



## Gardens and Birds in Hawai'i

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Gardens have been experiencing a lot of positive attention over the past decade as awareness grows of their value to wildlife. In particular, studies across the United States, England, and a handful of other nations have demonstrated how gardens serve as key habitats for many wildlife species, especially birds in urban areas. For instance, gardens provide shelter from the weather, nest building materials, and of course food. Although gardeners sometimes lament the loss of food due to animals, many are also rewarded by seeing the animals use and inhabit their property.

People actively manage their property for the benefit of birds using a variety of approaches, including planting fruits for food and shrubs for protection/nesting, providing nest boxes, and adding bird feeders. Interestingly, there are differences in the degree to which people participate provide assistance to birds that varies by the type of location a person lives in, their income, and their age. For instance, people that are actively engaged in gardening related activities for birds tend to be older. That said, people love to see birds on their property and engage in activities to enhance their numbers throughout the US.



Homeowners living near wetlands may see ae'o, the Hawaiian Stilt, an endangered species.

Little information exists in Hawai'i about the level to which people garden for the benefit of birds or if the gardeners are even interested in birds. This lack of knowledge exists in part to the fact that most gardens are located in urban areas or regions of the state where native birds are uncommon. As a result, most gardeners primarily see non-native bird species in their yards or near their property. For instance, in many urban gardens it is common to see Japanese White-eyes, House Sparrows, doves, and a number of other seed eating birds. Although the composition of bird species varies across the islands, nearly all are non-native. As a result, there have not been many efforts, such as the National Wildlife Federation's Backyard Wildlife Habitat program, to actively promote or understand the value of gardens to birds in the state as non-native birds are either considered unimportant or viewed as pest or invasive species.

Many gardeners in the state will find that their property houses a variety of non-native birds. But nearly all properties also likely have some native birds as well. For instance, the Pacific Golden Plover (kōlea) is a regular visitor

to many green spaces across Hawai'i during the winter months. Likewise, gardens at high elevations may provide opportunities to see native forest birds and gardens near wetlands or freshwater are all places to see native waterfowl, shorebirds, and other wetland related birds.

Across the US it is common to see people enhance their properties for the benefit of birds through gardening activities, feeding birds, and providing nest boxes. In essence, these are approaches that seek to enhance the backyard habitat for the benefit of birds. As such, many state agencies and non-profit organizations have developed programs to enhance backyard habitat. A case in point is the National Wildlife Federation's Garden for Wildlife Program (<http://www.nwf.org/Home/How-to-Help/Garden-for-Wildlife.aspx>), which provides step by step guides for homeowners to create wildlife friendly gardens. Part of the rationale for these programs is not simply to help birds in urban areas (which can be quite important), but also because of the fact that a very large portion of the US population engages in wildlife recreation. In 2011 nearly 53 million people fed birds across the US according to the US Fish and Wildlife 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

Although the promotion of backyard bird habitats and gardening for birds has many benefits, the situation in Hawai'i is different. First, relatively few people actively feed birds on their property (about 9% as of 2006, the most recent estimate to date) and previous research has found that some commercially available bird food has contained invasive plant species. Second, in most locations throughout the islands the most common birds that use gardens and backyard habitats are non-native species. Some of these non-natives are invasive or are considered pests, while others are simply unknown as to their ecological role in the ecosystem. Third, the natural history of many of the species that do well in backyard gardens on the mainland are different from the native species present in Hawai'i or there is simply no species from those families in Hawai'i. For instance, cavity nesting birds such as Black-capped Chickadees are absent in Hawai'i as are families such as woodpeckers. As a result, engaging in habitat modification for the benefit of birds in Hawai'i is not a simple matter. Much of the benefit is likely to be derived by non-native species here in Hawai'i versus natives in the mainland.

Hawaii's native birds are among some of the most interesting and unique in the world, displaying vast differences in how they forage, where they live, and the food they eat. Although Hawaii's native species are quite distinct and wondrous creatures, they are also important because they represent the relatively few bird species that have successfully made it to our remote islands. As a result, even before humans arrived in Hawai'i, the number of different bird species that could be found was considerably less than an equal size area in the continental tropics. Thus the birds that remain today are the last remainders of some of the most important birds the world has seen.

Gardens are wonderful places for observing wildlife and Hawai'i is no exception. Although many of the birds observed in Hawaiian gardens are non-native, natives can be found. But which birds frequent gardens in Hawai'i and to what degree are among the many unknowns we still face. These are among the many interesting questions we still seek to understand about nature.

**For More information:**

- Native Forest Birds of Hawai'i  
<http://www.state.hi.us/dlnr/consrvhi/forestbirds/>
- Birds of Hawai'i: Images by Forest and Kim Starr  
<http://www.starrenvironmental.com/images/?o=birds>
- Hawai'i Audubon Society  
<http://hawaiiaudubon.org/>
- Hawai'i Wetland Birds (.pdf poster)  
<http://pcjv.org/hawaii/wetlands/wetlandsposter.pdf>
- Garden for Wildlife - National Wildlife Federation  
<http://www.nwf.org/Home/How-to-Help/Garden-for-Wildlife.aspx>