

## Native Wildlife Habitat and Farming: Yes, They are Compatible

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When most people think of farming in Hawaii, native plants and animals usually don't come to mind. When they think of native animals, farm and ranch land usually doesn't come to mind. It doesn't have to be that way. If you have some land that you manage, often you can find, restore, or create some habitat for native animals.

At the Natural Resources Conservation Service (NRCS) we help farmers and ranchers address resource concerns. We look at soil, water, air, plant, animal, and human concerns. On our resource concern checklist, of the 76 potential concerns we look at, nine are directly related to native plants and animals, and the rest often have some connection to native habitat. Native plants and animals need soil, water, and air too.

### Why Consider Wildlife?

The Hawaiian islands are home to plants and animals found nowhere else in the world. Much of the habitat for native plants and animals has been lost over a long history of human manipulation of



*Nene in taro lo'i, Kaua'i*

the landscape. Invasive species, urban development, farming and ranching have all contributed to reducing habitat available for native plants and animals. Many of us have not seen or wouldn't recognize a native species. That is because we have replaced their habitat with one we are more comfortable with or at least have come to accept.

But there are many native plants and animals that can live among us. And farmers and ranchers have a greater opportunity than most to help provide some habitat for them. The advantages include the practical, such as pollination benefits, to the philosophical, such as it makes sense to save some of our natural heritage for our descendants to enjoy.



*Honeybee on Ko'oko'olau (Bidens amplexans)*

So, what can you do for native plants and animals on your farm and ranch land?

### Educate Yourself

Learn about the animals and their habitat. NRCS has several biology technical notes. You can find them on the internet at our FTP site (<ftp://ftp-fc.sc.egov.usda.gov/HI/pub/technotes/biology/>). We have information on aquatic habitats (Biology Technical Note 2), forest bird habitat (Biology Technical Note 5), Nēnē or Hawaiian Goose ([Biology Technical Note 16](#)), 'Io or Hawaiian Hawk ([Biology Technical Note 17](#)), and the 'ōpe'ape'a or Hawaiian hoary bat ([Biology Technical Note 20](#)). We even have a

technical note on how to manage water in lo'i and lotus fields for the native waterbirds like the 'Alae 'ula or Hawaiian Moorhen, the 'Alae ke'oke'o or Hawaiian Coot, the Ae'o or Hawaiian Stilt, the Koloa maoli or Hawaiian Duck and for Nēnē ([Biology Technical Note 21](#)). This note is filled with information on our native waterbirds so you don't have to be a taro or lotus farmer to benefit from it.



*Koloa in taro lo'i, O'ahu*

Of course, there are many other resources. Other agencies have web sites and staff that can give you information. There is the [US Fish and Wildlife Service](#), the [US Forest Service](#), the Hawaii Department of Land and Natural Resource [Division of Forestry and Wildlife](#) and the [Division of Aquatic Resources](#). The [Bishop Museum](#) is a great resource, as is the University of Hawaii system of campuses.

Don't forget to think and learn about native insects and pollinators. Though the information related to them is much more limited than for birds, bats and plants, it is out there if you look for it. On the Web you can search the University of Hawaii's [Insect Museum](#) and the Bishop Museum's [Arthropod Checklist](#).

### Evaluate Your Land

Take a look around your farm or ranch and see if there are any "unused areas" where you can plant native plants. Or look for areas that have a function but can be used for wildlife. Some examples of this include windbreaks, vegetative barriers, gulches or stream banks, ponds and reservoirs and the land around them, and even working lo'i and lotus ponds.

If possible, try integrating wildlife habitat into your cropped areas. Alley cropping or multistory farming provides an opportunity to plant wildlife-friendly species among your crop plants. Native insects are attracted to native plants. You don't have to create a whole forest or wetland system to encourage native wildlife. A mixed stand of native plants around your farm or between your cropped lands will provide habitat for native and beneficial insects. The Hawaiian hoary bat uses trees that are taller than 15 feet to rear their young. They fly out over the landscape from dusk to dawn eating insects. Native waterbirds and visiting shorebirds thrive in farmed wetlands that keep their needs in mind. Gulches and stream banks that run through ranch land often has remnant native forests because the animal can't reach them. Or, they can be protected and restored by planting native plants in them to provide habitat and also protect soil and water resources.

Don't just think about your own land or the land you manage. Look at the surrounding areas. Are you near a forest reserve or other natural area? Is there a stream or water body close by? What type of



*Aukuu on O'ahu*



farming, ranching, forestry or other operations are nearby? Are they compatible with native wildlife and beneficial insect habitat management? If possible work with your neighbors to create a linked system of habitats, or expand on existing habitats that are next to you.

### Consider Your Practices

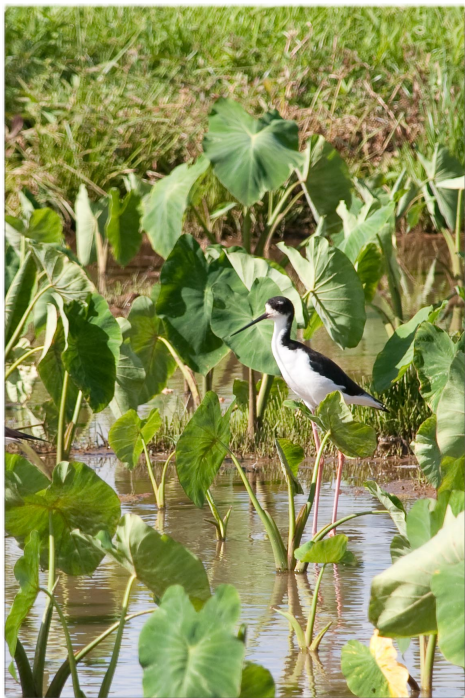
Native wildlife needs clean water, healthy plants, and stable and productive soils to provide food, shelter, and space. If you are protecting your natural resources, it is not only beneficial to you and your operation, but to everyone and everything using these islands. If you spray for insect and disease management, consider using controls specific to the target organism that will not harm other organisms. Broad spectrum chemical pesticides not only kill pests but beneficial and native insects as well.



*'Alae 'ula in Lotus pond, O'ahu*

As a farmer or rancher you are closer to nature than the average city-dweller and have an opportunity to help our wildlife more than most people. By considering the needs of our native species, you not only get our gratitude but that of future generations as well.

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*Aeo in taro lo'i, Kaua'i*



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