health...

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Fall 2020



Lights Out DC Turns Ten

by Lisbeth Fuisz, Lights Out DC Coordinator and member of
City Wildlife's Board of Directors

This year *Lights Out DC* (LODC), a program of City Wildlife, is celebrating its tenth anniversary! City Wildlife could not have done this program without a dedicated group of volunteers and the support of DC residents. Since 2010, LODC volunteers have been monitoring for bird/glass collisions in specified areas of downtown DC during spring and fall migration seasons. Thanks to these committed volunteers, LODC has operated continuously over the past ten years, documenting bird/glass collisions, rescuing injured birds, identifying problematic buildings, and working with the owners and managers of these buildings to reduce hazards to birds. From 2010-2019, LODC documented 3,067 window strikes, the victims of which include 105 species of birds, 24 of which are on the District of Columbia’s list of Species of Greatest Conservation Need (SGCN).

Such data points have been used by LODC for advocacy purposes, allowing us to reach out to owners and managers about the problems their buildings pose to birds and to offer suggestions on how to mitigate these problems. The Walter E. Washington Convention Center, for instance, took seriously...

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Dear Friend of City Wildlife,

City Wildlife exists at the intersection of two worlds, the human and the animal. These worlds are distinct but they are not separate. In fact, the two worlds often collide, and City Wildlife's mission is to take care of those who are hurt when they do. Mostly, those are the animals, the more vulnerable of the two groups. Nearly all of our wild animal patients have suffered an injury of which humans are the ultimate cause. They have been hit by cars or lawn mowers, have had their homes destroyed when trees or bushes are taken down, have been poisoned, attacked by our pets, or caught in traps. Some have hit windows, as Lisbeth Fuisz explains in her article on *Lights Out DC*.

But sometimes it is the other way around. City Wildlife helps people by helping the animals they are desperate to see rescued. We also help people who have unwanted animals in their homes. And as John Hadidian's article points out, we

are constantly checking our patients for any sign of disease or environmental hazard that may also be dangerous to humans.

Many people pay little attention to the animals in our community, as if their world was totally unrelated to our own. But that's not the case; the two worlds are thoroughly intertwined. It is imperative that we learn to coexist safely and, if possible, to allow all the members of our mutual community to thrive.

Thank you for sharing this vision of a peaceable kingdom and for supporting its development with your donations.

With all our gratitude,



Jim Monsma, Executive Director

Sentinels: Wildlife Rehabilitation and Public Health

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...hazards such as antibiotic-resistant microbes, pollutants in the surrounding environment, accumulations of heavy metals, or concentrations of toxic chemicals.

Even earlier, medical science had noted that many human diseases could be traced to contact with animals, especially those being raised in food production. The role of wild animal populations was less explored and understood, but it did begin to attract notice after the 1924 creation of the Office International des Epizooties (OIE). Now The World Organization for Animal Health (WOAH), this organization serves to coordinate and internationalize the study of animal/human health relationships. Among its other functions, the WOAH promulgates guidelines and protocols for the collection and dissemination of information on emerging disease threats, including recommended procedures for surveillance, monitoring, and survey. Surveillance is key to documenting potential threats. It can be conducted passively, when an issue is identified in the course of other activities, or actively, after a threat has been identified.

“Surveillance for disease is an essential part of everyday operations at City Wildlife.”



Health checks are conducted on all animals admitted to City Wildlife.

...transmitted to humans than they were. The recent H7N9 avian influenza, for example, involves significantly higher (upwards of thirty percent) mortality (<https://www.cdc.gov/flu/avianflu/h7n9-virus.htm>). The potential for such disease transmission has made surveillance and monitoring of wildlife populations critically important.

