I am a strong supporter of native plants for birds. The native plant promotion system we developed in our club has been very successful - 45% of members have planted native plants. It is also at this site: https://birdfriendlyyards.net/freeplans/

However, building a bird friendly yard with native plants is different than planting native generally. Let me illustrate:

The worst decision you can make in your yard for birds is to remove native trees and shrubs

and plant a pollinator garden.



It comes down to this:

- 1. If you are planting for birds, the goal must be to provide the maximum amount of native green foliage. (Biomass)
- If you do not start with a yard that is safe for birds, the native plants will not increase bird populations.
- We cannot stem the drastic declines in bird populations (30% since 1970's) unless we both reduce bird deaths and add to the bird population. "You can't fill the tub unless you plug the drain."

It's About Biomass Native plants are so important to birds, because as Doug Tallamy has shown, they provides far more food for birds than introduced foliage. As Doug Tallamy wrote me in an email, "all people want to talk about is pollinators, birds need the native trees and shrubs which provide the biomass they need."

The primary food that adult birds feed their young are Lepidoptera— moth and butterfly

larvae. These larvae eat leaves. Since trees and shrubs provide far more leaves than garden plants, they provide far more food for nestlings. (Bird parents must find 8,000 insects to fledge a nest, and more yet to feed the juvenile birds.) Even hummers acquire half of their food eating insects.(Meat eating predators and some seed eating birds are not dependent on insects to feed their young.)

The scientific basis for the advocacy of planting native to increase the bird population is found in the research of Desiree Narango. (citation below.) Narango (citation below) makes this point as follows:

Given that the majority of terrestrial birds rely on insects as a primary food source for reproduction and survival, the persistence of insectivorous bird populations is inextricably linked to insect conservation.

Narango's research shows that increasing the native portion of woody vegetation to 70% provides enough food so that two more nestlings survive per nest. Two more nestlings per nest can make a big difference because it can make possible a sustainable population (i.e. stop decline). This is the case because, as noted above, native plant biomass provides much more food the parents to feed their young. Garden plants, by way of comparison, create very little biomass. That is why Narango's research was based on the measurement of woody vegetation.

Nestling survival determines whether bird populations rise or fall. Providing native berries from introduced sources for adult birds to eat is valuable, however if more nestlings are not surviving, the berries will not increase bird populations. As Narango notes:

Therefore, our study suggests that nonnative plants do not provide enough arthropod prey during reproduction to sustain bird populations, making any post reproductive benefits from the production of fruit or seed irrelevant

A Dangerous Yard is Not Bird Friendly Planting native for birds is different for a second reason. If your yard is not safe for birds, increasing native vegetation will not increase the bird population. The reason is that windows are part of your yards. Home windows kill an average of two birds per year - and about twice that number if one feeds birds. (Loss, below, also (Kummer et al. 2016b). In the feeding range of a pair of chickadees there may be a from 1 to 8 homes. Thus the deaths caused by windows in the feeding range of a pair of chickadees may be between 2 and 16 birds. Narango's research shows that Increasing native plants provides enough food so that only two more nestlings survive per nest. If the windows in the yard a killing from 2 to 16 birds in a bird's feeding range, adding 2 more nestlings cannot increase bird populations. Of course, cat predation is just as harmful. Also, more vegetation will attract more birds to the vicinity of a home, resulting in more window collision deaths (Sheppard, 2011). (Bayne et. al., 2012). The analysis is more complex than plus 2 birds and minus 2 birds = 0 gain. A fuller presentation is a Doug Tallamy's site at

https://homegrownnationalpark.org/guest-posts/window-strikes-and-native-plants-guest-cont ributor

Doug Tallamy has called this approach "essential analysis."

It has also been endorsed by the leading window collision scientist, Dr. Daniel Klem. The basic message is this:

- To increase bird life, bird parents must feed their nestlings 1000's of insects. only native trees and shrubs provide that food.
- A yard that is dangerous for birds is not bird friendly.
- If you do not prevent bird deaths by windows and cats, native plants will not increase bird populations.
- "You can't fill the tub unless you plug the drain."



Bird-building collisions in the United States: Estimates of annual mortality and species vulnerability, Scott R. Loss, Tom Will, Sara S. Loss, and Peter P. Marra The Condor, 116(1): 8-23 American Ornithological Society URL: https://doi.org/10.1650/CONDOR-13-090.1 Nonnative plants reduce population growth of an insectivorous bird. Desirée L. Narangoa, b, 1, 2, Douglas W. Tallamy, and Peter P. Marra Department of Entomology and Wildlife Ecology, University of Delaware, Newark, DE 19716; and Migratory Bird Center, Smithsonian Conservation, Biology Institute, Washington, DC 20008. Proceedings of the National Academy of Sciences. www.pnas.org/cgi/doi/10.1073/pnas.1809259115 Jim Cubie

<u>Jimcubie@birdfriendlyyards.com</u>

Here's How to Help Birds

- Tweet
- Email