

Effects of Feral and Outdoor Cats on Native Bird Populations

Enclosed Outdoor Cat Spaces Will Help to Limit Bird Attacks and Deaths By Cats

Tag Words Feral cats, outdoor cats, bird population, invasive species, cat attacks, bird deaths, catio, indoor cats

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Summary

Outdoor and feral cats cause a huge impact on wild bird populations. Out of the 5 billion birds that die each year, nearly half of them are killed by cats. The introduction of an education program and “catios” in Hillsborough, New Jersey may be able to help protect wild birds in the area.

Video Link: <https://youtu.be/O8zCSUnNhhs>

Decline of Wild Bird Population in North America

As of 2014, there are currently 33 species of North American birds that are considered to be in steep decline. Among them are birds as well known as the Common Grackle, as well as multiple species of sparrow, and ranges to birds as mesmerizing as the Snowy Owl. These species have lost half or more of their population globally in the past four decades, keeping in mind they are not the only birds that are currently seeing a decline in North America (1). While it may be possible to stabilize these populations through country-wide efforts, the wary tale of the Passenger Pigeon serves as a reminder of how quickly bird populations can plummet. In just 40 years, the population of the passenger pigeon went from a few billion to extinct (1). For 33 species to be in steep decline out of the 914 species found naturally in North America may seem trivial, but if left unmonitored and untreated, the number of bird species in steep decline will increase.

Birds are an important factor in the North American ecosystem. Many species are involved in the dispersal of plant seed and pollen (2). When seeds are dispersed, it gives rise to a new plant which can then become food or shelter for other forms of wildlife. They are also involved in the biological control of insects, which benefits North American agriculture, as well the general human population.

It is estimated that 5 billion birds die every year, a large portion of which die from natural causes. The natural deaths are not a large focus, as they are not the reason many of the bird species are coming into decline. Humans have made a large impact on bird populations, especially as society has advanced (3).

Outdoor Cats in the United States

Often, people assume that cats hunting and killing North American wildlife is part of nature and the complicated way our ecosystem works. This is partially true, domestic cats are natural hunters, stemming from their big cat relatives. The problem in North America is that these domestic cats are not indigenous to this area. Domestic cats descended from wild cats found originally in Europe and Africa (4). Cats as pets who remain indoors for the duration of their lives pose no threat to wildlife, but once they are released into the an ecosystem that they are not native to, they become a harmful invasive species. Local birds are not well suited to evading cats due to this and often fall prey to their attacks.

It is estimated that there are a many as 96 million cats owned as pets in the United States (5). While there is no concrete data on how many of these cats are allowed to be outdoor cats, the Humane Society of the United States mentions that outdoor cats can be found in most residential areas across the country (6). Another major problem is the stray and feral cat population in North America. Estimates currently state that there could be up to 70 million stray cats living in the United States (5). These numbers are higher than they have ever been. In 1990, it was estimated that there were around 53 million cats. That number has nearly doubled since then (7). This increase in cat population means that there are more cats to act as predators of the birds.

Harmful Effects of Cats on Wild Birds

The harmful effects of outdoor and feral cats are noticeable. The State of the Birds 2014 Report shows that 2.4 billion birds are killed annually by cats (8). Out of the 5 billion birds that die each year, nearly half of them are killed by cats. This makes cats the largest threat in bird mortality than any other factor, including wind turbines, collisions and pesticides (9). An individual feral cat is capable of killing upwards of one hundred birds an entire year. Even a well-fed cat will kill birds and other small wildlife due to their predacious nature. During fledgling season, which occurs in late spring and early summer, birds are especially susceptible to cat attacks (4). During this time, there are an increased number of birds on the ground, with a large percentage of those birds unable to fly. Bird will generally form their nests in places that are safe from other native species, such as in bushes and shrubs, but do not consider where they will be safe from cats as cats are not a native predator. Due to this, cats are more likely to attack once the bird leaves the nest as a fledgling. Fledglings do not yet have their ability to fly, get food on their own, and are most likely incapable of escaping predators (10). The fact that fledglings are restricted to the ground and low branches means that they are more likely to be seen by cats and more likely to become a victim to a cat attack. With no way to fly from the cat, the fledgling becomes helpless once the cat attacks them. Unsuspecting adult birds can also fall prey to domestic cats.

