

**THE THIRTIETH LEGISLATURE  
APPLICATION FOR GRANTS  
CHAPTER 42F, HAWAII REVISED STATUTES**

Type of Grant Request:

Operating                       Capital

Legal Name of Requesting Organization or Individual: Db: \_\_\_\_\_  
Garden Island Resource Conservation & Development, Inc (GIRC&D)

Amount of State Funds Requested: \$ 342,683

Brief Description of Request (Please attach word document to back of page if extra space is needed):

Grant in Aid is requested to support a novel, participative approach to protecting 3 federally endangered forest birds on Kaua'i using local groups, interns and students. This conservation proposal has three prongs; 1) A Communities in Conservation Initiative; 2) A Local Conservation Infrastructure Project; and 3) A Conservation in Action Project. It includes a citizen science project on avian malaria; construction of 2 upland shelters; actions such as removal of invasive predators & weeds; bird monitoring; and student, intern & volunteer training in essential conservation work. 13

Amount of Other Funds Available:  
State: \$ 94,000  
Federal: \$ \_\_\_\_\_  
County: \$ \_\_\_\_\_  
Private/Other: \$ 35,650

Total amount of State Grants Received in the Past 5 Fiscal Years: \$ 593,254  
Unrestricted Assets: \$ \$229,664.46

New Service (Presently Does Not Exist):  Existing Service (Presently in Operation):

Type of Business Entity:  
 501(C)(3) Non Profit Corporation  
 Other Non Profit  
 Other

Mailing Address:  
GIRC&D, 4253 Rice Street, Suite C  
City: Lihue State: HI Zip: 96766

**Contact Person for Matters Involving this Application**

Name: Carolyn Lum	Title: Administrator
Email: gircdnew@gmail.com	Phone: 808 246 0004

Federal Tax ID#: [REDACTED]	State Tax ID# [REDACTED]
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*Owen Moe*  
Authorized Signature

Owen Moe, President  
Name and Title

1/15/2019  
Date Signed

**received**  
1/16/19 1:16pm

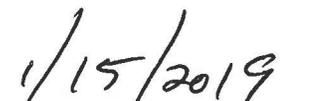
## Application Submittal Checklist

*The following items are required for submittal of the grant application. Please verify and check off that the items have been included in the application packet.*

- 1) Certificate of Good Standing (If the Applicant is an Organization)
- 2) Declaration Statement
- 3) Verify that grant shall be used for a public purpose
- 4) Background and Summary
- 5) Service Summary and Outcomes
- 6) Budget
  - a) Budget request by source of funds ([Link](#))
  - b) Personnel salaries and wages ([Link](#))
  - c) Equipment and motor vehicles ([Link](#))
  - d) Capital project details ([Link](#))
  - e) Government contracts, grants, and grants in aid ([Link](#))
- 7) Experience and Capability
- 8) Personnel: Project Organization and Staffing

  
AUTHORIZED SIGNATURE

OWEN MOE, PRESIDENT  
PRINT NAME AND TITLE

  
DATE

Application for Grant in Aid  
Financial Year 2020

**Communities in Conservation: Protecting  
Kaua'i's Forest Birds Through Community  
Engagement & Action**

**By:**

**Garden Island Resource Conservation &  
Development, Inc.  
(GIRC&D)**

**Kaua'i, Hawai'i**

If any item is not applicable to the request, the applicant should enter "not applicable".

**I. Certification – Please attach immediately after cover page**

**1. Certificate of Good Standing (If the Applicant is an Organization)**

*If the applicant is an organization, the applicant shall submit one (1) copy of a certificate of good standing from the Director of Commerce and Consumer Affairs that is dated no earlier than December 1, 2018.*



**Department of Commerce and Consumer Affairs**

**CERTIFICATE OF GOOD STANDING**

I, the undersigned Director of Commerce and Consumer Affairs of the State of Hawaii, do hereby certify that

**GARDEN ISLAND RESOURCE CONSERVATION & DEVELOPMENT, INC.**

was incorporated under the laws of Hawaii on 01/28/1991 ; that it is an existing nonprofit corporation; and that, as far as the records of this Department reveal, has complied with all of the provisions of the Hawaii Nonprofit Corporations Act, regulating domestic nonprofit corporations.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Department of Commerce and Consumer Affairs, at Honolulu, Hawaii.

Dated: December 17, 2018

Director of Commerce and Consumer Affairs



**2. Declaration Statement**

*The applicant shall submit a declaration statement affirming its compliance with Section 42F-103, Hawaii Revised Statutes. ([Link](#))*

Attached

**3. Public Purpose**

Attached

**DECLARATION STATEMENT OF  
APPLICANTS FOR GRANTS PURSUANT TO  
CHAPTER 42F, HAWAI'I REVISED STATUTES**

The undersigned authorized representative of the applicant certifies the following:

- 1) The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawai'i Revised Statutes:
  - a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant is awarded;
  - b) Complies with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;
  - c) Agrees not to use state funds for entertainment or lobbying activities; and
  - d) Allows the state agency to which funds for the grant were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and ensuring the proper expenditure of the grant.
- 2) If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:
  - a) Is incorporated under the laws of the State; and
  - b) Has bylaws or policies that describe the manner in which the activities or services for which a grant is awarded shall be conducted or provided.
- 3) If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawai'i Revised Statutes:
  - a) Is determined and designated to be a non-profit organization by the Internal Revenue Service; and
  - b) Has a governing board whose members have no material conflict of interest and serve without compensation.

