

AERIAL INSECTIVORE GOALS AND GUIDELINES

Introduction. The term “aerial insectivore” refers to those species of birds that catch and consume insects while flying. They include swifts, swallows, nightjars, and flycatchers. Studies estimate that birds in this group may catch up to 5,000 insects per bird per day.ⁱ Their prey includes flies and mosquitos.ⁱⁱ

Several species of aerial insectivores occupy human-built structures. Chimney Swifts live almost exclusively in chimneys, nesting in the smaller chimneys during the summer, and, when gathering for migration in the fall, roosting in large numbers in commercial chimneys. Common Nighthawks nest on flat roofs of commercial buildings, including those of athletic parks. Purple Martins, a species of swallow, occupy “Martin houses,” sometimes a collection of gourds, but now more frequently boxes resembling miniature, multi-family houses mounted on posts on farms and open land.

Value. In addition to consuming types of insects that sting and can carry disease, aerial insectivores bring the benefits of connecting to the natural worldⁱⁱⁱ to a wide variety of citizens. Connecting with nature has been proven by studies to improve quality of life. Aerial insectivores are easily observed, especially during fall migration. Spending most of their life on the wing, they fly in open spaces, maneuvering in elegant, sharply-cut turns. Because several species of aerial insectivores occupy man-made dwellings in cities, they are easily seen by urban dwellers, while other species occupy farmland or woods. Thus, these species of birds can be observed by Durham citizens in both urban and rural settings.

In addition, Chimney Swifts during fall migration gather in flocks of as many as 1,000 or more and swirl in the sky in the late evening in a spectacular display, before descending in a spiral into large chimneys to roost for the night. In recent years, New Hope Audubon Society has partnered with local bars and restaurants to hold “Swift Viewing” nights that have brought numerous customers to the local economy.

Conservation. Aerial insectivores, like most species of birds, have suffered steep population declining in the last 50 years^{iv}, with more declines predicted if conservation efforts are not made. New Hope Audubon proposes four actions to promote conservation:

- Educating citizens regarding the identification, value, and methods of conservation of aerial insectivores;
- Preserving and expanding nesting and roosting sites for aerial insectivores;
- Minimizing nighttime lighting that disrupts aerial insectivore’s roosting and hunting; and
- Reducing broadcast spraying of insecticides

Education: The designation of “Year of the Aerial Insectivore” would bring awareness of these birds to the attention of a broad range of population. The designation could then be used to approach events such as farmers’ markets, crafts fairs, and athletic games to request opportunities for New Hope Audubon volunteers to present information to participants. New Hope Audubon also plans to add signage at or near nesting and roosting sites to inform people about aerial insectivores. Local artists and artisans might create art depicting aerial insectivores,

including perhaps murals on buildings with roosting or nesting sites. And commercial enterprises could use the designation to attract customers to special events connected to aerial insectivores.

Habitat: Roosting and nesting sites could be preserved and expanded through information produced by New Hope Audubon for the Year of the Aerial Insectivore. In particular, large chimneys of industrial buildings are critical both to protect Chimney Swifts in migration and also to house them in the numbers that attract the attention of observers. Businesses with chimneys that already attract aerial insectivores could be persuaded to maintain the birds' access to their buildings. Businesses that have blocked access might be persuaded to unblock their chimneys, once they learn that the roosting birds do not damage them. Businesses with roosting chimneys might want to become sponsors for the Year of the Aerial Insectivore to show their participation in preserving the environment. Home owners, too, would be reassured to learn that Chimney Swift nests consist of a few twigs stuck with the birds' saliva to the side of chimneys, which easily disappear during annual chimney cleanings. They might then leave chimneys uncapped, or remove caps during nesting season, or use caps that block rain but leave space for the birds to fly in.

Artificial light: Artificial light at night affects bird behavior and success in breeding and thriving. The local Lights Out initiatives that encourage lights being turned off during the night would be reinforced by the designation of Year of the Aerial Insectivore. New Hope Audubon is presenting a Lights Out resolution to government entities that have not adopted this initiative.

Insecticides: Finally, broadcast spraying of insecticide harms not only beneficial insects but also birds. Even so called "natural" sprays for suppressing mosquitos kill many harmless or even helpful insects^v. Aerial insectivores rely on insects for their food, and therefore the unnecessary reduction of insect populations adversely affects birds. New Hope Audubon hopes to use the Year of the Aerial Insectivore to educate business and home owners to avoid broadcast insecticide spraying and consider alternative methods of reducing nuisance insects, such as integrated pest management.

ⁱ <https://carnegiemnh.org/chimney-swift-conservation/>

ⁱⁱ <https://powdermillarc.org/chimney-swift-research/>

ⁱⁱⁱ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6926748/>

^{iv} <https://heritageconservancy.org/chimney-swifts-a-species-in-decline/>

^v <https://blogs.bcm.edu/2022/03/03/from-the-labs-an-organic-insecticide-is-more-damaging-to-non-target-insects-than-synthetics/>