Pasteurella multocida and Bird Mortality

Occasionally, a bird may be able to escape after already having been attacked by a cat. While it may seem as if the bird will be able to recover from its injuries, this is often not the case. Cats have many types of bacteria in their saliva which are known to cause illness in humans and other animals. Pasteurella bacteria is found in the oral cavity of most cats, as well as many other species of animal (11). Pasteurella is also referred to as avian cholera (12). Even in humans, *Pasteurella multocida* can cause serious infections. Local wild birds are significantly smaller than humans, therefore the bacteria has a much more devastating effect. Pasteurella in birds can cause severe septicemia which will ultimately end in death (11). Septicemia is a blood infection that can cause a total failure of a bird's organs. Once the bird is noticeably ill septicemia, the

chances of rehabilitating them back from their illness become severely reduced (13). Birds infected by *P. multocida* generally decline to their death 12-24 hours after they were bitten by a cat, leaving a very short window of time for the bird to be successfully treated (11). Generally, when someone notices a bird that may have been attacked by a cat, the bird is already displaying symptoms such as a slow response rate or inability to fly. This means that most birds that are found and brought to an avian rehabilitator will have a low chance of survival (12). Since the bacteria in a cat's mouth is so devastating to birds, once a bird comes in contact with a cat, the cat will either kill the bird quickly or it will die slowly.

Well-fed cats just as likely to hunt

There are often "solutions" created to help stop the decline of the bird population while being minimally invasive to cats and their owners. These methods may seem like they should be effective, but seldom have any effects on the bird population. Many people believe that if their cat is well-fed, it will not hunt wildlife. Cats generally do not hunt due to hunger, but rather due to a natural instinct that is innate in all cats (4). Even a cat that has just eaten food given by an owner will still go to hunt if there are small animals in a nearby area. Just feeding your cat well will not help to improve the bird population.

Bells on collar show no effect on birds

Another myth is that attaching a bell to your cat's collar will help scare birds and other wildlife away when the cat is near. Studies have been done showing that a cat with a bell on the collar is no less likely to catch a bird than a cat with no bell on the collar. This is because the sound of the bell is not a sound that birds associate with imminent danger (4). Birds may not flee the area when they hear the bell since there is no meaning attached to the sound of the bell. Even if the sound of the bell was enough to cause the bird to move, there are many cats that learn to hunt without causing the bell around their neck to ring (4). Bells are overall an ineffective way to remedy the bird population issue as bells have little to no effect on bird mortality.

Limited positive effects from Trap, Neuter, Release (TNR) programs

The final attempted solution is the widely used "trap-neuter-release" (TNR) program. This program consists of stray cats being trapped and brought in to veterinarians to be neutered. Once the cat is neutered, they are released back into the wild (14). Cat colonies are impossible to manage in this way. There is no possible way for people involved in TNR to trap every cat and neuter them. There will always be cats continuing to reproduce and then more cats are born which then may be able to reproduce (4). In addition, there will always be pet owners who will release their unfixed cats into the wild, allowing them to reproduce as well (15). Even the cats that become neutered are a continuing problem. Neutering the cats will not stop the attack on native birds. TNR has no effects on the native wildlife population as the cats are just released back into the wild (14). There is currently nothing in place across the United States that successfully helps reduce the number of cat-related bird deaths each year.