This brings us back to wildlife rehabilitation, where surveillance is an essential part of everyday operations. First, health checks are conducted on all animals admitted to the facility: a professional evaluation and assessment process is followed with testing as needed. Next, because the facility has trained animal health professionals documenting admissions, clusters of cases can be recognized and referred to appropriate agencies (such as The National Wildlife Health Center in Madison, Wisconsin) for further testing and evaluation. To be sure, local wildlife rehabilitation centers play only one part in the network of organizations we need to augment in the future. But they may provide some of the very earliest information needed at a local level. Research indicates that such timeliness may be especially critical in urban areas, where disease risks may be elevated due to high human densities and close proximity of people and wild animals who are comfortable living near people.

This is the time to think about and prepare for the challenges we know will be coming and to keep every resource that might contribute to protecting public safety working toward that end. That is why we feel protecting people is an essential part of City Wildlife's mission.



Lights Out DC Turns Ten

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...LODC's recommendations and installed bird-safe film on an overpass where numerous collisions had been documented by LODC volunteers. The bird-safe film led to an impressive 88% reduction in bird strikes in that location. Our upcoming Ten Year Report, which will be released later this year, describes in further detail LODC's findings and advocacy efforts.

What does a LODC volunteer typically do when monitoring? During the spring and fall migratory seasons, volunteers venture out in downtown DC on foot, by bike, or by car from approximately 5:30 - 7:00 a.m., looking for injured and dead birds. Many species of birds migrate at night, so monitoring occurs early in the morning to prevent glass-collision victims from being swept up by cleaning crews or eaten by predators like crows, gulls, and rats. Volunteers collect dead birds and place them in individual plastic bags, which are labeled with the location of the collisions and the species of birds. Injured birds are collected with nets and placed in individual paper bags, where they are safe to recover in quiet and darkness. These birds are then transported to City Wildlife's rehabilitation center, where they are treated for their injuries.



Birds found on morning in the fall of 2019.

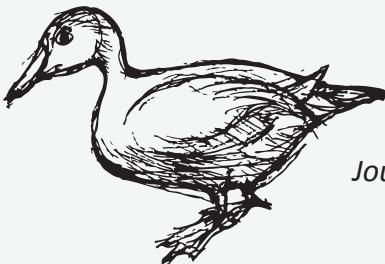
When volunteers are done with the day's round of monitoring, they log their findings into a LODC database. These data, besides enabling advocacy, are used by scientists in their study of birds. LODC has collaborated with organizations such as the Smithsonian's Museum of Natural History, the Smithsonian's National Zoo, UCLA's Bird Genoscape Project, and The Maryland Ornithological Society. LODC data was included in Scott Loss, et al.'s 2014 "Bird-building collisions in the United States: Estimates of annual mortality and species vulnerability," an important study that has estimated that approximately 300 million -1 billion fatal bird/glass collisions occur annually in the United States.

This figure represents approximately five percent of the entire fall migratory bird population and contributes to the recently reported 29 percent decline in North American bird populations since 1970. Thus, bird/glass collisions represent a serious threat to many species of birds, a threat LODC and fellow organizations are working hard to reduce.

City Wildlife's Virtual Celebration

"Welcome to the Wild Side"

A fundraising event from the comfort of your home



Master of Ceremonies: John Kelly

Washington Post columnist

Speaker: Brandon Keim

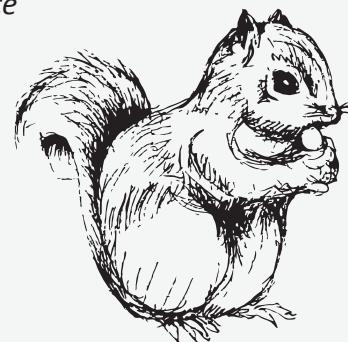
Journalist specializing in animals, nature, science

Tour the City Wildlife Center

Toast Local Wildlife Heroes

Door Prizes

Live Chat Rooms



Save the Date: December 3, 2020, 7:00 pm

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City Wildlife Inc as your charity.
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injured and orphaned wild animals
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There are many ways to keep up to date on what City Wildlife is doing and how you can support our work:

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instagram.com/dccitywildlife
twitter.com/DCCityWildlife

And if you find an injured wild animal, call us 202-882-1000.
We are located at 15 Oglethorpe Street, NW, Washington, DC 20011

