

# Resource Kona

RESOURCE KONA

Spring 2020

KONA SOIL AND WATER CONSERVATION DISTRICT

## National Pollinator Week June 22-28 Lets Celebrate the BEE



There are many more pollinators than bees in this world. They include, bats, birds, butterflies, moths beetles and other insects. Many pollinator species are having a tough time with challenges related to habitat loss, pathogens, disease and pesticide use. When you consider their workload, impacting one of every three bites of food we consume, we really owe it to them to help them out.

Hawaii has over 70 species of native bees (*Hylaeus sp.*), with another 19 introduced species. In North America, there are over 4,000 native bee species. Worldwide, there are over 200,000 animal species involved with pollination. That sounds like a lot of pollinators but they are on the decline. Without them we would find it difficult to eat, there would be no fruit, no vegetables, and no seeds.

What attracts pollinator species? Pollen, which provides the pollinator with protein, and nectar which provides sugar and carbohydrates. Since our pollinators need to eat year round and because different plant characteristics attract different pollinators diversity is the first thing that should come to mind when planning their habitat. On page four is a chart showing what different pollinators are looking for in the way of flower color, shape, and scent, its nectar, pollen, and nectar guides. They all play a role in attracting pollinators.

There are conservation practices that you can implement to attract pollinators. No matter which practice you would like to implement, plant diversity is vital for attracting pollinators. (continued on page three)



Photo credit: NRCS New Jersey

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### Special points of interest:

- Kona SWCD meetings take place the Third Thursday of the month from 8am-10am and you are invited.
- This newsletter is produced with funding from the Hawaii County Department of Research and Development

## ***Rapid Ohia Death, The Latest***

All of the information in this article came from the Rapid Ohia Death (ROD) quarterly newsletter.

Testing for ROD is done at the USDA Agricultural Research Center in Hilo. Due to the COVID-19 virus, testing for ROD has been suspended indefinitely. We will be notified when samples are being accepted again. In the mean time, ROD samples will keep for 8-12 weeks if put in the refrigerator.

On the ground field work has been limited but on Kauai researchers were focused on felling infected trees and assisting in entomology (beetle) research. It is the ambrosia beetles (and there are thousands of different ambrosia beetle species) that are being studied on Kauai by the USGS. Their research goals include identifying which beetle species exist on Kauai, which of the beetle species are attacking the infected and dying ohia, and to learn more about the importance of covering fallen ohia trees with a tarp, does it really help?

Keep in mind, the researchers are studying something that is about the size of the Franklin D. Roosevelt's ear on a dime. Having a hand held magnifying lens in the field and microscope in the lab is required to make a positive species identification.

ROD is now found on Hawaii, Kauai, Maui and Oahu. There are two pathogens associated with ROD, *C. huihiohia* and *C. lukuohia*. The less aggressive strain, *C. huihiohia*, is found on all four islands while the more aggressive strain *C. lukuohia* is currently only found on Kauai and Hawaii Islands.

One researcher, Nikko Bjontegard, found that decontaminating with solutions of 5%, 10% and 20% Clorox Bleach were not effective ways of killing the *C. Lukuohia* spores embedded in ambrosia beetle frass. Solutions of 50%, 70% and 90% Isopropyl alcohol were all effective decontaminants. The contaminated frass is believed to be one of the main ways the spores are transported from one tree to another. Other major movers of the pathogens are people who do not decontaminate their equipment, boots, or vehicles after being in a ROD infected area.



Photo taken at the Kahuku Unit of Hawaii Volcanoes National Park



These photos have been used in previous editions of Resource Kona on articles related to Ohia trees. They are being used again because they are so pretty.

Best Management Practices for creating pollinator habitat include establishing a hedgerow, a field border, a windbreak, planting trees or shrubs for the purpose of attracting pollinators. If you are interested in learning more about how to create pollinator habitat or would like a list of pollinator species you can grow at your location contact your local NRCS or Soil and Water Conservation District Office.



Pollinator habitat hedgerow demonstration planting at the NRCS Plant Materials Center in Lockeford, CA  
Photo credit: NRCS California



Native Pollinator, the Kamehameha Butterfly. The Kamehameha Butterfly is the Hawaii State Insect.  
Photo credit: DLNR Division of Forestry and Wildlife



To the left, the native pollinator, the I'iwi bird, also known as the Scarlett Honeycreeper. The shape of its beak and the tubular flowers it sips nectar from evolved together. Photo credit: US Fish and Wildlife Services.