Pursuant to Section 42F-103, Hawai'i Revised Statutes, for grants used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant was awarded and disposes of the land in fee simple or by lease, the organization shall negotiate with the expending agency for a lump sum or installment repayment to the State of the amount of the grant used for the acquisition of the land.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

Garden Island Resource, Conservation & Development, Inc.  
for Kauai Forest Bird Recovery Program  
(Typed Name of Individual or Organization)

  
(Signature)

  
(Date)

     Owen S. Moe, President, Garden Island Resource Conservation and Development, Inc.  
(Typed Name) (Title)

## II. Background and Summary

*This section shall clearly and concisely summarize and highlight the contents of the request in such a way as to provide the State Legislature with a broad understanding of the request.*

### **a) Summary**

Three of Kaua'i's native forest bird species are Endangered. They are the 'Akikiki, 'Akeke'e and Puaiohi. I'iwi are also listed as Threatened.

Kaua'i Forest Bird Recovery Project (KFBRP) has a clear action plan, drawn up in consultation with experts state-wide, to protect these birds. Part of this is funded by DOFAW-DLNR and FWS, as well as other grants; however, a shortfall remains.

With the support of Garden Island Resource Conservation & Development, Inc. (GIRC&D) KFBRP has an exciting proposal to fill this funding gap through a participative approach with local groups on Kaua'i and Hawai'i, as well as interns and students. The aim is to achieve KFBRP's science and conservation goals while involving, training and informing local people on Kaua'i and the other Hawaiian Islands. To reimagine the future for these birds, GIRC&D and KFBRP are asking you to support the following through a Grant in Aid:

#### **Communities in Conservation Initiative**

- **A citizen science project** to involve local people in collecting data on **introduced avian malaria**
- **A community engagement project** to inspire love and understanding of our native birds and explain forest ecosystem benefits like flood control

#### **Local Conservation Support Items**

- **Two shelters (called 'weather ports')** with composting toilets and additional boardwalks to protect the delicate Alaka'i Wilderness during our volunteer / intern program

#### **Conservation in Action**

- Co-ordination of a volunteer project to **remove invasive rats**.
- Collaboration with local group Kōke'e Resource and Conservation Program (KRCP) to **remove invasive weeds** in forest bird hotspots
- Training of students, volunteers and interns in essential conservation work including **mist netting and telemetry**

### **b. Background**

#### **An Innovative, Community Approach to Conservation Funding**

Hawai'i is the endangered species capital of the world, yet conservation here is woefully underfunded. Over 71 forest bird species have become extinct across the islands. In Kaua'i, there are currently just eight native Hawaiian forest bird species left. Of those eight, 'Akikiki, 'Akeke'e and Puaiohi are listed as Critically Endangered (IUCN red list) and Federally Endangered. A fourth bird, the I'iwi, is listed as Threatened.

KFBRP has a mission to protect these birds. It focuses on the 12,000-acre Alaka'i Wilderness Preserve, Kaua'i's largest contiguous tract of native montane wet forest, and last refuge for these endangered species. The area is a top conservation priority and harbors a rich assemblage of native flora and fauna, including 50 endangered plant species. It is a critically important part of Kaua'i's watershed.

Saving these birds is important to the forests of Kaua'i. KFBRP has evidence to show that forest birds are key pollinators and distributors of native seeds. Losing these birds will cause damage to Kaua'i's forests, which **perform key ecosystem functions, such as water purification and flood management**. The birds are also of **cultural importance** and the foremost example of 'adaptive radiation' in the world, having all evolved from a common ancestor.

KFBRP is deeply involved in the local community and would like to draw further on community resources **so that local people and organizations become part of the solution to these problems**. However, KFBRP is currently experiencing a funding crisis; funding has failed to keep pace with rising costs for core work. A Grant in Aid (GIA) will allow them to extend an invitation to local groups and students to help protect forest birds.

## Partners

District 16 Representative Dee Morikawa supports this GIA, not only because endangered forest birds on Kaua'i are predominantly in her district, but more importantly, because these birds need help or they may go extinct. Representative Morikawa recognizes the highly innovative approach that this GIA proposal is taking to involve, inspire and educate students, interns, volunteers and local people while carrying out this essential conservation work.

GIRC&D and KFBRP intend to partner with local organizations for this GIA, including the Kupu Hawai'i intern program, the Kōke'e Resource Conservation Program (KRCP) and Kauai DOFAW, which is providing significant match-funding and technical support for this project.

GIRC&D has a broad mission and supports a number of Grant in Aid proposals, however, GIRC&D is prioritizing this project (*Communities in Conservation: Protecting Kaua'i's Forest Birds Through Community Engagement & Action*) for its FY2020 GIA applications.

## Outline Proposal for Grant in Aid

Our proposed GIA project has three components:

- 1) Communities in Conservation
- 2) Local Conservation Support Items
- 3) Conservation in Action

### 1) Communities in Conservation

- A key component of Communities in Conservation will be the **Citizen Science Project** to study invasive mosquitos that carry avian malaria and pox. Global warming has allowed disease-carrying mosquitos to survive at higher elevations, which are the final refuge for our forest birds.