Statistics on TNR

A study done in South Florida feral cat colonies shows that even when a TNR program is utilized, an increase in the population was still seen. While certain cats in the colony are being neutered, people are constantly releasing cats into the wild. These cats then reproduce and increase the feral cat population even further (16). While TNR programs may initially have an

impact on the cat populations, the birds and wildlife are still being affected by the cats' predation. Feral cats generally have a lifespan of 2-3 years. If the colony is being maintained and fed by a human, the lifespan increases toward close to 10 years (17). In addition, some cats may be missed or confused with cats previously neutered. These cats can reproduce. In the span of 7 years, it is possible for two cats and their kittens to produce 420,000 offspring. This is due to the fact that a cat has litters from 1-8 kittens and can have 2-3 litters a year (18).

Community Action: Attempt to Minimize Outdoor Cats in Hillsborough, NJ

While it will not change the entire fate of the bird population, there are possible solutions that can remedy the issue with cats. The first thing that can be done in the town of Hillsborough, NJ is for information about the dangers of letting pet cats outdoors to be distributed to citizens via the town's Facebook page, as well as pamphlets placed in local businesses and veterinary offices that allow it. These pamphlets will discuss the impact that outdoor cats have on wildlife. There are many people who are unaware that cats are considered invasive in the United States and would be surprised to know that cats are responsible for nearly half of the bird deaths that occur annually. Education about the problem is the first step. There are many cat owners who may not be concerned with the bird population and will continue to let their cats out, so it is important to educate them on risks to humans from outdoor cats and also the risk that their cat is in once they allow it outside.

Sharing information about how cat feces contains many types of harmful bacteria, such as toxoplasmosis, that can easily be picked up by passer-bys and cause serious health issues is something to be mentioned. This may cause non-cat owning neighbors to form an opinion about roaming cats in their neighborhood. These neighbors may then voice their concerns about the outdoor cats, prompting the owner to keep their cat indoors. Fleas and ticks are also a concern for pet owners. Cats can pick these up while outdoors and it can be timely and costly to deal with them. The idea of having fleas in their home may repel cat owners from allowing their cats outdoors.

In addition, information about the quality of life of outdoor cats should be mentioned in order to appeal to the pathos of the pet owners. If the owners were aware how much risk their cat was at when they were outside, there is a chance that they would rethink their decision to allow their cats outdoors. Indoor cats generally live anywhere from 15-17 years, while an outdoor cat has a lifespan closer to 3-5 years (19). This is a large decrease in the lifespan of their cat, and most animal-loving people will want their pet to have the longest life possible. Among the causes of death in outdoor cats are being hit by cars, larger predators and disease. These 3 issues can quickly be solved by bringing cats indoors. While this solution may seem to focus on the care of cats, it is an easier way to entice the "cat people" into bringing their cats indoors. Many times, people fail to see the importance of birds and are set in their way of how they do things. Convincing people to bring their cats indoors is difficult, but it is also possible if people are targeted the correct way.

There will be people who will argue that cats need to be outside for exercise, and that is a valid point. While it may be a valid point, letting cats have free roam of the neighborhood is not the solution. "Catio" may be the way that cat owners can compromise. The term "catio" refers to an area, such as a patio that has been transformed into an enclosed outdoor space for cats. They

include many surfaces, levels and textures for the cats to climb on, and have enough length and height for the cat to move freely in. Cat owners may then opt to design their own catio. There are a few companies that will design a space just for your cat. For a marginal fee, they also show simple directions online on how to create your own catios and outlines the supplies needed. Links to these websites will be included in the brochures for citizens to reference so they can create their own outdoor cat enclosure. In the educational brochure, information about catios and their benefits will be included. Between learning about the dangers to wildlife, other citizens and their own cats, cat owners may feel inclined to take on the project of creating a personalized catio for their cat, and not allowing their cats free roam outdoors.



Example of a catio (20)



Window catio (21)

Since catios can be so creative, cat owners can make them as elaborate or simple as they'd like. They can also be specified to the personality or activity level of the cat. There are also window catios that can be inserted and removed from windows easily when the owner wants to allow their cat outdoor time. There is a catio that is suitable for almost all cat owners in Hillsborough.