A Yellow-faced bee, one of the many native bees in Hawaii.  
Photo credit: <https://cms.ctahr.hawaii.edu/YFB>



Above, another native pollinator, the Hawaii 'Amakihi has a tubular tongue that allows it to drink the nectar from flowers like the lehua blossom.. Photo credit: Wikipedia

### *What Are Pollinators Looking For?*

<b>Plant Characteristic</b>	<b>Bats</b>	<b>Bees</b>	<b>Beetles</b>	<b>Birds</b>	<b>Butterflies</b>	<b>Flies</b>	<b>Moths</b>	<b>Wind</b>
<b>Color</b>	Dull white, green or purple	Bright white, yellow, blue, or UV	Dull white or green	Scarlet, orange, red or white	Bright, including red and purple	Pale and dull to dark brown or purple; flecked with translucent patches	Pale and dull red, purple, pink or white	Dull green, brown, or colorless; petals absent or reduced
<b>Nectar Guides</b>	Absent	Present	Absent	Absent	Present	Absent	Absent	Absent
<b>Odor</b>	Strong musty; emitted at night	Fresh, mild, pleasant	None to strongly fruity or fetid	None	Faint but fresh	Putrid	Strong sweet; emitted at night	None
<b>Nectar</b>	Abundant; somewhat hidden	Usually present	Sometimes present; not hidden	Ample; deeply hidden	Ample; deeply hidden	Usually absent	Ample; deeply hidden	None
<b>Pollen</b>	Ample	Limited; often sticky and scented	Ample	Modest	Limited	Modest in amount	Limited	Abundant; small, smooth, and not sticky
<b>Flower Shape</b>	Regular; bowl shaped – closed during day	Shallow; have landing platform; tubular, c	Large bowl-like, Magnolia	Large funnel like; cups, strong perch support	Narrow tube with spur; wide landing pad	Shallow; funnel like or complex and trap-like	Regular; tubular without a lip	Regular: small and stigmas exerted

Source: [https://www.fs.fed.us/wildflowers/pollinators/What\\_is\\_Pollination/syndromes.shtml](https://www.fs.fed.us/wildflowers/pollinators/What_is_Pollination/syndromes.shtml)

***Lots of Staffing Changes at the Kealahou Field Office***



Above, our new District Conservationist, Laura Nelson.

Since the first of the year there have been a lot of personnel changes here at the NRCS field office in Kealahou. Jessica Schmelz, our District Conservationist (DC) accepted a new position in North Carolina working with the programs people in that state. Her new role is very exciting for her, instead of working in the field she will be helping those in the field implement NRCS programs like EQIP and CSP. With Jessica moving on we were going to need a new DC. Soil Conservationist Laura Nelson applied for and was offered the job so she is now responsible for the activities of the office. She brings a great deal of experience to the position, not only in the field of resource management but also in supervisory experience. She also has a really good crew and who are looking forward to working with her in her new capacity as DC.



Above, new Soil Conservationist, Zach Freeman and his family.

Even before Laura moved up to the District Conservationist position we were in the process of hiring another Soil Conservationist, a gentleman named Zachary Freeman, Zach for short. Originally from Pennsylvania, where his Grandfather made him bail hay, scoop manure and milk the cows, Zach came to Hawaii via active duty service in the US Coast Guard. After completing his active duty service he entered the Coast Guard reserve and started college at UH Manoa and earned his Bachelors of Science in Natural Resource and Environmental Management, specializing in soil and water conservation (aka perfect fit). As a student he became a Pathways Intern (an internship program with NRCS) and as result of that internship he was eligible to apply for the Soil Conservationist position when it was available.

Zach states he is looking forward to helping our agricultural community protect and grow their soil. He moved here from Oahu with his wife Sangeetha and his son Xander, his ultimate traveling companions, and all are looking forward to having many exciting adventures here on the Big Island.



Above, our new Program Support Specialist, Suzanne Krueger

We also have a new Program Support Specialist, Suzanne Krueger. Suzanne has lived on the Big Island for a little more than 10 years. Her early years here were as a wooper for Dragon's Lair Kona Coffee Farm where she learned the ins and outs of coffee farming. Prior to working the coffee fields of Kona, Suzanne taught Special Education students grades 6-8 in Los Angeles, California. Suzanne is originally from Minnesota and earned a bachelor's degree in philosophy at Minnesota State University Moorehead.