Local people will get involved in catching mosquitos in lowland locations. This will support future work to target mosquitos effectively with a technique called IIT to control this pest species, which also has implications for human health.

- Support for **outreach work** will ensure that the project is recognized locally and nationally. Outreach goals include;
  - a sustainable intern program to mentor and train future conservationists.
  - public education through service-learning projects in Kōke'e, where passionate volunteers will work with experienced and knowledgeable field staff.
  - public lectures and booths at events, local schools, colleges and libraries.
  - press releases, radio slots, feature articles, documentaries, social media blasts.
  - work with Kaua'i High School, Waimea High School and/or Kaua'i Community College (KCC) students on science fair and/or research projects.

For this innovative, community-based approach to succeed, an Outreach Specialist is required; he/she will be responsible for volunteer and intern coordination and public environmental education. This person will ensure that core staff are able to focus on their research work, with the assistance of the participants, as opposed to devoting time to managing participants and performing outreach. A fieldworker is also required to support volunteers and interns in the field.

## 2) Local Conservation Support Items

We need two shelter kits (weather ports) with Sunmar composting toilets and additional boardwalks to protect the delicate Alaka'i Wilderness during our volunteer / intern program. DOFAW is able to supply the labor, set up materials and some helicopter time to set up the kits.

## 3) Conservation in Action

To protect the birds more effectively, we need on the ground conservation action. That will include:

- A volunteer project to **remove invasive rats**. Forest birds evolved without any mammalian predators and are defenseless against rats and feral cats. Rats also eat the seeds and seedlings of native plants, preventing them from propagating, which reduces food supply for native birds and allows space for invasive weeds to grow in the forest.
- Collaboration with local group (KRCP) to **remove invasive weeds** in forest bird hotspots. The establishment of invasive weeds is one of the greatest threats to these endangered species. Puaiohi, for example, is disappearing from weed-infested parts of its range; 'Akeke'e forages for insects and nests only in 'ōhi'a lehua, which cannot regenerate in heavily weed-infested areas.
- Training of students, volunteers and interns in essential conservation work including mist netting and telemetry. This allows KFBPR to fit tiny transmitters to the birds so that they can study them more effectively and identify / protect key breeding and feeding habitat. Essential supplies include batteries for the telemetry towers (the towers themselves have been supplied by DOFAW), telemetry tags, and other field and safety equipment.

## 2. A brief description of the applicant's background;

**Garden Island Resource Conservation & Development, Inc. (GIRC&D)** is a community-based nonprofit corporation whose mission is to prudently use natural and human resources to improve and enhance Kaua'i County's economy, social fabric, and fragile island environment. GIRC&D was incorporated in January 1991; authorized by Congress in February 1992; and received its 501(c)3 IRS designation in August 1993. A 10-member volunteer Board of Directors, representing diverse facets of the Kaua'i community, directs the organization. Since its inception, GIRC&D has worked to fulfill its vision: "The community working together towards a harmonious relationship with the environment." Currently the board umbrellas 26 projects via seven committees: Agriculture, Community Development, Cultural Awareness, Forestry, Infrastructure, Parks and Recreation, and Invasive Species.

The organization has managed over \$8.5 million in grants from the County of Kaua'i, State of Hawai'i, Federal Government and private foundations and donors. GIRC&D supports multiple projects with partial funding including Kōke'e Resource Conservation Program (KRCP), Kaua'i Invasive Species Committee (KISC), and Kaua'i Forest Bird Recovery Program (KFBRP). The latter is the focus of this grant application.

KFBRP's mission is to protect endangered forest birds on Kaua'i, as outlined above in the 'II.b background' section. Located in the heart of Hanapepe, KFBRP would like to draw further on community resources, bringing together local people and organizations to become part of the solution to conservation challenges on the island. Creating citizen science projects and intern/student programs are key to their vision.

### 3. The goals and objectives related to the request;

#### **GOAL 1: Involve and inform the community about long term forest bird conservation work.**

**Objective A:** Carry out a 'Citizen Science Project' to study invasive mosquitos that carry avian malaria, pox and other deadly human diseases. Global warming has allowed disease-carrying mosquitos to survive at higher elevations, which are the final refuge for Kaua'i's forest birds. To combat them, we need to understand where the mosquitos are breeding and do more to control breeding sites across the landscape. Local people will get involved in catching mosquitos in lowland locations, which will help KFBRP and partners to identify the mosquito species; volunteers will also take action to reduce standing water and moist areas where they breed. This will complement ongoing work in the uplands where scientific studies are being carried out by KFBRP and partners aimed at reducing mosquito impacts on endangered forest birds.