The versatility of them is what makes them so feasible for nearly everyone.

Effects on Wild Birds

- Cats are the #1 leading cause in bird deaths, accounting for nearly half of the birds that die annually. To put a number to it, **2.4 billion birds are killed by cats each year.**
- Cats are an invasive species, meaning they do not belong in New Jersey's ecosystem.
- Due to bacteria in a cat's mouth, even a bird that escapes will most likely not survive.
- During fledgling season, baby birds move around on the ground, making them easy targets for cats.



"Catios"



Links to catio information:

www.just4cats.com

www.habitathaven.com

www.catiospaces.com

... or simply search "catio" online for more ideas!

Outdoor Cats:

Harmful to wildlife, human health and your cat itself.



Why letting your cat outdoors may be harmful to the community in more ways than you know. Keeping your cat indoors may stop this harm from occurring.

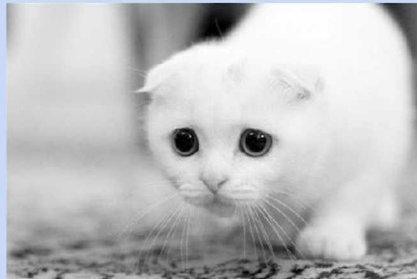
Harmful to People

- Cat feces contain harmful substances that can cause illness, such as toxoplasmosis.
- Toxoplasmosis can have flu-like symptoms but also can cause permanent damage to the brain, eyes or other organs.
- It is easy for people to come in contact with this outdoors if there are outdoor cats in the area.
- Uninfected cats will become infected once in contact with an infected cat.



And what about your cat?

- Indoor-only cats have a lifespan of 15-17 years
- Outdoor cats have a lifespan of 3-5 years.
- Outdoor cats have to face extreme weather conditions, predators, risk of disease and are often hit by cars.
- It is a pet owner's responsibility to keep their pets safe and healthy. Allowing your cat to roam freely does neither of those things.
- Indoor cat= Safe cat



But my cat likes being outside...

- Many cats enjoy the outdoors, but it is not safe to allow your cat out.
- A creative compromise to this problem is a “catio”.
- A catio is an enclosed outdoor space designed specifically for your cat so that it can get all of its enrichment and entertainment outdoors.
- Catio's can vary widely in price, style and can even be made at home, so they are an option for all cat owners, regardless of house location or size.
- This outdoor cat space can be decorated and designed specifically for your cat's preferences.
- Knowing that your cat is in an enclosed space means knowing that your cat is safe at all times.

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Letter to the Editor

Dear Editor:

Over the recent years, the wild bird population in the United States has been in decline. The birds in our area are no exception to this. There are multiple causes to this decline, but the largest culprit by far is outdoor and feral cats, of which there are many in Hillsborough. Cats account for nearly half of the bird deaths that occur annually. Outdoor cats are considered an invasive species in the United States and cause immeasurable damage to our ecosystem. Our native wildlife are evolutionarily unable to protect themselves from these killer cats. There are many citizens that believe it is beneficial for their cats to hunt and be outside. In reality, their cats are leading local wildlife populations and are inadvertently breaking the Migratory Bird Treaty Act of 1918. This act states that it is illegal to injure or kill any native species of bird, which is what citizens unknowingly do when they allow their cats outside to hunt. Not only are these birds a pleasure to watch, but they also play a key role in our ecosystem, spreading seeds, pollinating flowers and keeping insect populations in check.

Hillsborough must find a way to educate the public on the detrimental effects of letting cats outdoors, and needs to hold citizens responsible for allowing their cats outdoors. Equipping citizens with the information regarding the dangers of letting their cats outdoors in terms of human health and wildlife safety would reduce the amount of people letting their cats roam outdoors freely. I would suggest that cat owners look into erecting a "catio", which is an enclosed outdoor space, similar to a patio, made specifically for your cat. It offers a way for your cat to get outdoor time without being able to hunt local birds.

Sincerely,
Eileen Rudio