Please join us in welcoming Suzanne and Zach to our community, and in congratulating Jessica and Laura in the attainment of their new positions.

## ***NRCS Response to COVID 19***

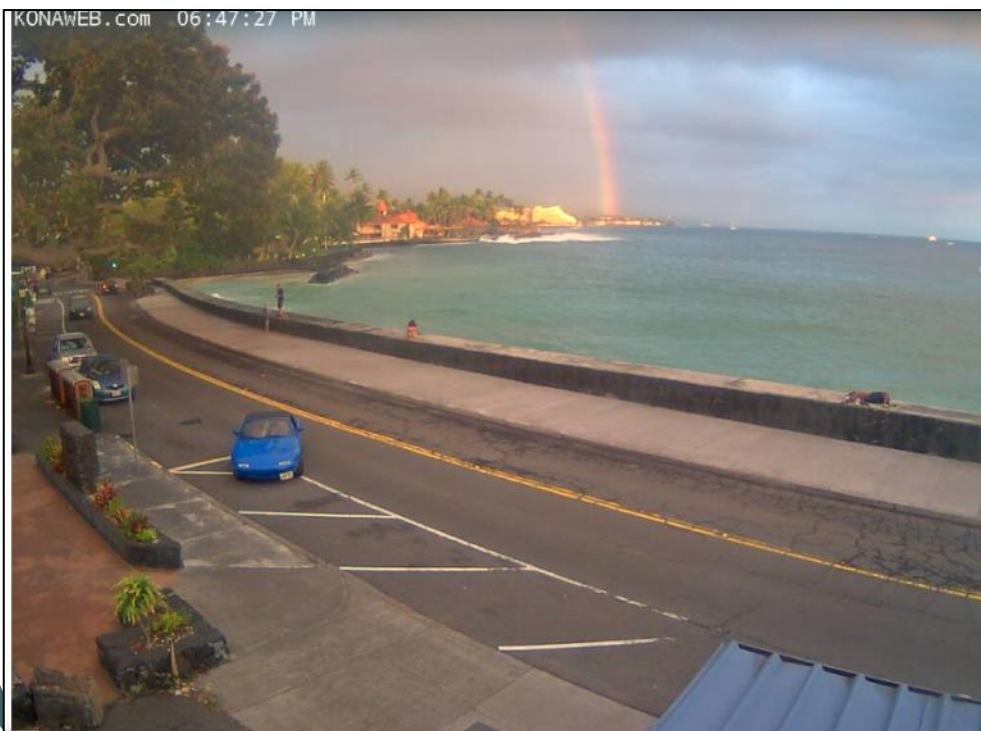
Across the country NRCS offices have remained operational in that the staff continue to do their work. All NRCS offices have been closed to the public since mid-March but staffers have continued doing what they need to in order to get conservation on the ground. Generally each office determines how best to operate within this new landscape. For the Kealahou field office, some staffers have teleworked and some have come into the office. Those who have not teleworked have had computer connectivity issues, and as a result had to come into the office to work.

Appointments, for the time being, are not being made for in office activities but are made for site visits. For those who have EQIP contracts and need something certified, give us a call and we can work out something to get your practice certified and get the payment process going.

We have a signing desk in our government vehicle parking lot. When someone needs to sign paperwork, we put it on the signing desk and the client can stop by to sign when they have a chance. Any paperwork not signed comes in for the night then put back on the desk the following morning.

We processed the EQIP applications for fiscal year 2020 funding to the point of ranking. Ranking is where ranchers compete against ranchers, farmers against farmers and forest restorers against forest restorers, for funding. The resource concerns a farmer may have can be very different from the resource concerns a rancher may have which are very different from the resource concerns someone wanting to restore a forest has. We are now waiting to learn which applications are going to be funded.

The number of contracts being funded this year will be lower than last year. Last year the Kealahou field office awarded over 5 million dollars in contracts to our local farmers, ranchers and forest land owners. This year the total awarded will be much less than that, regrettably. If you have applied, you will find out shortly if your application has been funded. You won't be able to start yet because cultural resource and threatened and endangered species reviews are still required.



This photo, from the Konaweb.com webcam, is printed here to remind us all there is hope at the end of this challenge.



