

Lainie Berry  
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*Can you please tell us your name, your title, and what you do?*

Lainie Berry

My name is Lainie Berry. I work for the Department of Land and Natural Resources, which is a state government agency for the state of Hawai'i. We manage the natural resources of Hawai'i, for the people of Hawai'i, and that includes the lands and species that are unique to Hawai'i. As Wildlife Program Manager for the division of Forestry and Wildlife, I manage the wildlife program statewide.

*Can you please tell us about this current conservation effort that is happening on Kaua'i?*

Lainie Berry

The 'akikiki is an endemic species, an endemic honeycreeper only found on the island of Kaua'i. The species has been declining significantly in the last ten years. The primary reason for the decline is avian malaria, which is spread by mosquitoes. Mosquitoes are not native to Hawai'i. The species has little to no resistance to avian malaria because honeycreepers evolved in the absence of mosquitoes and mosquito-borne diseases. So we've been monitoring the species population status for many years now, since the 1980s, and watching it decline over that time. Now that the species has plummeted down to around 50 individuals left in the wild, we're very concerned. A few years ago, there was an effort made to establish a captive population, and that was done by collecting eggs from the wild and rearing them into captivity to create a captive population. That was done in collaboration with the San Diego Zoo Wildlife Alliance. So we have a captive population of about 41 individuals from that effort. Unfortunately, those individuals are not breeding as well in captivity as we had hoped, so that population itself is starting to decline as those birds age and don't replace themselves. So we now have a declining population in the wild and in captivity, which is very risky.

*How did the current conservation effort come about?*

Lainie Berry

Knowing there were several species, the 'akikiki and 'akeke'e on Kaua'i, and kiwikiu and 'akohekohe on Maui all at risk of becoming extinct in the wild in the next two to ten years, there was a discussion. There was a large interagency series of workshops in 2022, and the goal was to try to figure out what the options were for these four species, and what the probabilities of success were. That resulted in a publication that came out from the US Geological Survey which made recommendations on actions for each of those four species. For 'akikiki, the recommendation was that the remaining individuals be brought into captivity as soon as possible

to keep them safe until landscape level mosquito control could be implemented. The project itself is a collaborative effort between my organization and the University of Hawai'i. The U.S Fish and Wildlife is also a major player with their advisory, regulatory and funding.

*How is the project going?*

Lainie Berry

It's heartbreaking! No one wants to bring them into captivity and bring them out of the wild from their homes. That's really a last-ditch effort to keep the species from going extinct. We all had hoped that we could keep the birds in the wild, unfortunately, with the declines that have been seen recently in the last couple of years, we don't think the birds have enough time and will go extinct in the next few years. There are no more options left once a species is gone. So no one's excited about it, and it is a heartbreaking step to bring birds from the wild, where they belong, and bring them into captivity. It's risky, it's expensive, and it's emotionally really difficult.

*How has the general public reaction been? Are people supportive of this conservation effort, and if some aren't, what is it that perhaps they're missing?*

Lainie Berry

Although it is heartbreaking, people are supportive. However, we have received some criticism, and this criticism has been directed mostly towards the mosquito control project, which is separate but related. The plan is that we'll implement mosquito control on the landscape. Only when that's successful, then can we release these birds back into the wild. And we hope as soon as possible. For the time being, I'm hoping that people can understand that it's a choice; a choice between that and extinction.

*Hawai'i is referred to by many as the epicenter of extinction in the United States. How dire is it for most of our endemic species here?*

Lainie Berry

It's very dire across the board. Because of its isolation and history, Hawai'i has a huge number of endemic species found nowhere else in the world. Unfortunately, with habitat change, climate change, and invasive species, we're losing those species across the board. Plants, invertebrates, birds... Our one native mammal, the Hawaiian hoary bat, is also endangered. So yes, there is a crisis across the board, not just for forest birds.

*Do you feel the 'akikiki is like the canary in the coal mine, that it could even perhaps serve as a red flag to our own survival as a species?*

Lainie Berry

I think humans are doing just fine, but for species across the world, yes. (Little Pause) The areas 'akikiki were occupying used to be free of mosquitoes, and mosquito-borne diseases. With climate change, increased temperatures and altered precipitation, the mosquitoes and the avian malaria parasite are now able to survive and reproduce in areas where they were not able to do so in the past. We now see sea levels rising, impacting seabird colonies where they used to be safe. So yes, across the world, we're seeing these rapid changes in the climate and sea level having a huge impact on species.

*Why is biodiversity important?*

Lainie Berry

Biodiversity is incredibly important for a lot of reasons, and different reasons for different people. As a scientist, I have an incredible amount of respect and fascination for all the species that occupy this world, and how they interact and survive. For others, there are a lot of cultural values to all these species; they have a history, they have a connection with these species. We're trying everything we can at this point to save what we can. It may not work since we're fighting factors that we don't fully understand, and we don't have the tools. We also don't have the resources that we need and yet, we're still trying. But I do believe that we need to try. The people of Hawaii deserve these species.

*If you had only one message to share with the world, what would it be?*

Lainie Berry

Make the effort to get acquainted with these species. (Little Pause) A really important message DLNR is trying to convey to the public is that in the last few years, we've seen species just disappear from areas where they were once common. Our ultimate goal is that people have honeycreepers in their backyards again. Right now, it's just not possible; the species can only hold on in these very high elevation areas that are just not accessible to the public. But if this works, if we can address these mosquito-borne diseases, we hope that the honeycreepers can rebound and spread and come back to people's backyards, come back to the forest where they have disappeared from, and that people will be able to see them, and enjoy them again, and hear their songs. What we need is support from the public. If we lose them, then that's forever. That would be a tragedy. I think we need to do everything we can to save the species that we still have.