**Objective B:** Outreach work will ensure that the project is recognized locally and nationally. This will include:

- i) an ongoing intern program to mentor and train future conservationists;
- ii) a public education program, including service-learning projects in Kōke'e and the Alaka'i. Volunteers will work with experienced and knowledgeable field staff;
- iii) public lectures and booths at events, local schools, colleges and libraries etc.;
- iv) press releases, radio slots, feature articles, documentaries, social media blasts, and peer reviewed professional research publications;
- v) work with Kaua'i High Schools, Kaua'i Community College and other interested students on science fair and research projects;

**GOAL 2: Ensure conservation support items are available to support intern and volunteer projects without damaging the delicate Alaka'i wilderness**

**Objective A:** Set up two weather ports (shelters) to accommodate volunteers, interns and staff in their remote field camp location and ensure that KFBRP can increase staff presence without damaging the delicate Alaka'i Wilderness during the volunteer / intern program. Two Sunmar composting toilets will also be built.

**Objective B:** Replace damaged boardwalks and add additional sections to support ongoing conservation and research endeavors

**GOAL 3: Take specific conservation measures that will give clear conservation benefit to Kaua'i Forest Birds by drawing on community interests and resources.**

**Objective A:** Build up a volunteer invasive rodent control program to reduce rat presence in key bird breeding areas. This is important because forest birds evolved without any mammalian predators and are defenseless against introduced animals, which eat their eggs and chicks. Rats also eat native plant seeds, damaging the forest and dramatically reducing food supplies for the native birds.

**Objective B:** Collaborate with local partners to remove invasive weeds in forest bird hotspots. Invasive weeds are known to affect forest birds; Puaiohi, for example, have been observed over time moving away from weed-infested parts of their range; 'Akeke'e forages for insects and nests only in 'ōhi'a lehua tree, which cannot regenerate in heavily weed-infested areas. Weeds such as Himalayan Ginger also allow pools of standing water to form, which act as breeding grounds for mosquitos.

**Objective C:** Train students, volunteers and interns in essential conservation work including mist netting and telemetry. This will provide KFBRP with additional staff to fit tiny transmitters to the birds so that they can be studied more effectively, a procedure that in no way harms the birds. The tagged birds provide essential information for researchers and conservationists who will use the data to protect key breeding and feeding grounds for future generations of these endangered birds. Students, volunteers and interns will also gain valuable skills. Note that DOFAW have already supported this project with \$19,640 of equipment purchases to allow initial work to occur.

**4. The public purpose and need to be served;**

- **Forest Protection** - saving these birds is critically important to protecting and restoring the forests of Kaua'i. KFBRP has evidence that forest birds are key pollinators and distributors of native seeds. Losing these birds will cause damage to Kaua'i's forests that provide critical services, particularly:
  - i) **Flood management;** upland forests soak up rainwater, controlling the release of the water into the lowlands. This is very important given the devastating floods Kaua'i experienced this year and as climate changes continues, will become more so. Forests also provide erosion control, so that sediment is retained, rather than washing into the ocean to pollute streams, destroy coral reefs and degrade beaches (a major environmental problem given our island's reliance on tourism).

- ii) **Drinking water collection and storage**; the upland forests capture water in the form of mist, fog, and rain, absorbing and releasing it into streams and underground aquifers. The Kaua'i County General Plan states, "the health of our island is the health of our community, and it starts with protecting our watersheds."
- Environmental Asset Protection - Forests are enormous economic assets; millions of visitors arrive every year and many of them are drawn to Kōke'e, the Alaka'i and the surrounding forest areas for a variety of reasons. The forests are part of Kaua'i's appeal as a unique visitor destination. Locals also regularly use these wild areas for recreation and to fish and hunt.  
As an example, the total value of Ko'olau Mountains Forest in O'ahu, was estimated by UH researchers at between US\$7.4 and 14 billion. The economic values are comprised of aesthetic values, water quality & quantity, climate control, biodiversity, and other forest services. The Alaka'i and Kōke'e have similar economic value, especially when one considers what the State would have to pay to manufacture the services these forests provide. The gradual invasion of alien plants into our native forests on Kaua'i may have already reduced the groundwater recharge by an estimated 10% in certain aquifers; another study on Ko'olau put the economic loss of that 10% recharge at \$1.7 million. Protecting the forest by restoring forest bird populations and removing invasive weeds, as proposed in this grant application, matches the aspirations of the Kaua'i County General Plan to protect these environmental assets.
  - Informing, Inspiring, Educating - This project offers a unique opportunity to inspire and inform local people about their native natural history. Involving the community in citizen science projects to collect key data will encourage pride in, and understanding of, the birds and a desire to protect them.  
We will also work to ensure that the next generation of researchers can be drawn from a wide pool of Hawai'i-based candidates, as opposed to bringing in researchers from other areas due to a lack of local skills. This training will help diversify Kaua'i's economy so that we are less dependent on tourism related jobs, as envisaged in the Kaua'i County General Plan. Additional training and experience of this nature with international conservation experts such as Dr. Cali Crampton is intended to assist interns and students in gaining qualifications, leading to higher salaries and a better standard of living.
  - Cultural Importance – Kaua'i Forest Birds have great cultural importance; their feathers were used in Hawaiian featherwork to make cloaks, helmets and leis used by the ali'i. Birds also feature in important legends such as the La'ieikawai's Story. In the *Kumulipo* (Hawaiian creation chant), the 'Apapane was one of the many honeycreeper birds that were created during the "dawn-of-time," and this made it a **kinolau** (body spirit) for many Hawaiian deities. Ancient Hawaiians told multiple stories of subordinate deities, immaculate gods and even relatives taking the forms of forest birds. 'Iwi birds are part of a long legend explaining how they got their color (featuring the demi god Maui). 'Elepaio also played an important role in Hawaiian mythology; they were thought of as the guiding spirit ('aumakua) of canoe makers. 'Elepaio can be found on the islands of Hawai'i, O'ahu and Kaua'i, but the subspecies *C.s. sclateri* is endemic to Kaua'i. The

forest birds of Kaua'i were well known to the Hawaiians and all have individual Hawaiian names.

