

Consequences of feeding waterfowl in public parks

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The Issue

It is traditional for people living in towns and cities to stroll through the public parks and feed the ducks and geese. It is widely believed that such activities are productive in that they offer nutrition to waterfowl, present entertainment for the family, and in today's urbanizing society, provide an opportunity for people to interface with nature. However, supplemental feeding of wild waterfowl has several negative consequences that may not be readily apparent to the average citizen. These repercussions may impact not only the ducks and geese, but also the regional environment and public health.

Why supplemental feeding of waterfowl should be banned

1) *Overcrowding*

In the wild, the term "carrying capacity" refers to the population size for the species that can be supported indefinitely by the environment. Supplemental feeding in public parks artificially raises the number of individuals (ducks and geese in this case) beyond what the pond can normally support. Increased waterfowl abundance leads to increased competition for food. As a result, the weaker birds often sustain pecking injuries from more dominant birds that can result in infection and a general failure to thrive. During the spring breeding season, gangs of male ducks physically attack each other to get access to female ducks. This not only leads to plucked featherless areas and skin lacerations, but females often drown as they cannot escape the driven males. Females that manage to escape the male ducks often nest up to a mile away from the water but still within the confines of the town or city. This abnormal nesting behavior puts them at risk of urban predators, vehicle collisions and perils not associated with nesting in natural areas.

2) *Habitat degradation*

Large numbers of ducks and geese in a small area can have a serious impact on the surrounding environment. Feces generated by congregating waterfowl results in increased deposition of carbon, phosphorus, and nitrogen in the water and surrounding grasslands. The addition of these nutrients to water (a process known as eutrophication) promotes excessive algae growth leading to decreased oxygen levels, foul-smelling green and cloudy water, fish kills, and an overall decrease in water quality. In addition, some common algae species (blue-green algae) produce toxins associated with illness in wildlife, humans, and pets.

Certain species of waterfowl may also be destructive to the environment by way of their natural foraging strategies. Canada geese graze on grass and other low-growing plants and, when in large flocks, often destroy lawns and gardens surrounding city ponds. If these birds cannot find enough food, they often migrate short distances to golf courses, sports fields and other grassy public areas yet still use the public park as a “home base”. Increased waterfowl populations can also lead to erosion of shorelines and a general negative public opinion of ducks and geese.

Disease among waterfowl

Disease transmission is better facilitated under dense population conditions. There have been numerous outbreaks of botulism, avian cholera, duck plague (duck enteritis virus), and aspergillosis (fungal infection) in city duck ponds that may have been avoided if a ban on supplemental feeding existed. The intense competition for poor quality food and other stressful interactions combine to suppress the immune system’s ability to resist infection, thus promoting disease.

It should also be noted that unconsumed food scattered by people attracts scavengers such as raccoons, opossums, crows, gulls, pigeons, etc, that may not be welcome in a public park. Dense populations of these scavengers bring the potential for further disease outbreaks such as the recent increase in rabies found in raccoons in Manhattan’s Central Park.

3) *Dietary and Nutritional Problems*

Wild ducks and geese feed on a variety of natural foods, such as wild grains and grasses, aquatic plants, and invertebrates. When eaten in combination, these foods are nutritionally balanced and provide everything a wild duck or goose needs to survive. In contrast, foods commonly fed to waterfowl in public parks, such as bread, popcorn, and corn are typically low in protein and essential nutrients and minerals (such as calcium and phosphorus) and result in a variety of nutritional disorders.

It is very common for waterfowl to be admitted to wildlife rehabilitation centers suffering from metabolic bone disease. These birds have incredibly soft bones and joints that are often malformed and fractured. These injuries are caused by an overall calcium deficiency in the body linked to an inappropriate diet. Calcium also plays a crucial role in the formation of eggs/offspring, clotting ability, cardiovascular and neuromuscular function, and a variety of other metabolic activities. These birds are often so malformed they cannot fly and thus are dependent on handouts, completing a vicious circle. Affected birds are typically too weak to compete for food and defend themselves and are often the victims of aggressive attacks by other ducks and geese.

Another common presentation is “Angel Wing”, a condition where flight feathers at the end of the wings are twisted upwards. “Angel Wing” occurs when the weight of growing feathers causes rotation of the wing tip by forces exerted on the underlying ligaments and muscles. If caught in initial stages, waterfowl suffering from this condition may be treated with splints to guide bone growth in the correct position. Although there are several theories regarding the causes of “Angel Wing”, some studies suggest that diets high in protein may be to blame. As such, well-meaning citizens feeding commercial duck, chicken or turkey rations to avoid the “junk food” may be unintentionally creating this disorder.

Finally, it should be noted that many bread products expand in water (and thus the stomach) giving waterfowl an artificial feeling that they are full. As a result, these birds may not feel motivated to continue foraging on natural foods of higher nutritional value.

4) *Habituation*

In the wild, a healthy fear of humans and other potential predators allows ducks and geese to survive and reproduce. In public settings where waterfowl are fed artificial diets, these birds often lose this fear and are more likely to be consumed by predators (feral cats, dogs, foxes, raccoons, etc). Urban waterfowl may also have higher incidence of vehicle collision, chemical exposure, malicious attacks by humans, and entanglement in litter. Large habituated geese may pose a significant public health threat at certain times of the year if they are defending a nesting female or a brood of goslings. These geese have the ability to break human bones with their powerful wings.

5) *Delayed migration*

Supplemental feeding can interfere with normal migration patterns by delaying departure or suspending the behavior altogether. These feeding sites may also attract migrating waterfowl and even further inflate the local duck and geese populations during certain times of the year. If it is a particularly harsh winter, birds may perish when the water freezes or if feeding is suddenly stopped depriving the birds of all forms of food.

Alternatives

The best solution for waterfowl problems situated around public parks is to stop all forms of supplemental feeding. Wild birds have evolved to survive in natural conditions and do not benefit from handouts by the well-meaning public. To avoid nutritional disorders and litter associated with feeding “junk food”, some towns have installed grain or pellet dispensers in attempt to better serve the ducks and the public. However, while these actions may help reduce dietary disorders, they do nothing to prevent overcrowding, disease concerns, habitat degradation, habituation, or the risks associated with delayed migration.

Watching birds in their native environment is a wonderful alternative to supplemental feeding in public parks. Bird-watching allows participants to observe how waterfowl really interact with their environment and is rarely associated with the risks to the animals, environment and public found in public parks allowing supplemental feeding. If one is compelled to feed animals, many zoos and related facilities allow this activity in a regulated fashion. Although feeding waterfowl may seem gratifying and beneficial, it is often associated with negative consequences for the birds, the environment, and public health and should be discouraged.