For more information, or to apply for any USDA Farm Service Agency program, please call your local USDA Service Center. NOTE: Fees, eligibility requirements, income and payment limitations may apply with any of the programs listed below. Please check with the nearest FSA office for specific rules. The FSA office shares a phone line with Rural Development (RD). Both are in Hilo and can be reached at 933-8381, FSA is ext 2.

On March 27, 2020, President Trump signed into law the Coronavirus Aid, Relief, and Economic Security Act. This legislation includes \$48.9 billion for USDA agencies and the Food and Drug Administration to continue to respond to the coronavirus pandemic.

The CARES Act contains \$9.5 billion in assistance for agriculture producers who have been impacted by COVID-19 along with a \$14 billion replenishment to the Commodity Credit Corporation. In addition, the legislation includes \$100 million in ReConnect grants to expand access to broadband in rural America for educational purposes, business, and access to critical telehealth services.

FSA is swiftly evaluating the authorities granted under the CARES Act and will leverage their programs to alleviate disruption as necessary. For the latest updates on the CARES Act, and other Frequently Asked Questions, visit [usda.gov/coronavirus](https://usda.gov/coronavirus).

### Coronavirus Food Assistance Program

Are you a farmer or rancher whose operation has been directly impacted by the coronavirus pandemic? The Coronavirus Food Assistance Program will provide direct relief to producers who faced price declines and additional marketing costs due to COVID-19.

Beginning May 26, FSA will begin accepting applications for CFAP. To find the latest information on CFAP, including forms and the contact information for your local Service Center, visit [farmers.gov/CFAP](https://farmers.gov/CFAP).

You will need to establish eligibility for this and other FSA programs.

<i>Program</i>	<i>Interest Rates</i>
Farm Operating-Direct	1.375%
Farm Operating-Microloan	1.375%
Farm Ownership Direct	2.250%
Farm Ownership-Microloan	2.250%
Farm Ownership-Direct, Joint Financing	2.500%
Farm Ownership-Down Payment	1.500%
Emergency Loan-Amount of Actual Loss	2.375%
Interest Rates Effective June 1, 2020	

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Monthly meetings are held on the 3rd Thursday of the month from 8am-10am at the USDA Kealahou Service Center below the post office. All are welcome and the facility is ADA accessible.

Organization: The Kona Soil and Water Conservation District (KSWCD) is a government subdivision of the State of Hawaii organized under Hawaii State Law, HRS Chapter 180

Function: To utilize available technical, financial and educational resources to focus or coordinate them so that they meet the needs of the local land users with regards to conservation of soil, water, and natural resources.

Service: The District serves the communities and land users within North and South Kona

Why: The District is committed to the promotion of wise land use and resource stewardship.

**We are on the web at**

**[www.kswcd.org](http://www.kswcd.org)**

### ***Down the Road...***

NRCS has gone through a lot of changes this fiscal year. We had to wait for national to finish revising the rules to the programs before we could accept applications. We also had new software tools for ranking applications and for plan development. Now those new tools are firmly in place and we are finishing up the plan development and contract development for fiscal 2020 funding from the Environmental Quality Incentives Program (EQIP). We should know soon which conservation projects receive funding and which ones, regrettably do not. We will be working on Conservation Stewardship Program (CSP) applications next.

The CSP program is for folks that cannot benefit from the EQIP. Because they are such good land stewards EQIP does not offer them anything. Many of those who apply for CSP funding have been long time EQIP clients who no longer have natural resource concerns on their land. Others are people who have maintained good land stewardship practices without assistance from NRCS. You do not have to have been an NRCS client to apply for CSP. The requirement is that you have a history of being a good land steward.

In the fall we will likely have an EQIP application deadline, maybe October/November time frame. Keep an eye out for the notice from the Kona SWCD or give us a call and let us know you want to apply. By then we are scheduled to have another Soil Conservationist hired for the office to help us help you.

Hopefully in the fall COVID-19 will be in the rear view mirror enough that customers can more freely come into the office and discuss their challenges or, as some of you like to do, just stop in to say hello and ask us what is new.

We are into the rainy season now and we are all hoping there is enough rain to keep everyone happy but not so much that it causes any flooding problems. If you have a watercourse running through your land please keep it free of debris. That debris can cause blockages down stream from you possibly creating major problems for your neighbors which can in turn cause problems for you.