- International Scientific Resource – Kaua'i's forest birds are of great international scientific interest. They are the **foremost example of 'adaptive radiation' in the world**, having all evolved from one single common ancestor. Darwin's finches are an example of the same process, but the Galapagos had only 15 different species compared to Hawaii's 50 species of honeycreeper. In addition, 'Akikiki is the only species in its genus worldwide and has a highly unusual sweet smell. Kaua'i should be proud of being a 'natural laboratory for the study of evolution' – but this 'lab' is now at risk and requires help to sustain and restore for future generations.
- Sustainability In Line with Kaua'i County General Plan - The Kaua'i County General Plan 2018 documents the view of Kaua'i residents that sustainability should drive planning for the future. The Plan recognizes that "Kaua'i's natural environment provides the foundation for a sustainable and equitable society, which in turn creates and supports a sustainable economy." The plan goes on to say that "Kaua'i's natural ecosystems, coupled with its multi-ethnic culture, are what make Kaua'i truly unique. These qualities and features are irreplaceable and exist nowhere else in the world, and therefore deserve protection in perpetuity. Specific examples include endemic and endangered species". If these are not to be empty words, funding is needed to make sure these priorities are addressed. The General Plan has the following key objective: "To protect the flora and fauna unique to Kaua'i and Hawai'i and to mitigate the impact of invasive species".

The General Plan also has sub-objectives, such as to:

- b) Support projects that conserve and protect our remaining endemic forests and landscapes in the upper watershed.
- c) Educate the public and visitors about native species protection, ... the spread of invasive species, and water quality protection.
- d) Increase opportunities for public access to forests in a way that is ecologically sustainable.

This project helps to fulfil those objectives in a very cost-effective manner.

- Preparing for Climate Change - The Kaua'i County General Plan states that we should "prepare for impacts to the island"; the preparatory mosquito control in this project is an excellent example of a proactive response to the effects of climate change on our native wildlife.
- Protecting the Ahupua'a - Conservation on Kaua'i is inspired by the ahupua'a concept, which was first used on this island. Since the mountains and the lowlands are intricately connected, damage upstream causes severe problems downstream, including flooding, sedimentation and pollution. If we lose the forest birds, thus allowing our forests to further degrade, we put our future water supply and our own health and wellbeing at risk. We also reduce our resilience in the face of hurricanes and climate change. With

the partnership of the Hawaiian Legislature, through a Grant-In-Aid, we can do more to protect these common assets.

#### **5. Describe the target population to be served;**

Kaua'i County has a population of 72,000 (US Census Bureau 2016). 18% of the population is 65 or older; 22% are under 18. In Kaua'i, 25% of inhabitants are Native Hawaiian or Other Pacific Islanders, 29% are white, 26% are Asian and 20% are more than two races (KCHNA). 28% have a graduate degree. The average household income is \$60,000 to 70,000, which is lower than the state average. 14% of households experience food insecurities.

Kaua'i's population was 28,176 in 1960. By 2010, the population grew to 67,091. Over a period of five decades, Kaua'i's population increased by 138% while the State's total population increased by 115% (KCHNA, 2013). This rapid growth is projected to continue and brings with it a responsibility to protect the 'āina that sustains us all.

The Kaua'i County General Plan 2018 states that local residents feel "times are tougher than ever" and that "quality of life is burdened by Kaua'i's unresolved issues". The plan also notes that Kaua'i remains vulnerable to overdependence on tourism.

KFBRP is based on the West side of Kaua'i, in Hanapepe. This is a rural region that has traditionally been economically challenged and underserved, compared to central areas on Kaua'i and the rest of the State.

This project will strive to involve and educate the local populations living on Kaua'i but will also target the entire state population, encouraging both groups to support native species and hopefully stimulating similar actions on other islands.

#### **6. Describe the geographic coverage.**

The KFBRP office is based in Hanapepe and the additional office space required for this project would also be located on the west side of Kaua'i. However, the project will provide island-wide ecosystem benefits. It will also provide island-wide learning opportunities for interns and volunteers, including high school students and /or the Kaua'i Community College (KCC) and beyond.

The project site is located in the Alaka'i Plateau in the upland center of Kaua'i Island. This 12,000-acre wilderness is Kaua'i's largest contiguous tract of native montane wet forest and bog communities, and a top conservation priority. The Alaka'i harbors a rich assemblage of native flora and fauna, including 50 endangered plant species. It is located near Mount Wai'ale'ale, one of the wettest spots on Earth. The ranges of all three endangered, endemic forest birds are confined to this region (see map Figure 1)

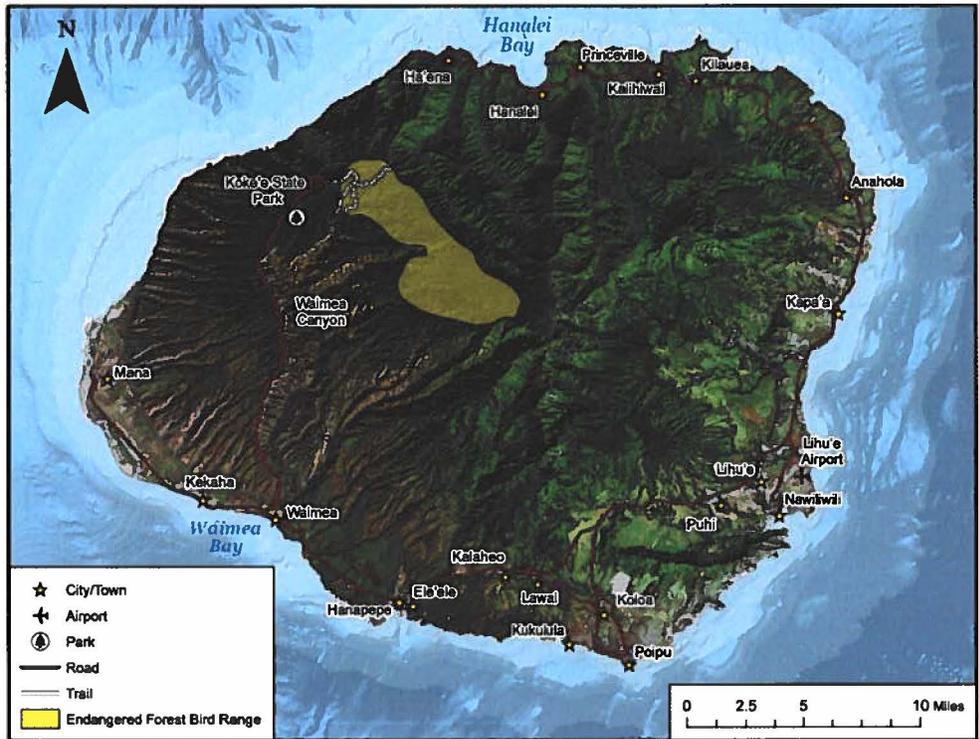


Figure 1: Map showing the range of Kauai’s endangered forest birds and the major towns, including Hanapepe, home base of KFBPR and location of proposed additional office space.

**III. Service Summary and Outcomes**

The Service Summary shall include a detailed discussion of the applicant’s approach to the request. The applicant shall clearly and concisely specify the results, outcomes, and measures of effectiveness from this request. The applicant shall:

1. Describe the scope of work, tasks and responsibilities;

**NOTE: The deadlines outlined throughout this proposal are based on receipt of grant funds by June 2019, however we understand that very often, funds are received much later than this. Our project can go ahead whenever the funds are received; the deadlines will simply be moved back the appropriate number of months following receipt of funds.**

The Scope of Work of the project comprises of the following:

**Communities in Conservation**

- A key component to ‘Communities in Conservation’ will be the **Citizen Science Project** to study invasive mosquitos that carry avian malaria and pox, as well as other diseases which can be deadly to humans.

Local communities will get involved in catching mosquitos in lowland locations. This will support future work to target mosquitos effectively.

**Deliverable: Citizen Science Project to study avian malaria and pox**

Milestone 1: Recruit and train 20-30 citizen scientists  
 Deadline: Dec 2019  
 Responsibility: Outreach Specialist

Milestone 2: Mosquito lowland project trapping ongoing for 6 months, collation of data, analysis of data, final report  
 Deadline: Jun 2020  
 Responsibility: Project Manager - Dr. Crampton

Milestone 3: Hire Fieldworker; 0.5 FTE  
 Deadline: Sep 2019  
 Responsibility: Project Manager – Dr. Cali Crampton & Administrator GIRC&D - Carolyn Lum

- In order for this innovative, community-based approach to succeed, an Outreach Specialist is required to manage volunteers, interns, outreach and education. This will ensure that core staff are able to focus on their research work, with the assistance of the participants, as opposed to devoting already stretched time resources to managing participants.

**Deliverable: Intern program - develop a sustainable intern program to mentor and train future conservationists & scientists on Kaua'i.**

Milestone 1: Hire Outreach Specialist; 1 FTE  
 Deadline: Sep 2019  
 Responsibility: Project Manager – Dr. Cali Crampton & Administrator GIRC&D - Carolyn Lum

Milestone 2: Source interns from Kupu organization or elsewhere and provide appropriate ongoing training  
 Deadline: Sep 2019.  
 Responsibility: Project Manager – Dr. Cali Crampton & Administrator GIRC&D - Carolyn Lum

**Deliverable: Outreach and Education**

Milestone 1: Write communications plan  
 Deadline: Oct 2019  
 Responsibility: Outreach Specialist

Milestone 2: Public education through service-learning projects in Kōke'e; at least one event.  
 Deadline: Dec 2019 onwards  
 Responsibility: Outreach Specialist

- Milestone 3: 4+ public lectures, 4+ booths at events, 12+ talks local schools, colleges and libraries, 6+ press releases, 2 radio slots, 4+ feature articles, weekly social media posts  
 Deadline: Spread throughout year  
 Responsibility: Outreach Specialist
- Milestone 4: Work with Kaua'i High School and Waimea High School students on science fair and research projects  
 Deadline: Jun 2020  
 Responsibility: Outreach Specialist

Table 1 summarizes these deliverables, milestones, measures of effectiveness and results.

Deliverable	Milestone	Measure of Effectiveness	Deadline	Result	Responsibility
<b>Communities in Conservation</b>					
Citizen Science Project to study avian malaria & pox	Recruitment and training of 20-30 citizen scientists	i) 20-30 citizen scientists recruited, trained and operational	Dec 2019	Citizens engaged in forest bird project in meaningful way	Outreach Specialist
	Mosquito lowland project trapping ongoing for 6-9 months, collation of data, analysis of data, final report	i) 6-9 months of data collected ii) analysis completed iii) report completed by end of year one	Jun 2020	Data now available for scientists to implement second phase of project	Project Manager - Dr. Crampton
	Hire fieldworker to support interns / vols 0.5FTE	Fieldworker operational	Sep 2019	Volunteers and interns able to enter field with well trained and supportive fieldworker	Project Manager - Dr. Crampton
Develop sustainable intern program to mentor and train future conservationists on Kaua'i.	Hire Outreach Specialist. 1 FTE	Specialist in place by deadline	Sep 2019	Volunteers and interns meaningfully engaged with project	Project Manager & Administrator GIRC&D - Carolyn Lum
	Hire interns	Interns in place by deadline	Sep 2019	Volunteers and interns meaningfully engaged with project	Project Manager & Administrator
	Provide appropriate intern training and have interns operational	Volunteers and interns provided with appropriate training and able to begin work in field	Sep 2019 & ongoing	Volunteers and interns meaningfully engaged with project	Outreach Specialist
Outreach and education	Write communications plan	Communications plan complete on time and to a high standard	Oct 2019	Awareness of issues surrounding Kaua'i Forest Birds increases locally, nationally and internationally	Outreach Specialist
	Public education through service-learning projects in Koke'e; at least one event.	Service learning project complete. Satisfaction survey indicates 75% of participants to feel learning project was of benefit to them.	Dec 2019	Local people engaged in project. KFBRP able to gauge feedback.	Outreach Specialist
	4+ public lectures and 4+ booths at events.	i) 4+ public lectures ii) 4+ booths at events complete	One per quarter	Local people informed about project	Outreach Specialist
	12+ talks local schools, colleges and libraries	12+ x talks local schools, colleges and libraries complete	One per month	Local people and particularly children informed about project	Outreach Specialist
	6+ press releases, 2 radio slots annually	6+ press releases, 2 x yearly radio slots complete	Jun 2020	Awareness of issues surrounding Kaua'i Forest Birds increases locally, nationally and internationally	Outreach Specialist
	4 x yearly feature articles, weekly social media posts	4 x yearly feature articles, weekly social media posts undertaken	4 articles annually, one post weekly	Awareness of issues surrounding Kaua'i Forest Birds increases locally, nationally and internationally	Outreach Specialist
	Work with Kaua'i High School, Waimea High School and/or KCC students on science fair and research projects	Assisted 10+ students with science fair and research projects	Jun 2020	Local high school children inspired by project	Outreach Specialist

Table 1: Communities in Conservation Scope of Work

**Local Conservation Support Items**

- Two weather ports (shelters) are required, with composting toilets and boardwalks, to protect the delicate Alaka'i Wilderness during our volunteer / intern program.

**Deliverable:** *Create support items to protect the delicate Alaka'i Wilderness during volunteer / intern program: 2 x shelters, 2 x composting toilets & boardwalk*

- Milestone 1: Obtain Permits  
 Deadline: Before project commences  
 Responsibility: DOFAW – Sheri Mann
- Milestone 2: Order Materials  
 Deadline: Jul 2019  
 Responsibility: DOFAW – Sheri Mann
- Milestone 3: Fly items out to site  
 Deadline: Sep 2019  
 Responsibility: DOFAW – Sheri Mann
- Milestone 4: Commence set up of shelter domes  
 Deadline: Sep 2019  
 Responsibility: DOFAW – Sheri Mann
- Milestone 5: Complete set up of shelter domes  
 Deadline: Dec 2019  
 Responsibility: DOFAW – Sheri Mann

Table 2 summarizes these deliverables.

Deliverable	Milestone	Measure of Effectiveness	Deadline	Result	Responsibility
<b>Local Conservation Support Items</b>					
Set up support items to protect the delicate Alaka'i	Obtain permits	Permits in place before project begins	Pre Project	Timely start to project	DOFAW - Sheri Mann
	Order materials	Materials ordered	Jul 2019	Timely start to project	DOFAW - Sheri Mann
	Fly out shelter and supplies to site	Materials delivered and on site on time and to budget	Sep 2019	Timely start to project	DOFAW - Sheri Mann
	Commence set up of shelter etc.	Set up begun	Sep 2019	Support items mean that no damage occurs at delicate Alaka'i locations due to additional traffic	DOFAW - Sheri Mann
	Complete set up	Set up completed on time and to a high standard	Dec 2019	as above	DOFAW - Sheri Mann
	Final check of set up	Items in place by deadline	Dec 2019	as above	DOFAW - Sheri Mann

Table 2: Local Conservation Support Items Scope of Work

**Conservation in Action**

- To protect the birds more effectively, in tandem with our community project, we need on-the-ground conservation action. That will include a volunteer project to **expand removal of invasive rodents and other predators in key forest bird areas**. Forest birds evolved without any mammalian predators and are defenseless against alien predators. Rats also eat seeds, preventing native plants from regenerating.

***Deliverable: Volunteer project to remove predators***

- |                 |  |
|-----------------|--|
| Milestone 1:    | Expand project plan to remove rats, purchase equipment, commence project |
| Deadline:       | Sep 2019   |
| Responsibility: | Project Manager – Dr. Cali Crampton                                      |
| Milestone 2:    | Hire Fieldworker; 0.5 FTE  |
| Deadline:       | Sep 2019   |
| Responsibility: | Project Manager – Dr. Cali Crampton & Administrator GIRC&D - Carolyn Lum |
| Milestone 3:    | Source and train volunteers / interns to staff project                   |
| Deadline:       | Nov 2019   |
| Responsibility: | Outreach Specialist  |
| Milestone 4:    | Volunteers operational in the field and additional rat traps installed   |
| Deadline:       | Dec 2019   |
| Responsibility: | Project Manager – Dr. Cali Crampton / Outreach Specialist                |

- Invasive weed suppression in forest bird hotspots, in collaboration with local groups/organizations ( KRCP & DOFAW). The establishment of invasive weeds is one of the greatest threats to these endangered species.

***Deliverable: Collaboration with local group (KRCP) to remove invasive weeds in forest bird hotspots, improve forest habitat through natural regeneration and eradicate standing water caused by weeds.***

- |                 |  |
|-----------------|--|
| Milestone 1:    | Scope of work (SoW) written, contract written and signed with KRCP to deliver weed control in Forest Bird breeding hotspots. SoW to include map of weed locations, details of methods to be employed by species and a timeline |
| Deadline:       | Aug 2019   |
| Responsibility: | Project Manager – Dr. Cali Crampton and Administrator - Carolyn Lum  |
| Milestone 2:    | Weed control commences   |
| Deadline:       | Sep 2019 (and ongoing)   |
| Responsibility: | Project Manager – Dr. Cali Crampton  |
| Milestone 3:    | KRCP to complete weed removal for year one as outlined in SoW  |
| Deadline:       | Jun 2020   |
| Responsibility: | Project Manager – Dr. Cali Crampton  |

- Training of students, volunteers and interns in essential conservation work including mist netting and telemetry is a key part of the project. This allows KFBRP to fit tiny transmitters to the birds so that they can study them more effectively and identify / protect key breeding and feeding habitat. Essential supplies include telemetry tags, and other field and safety equipment (the towers themselves and batteries have been supplied and paid for by DOFAW).

***Deliverable: Training of students, volunteers and interns in essential conservation work including mist netting and telemetry***

Milestone 1: Training of interns and volunteers on telemetry to help KFBRP and provide participants with transferable skills

Deadline: Nov 2019

Responsibility: Project Manager – Dr. Cali Crampton

Milestone 2: Telemetry carried out, data analyzed, final report and future action plan produced.

Deadline: Feb to Jun 2020

Responsibility: Project Manager – Dr. Cali Crampton

Table 3 summarizes these deliverables

Deliverable	Milestone	Measure of Effectiveness	Deadline	Result	Responsibility
<b>Conservation in Action</b>					
Volunteer project to remove rats	Expand project plan to remove rats, purchase equipment, commence project	Rat project underway	Sep 2019	Evidence of regular rat eradication on trap counters	Project Manager - Dr. Crampton
	Hire fieldworker to support interns / vols 0.5FTE	Fieldworker operational	Sep 2019	Volunteers and interns able to enter field with well trained and supportive fieldworker	Project Manager & Administrator
	Source and train volunteers / interns	Volunteers and interns trained	Nov 2019	No core staff time diverted from essential research work	Outreach Specialist
	Volunteers operational in the field and rat traps installed	Rat traps installed and fully functioning	Dec 2019	Volunteers and interns actively contributing to efficiency gains in project	Project Manager - Dr. Crampton
Collaboration with local group KRCP to remove invasive weeds in forest bird hotspots.	Scope of work written, contract written and signed with KRCP to deliver weed control in Forest Bird breeding hotspots. SoW to include map of weed locations, details of methods to be employed by species and a timeline	Scope of work and contract complete	Aug 2019 (and ongoing)	Timely start and clear outline of work	Project Manager & Administrator
	Weed control commences	Map complete	Sep 2019: ongoing	Timely start and clear outline of work	Project Manager - Dr. Crampton
	KRCP to complete weed removal as outlined in action plan	All weed areas outlined in initial scope of work removed by end of project	Jun 2020	Weeds removed and forest restored, risk of standing water that can harbor mosquitos reduced.	Project Manager - Dr. Crampton
Training of students, volunteers and interns in essential conservation work	Training of interns and volunteers on telemetry to help KFBRP and provide participants with transferable skills	Interns and volunteers fully able to assist with telemetry work while learning useful skills	Feb to Jun 2020	Additional personnel resources available through volunteers and interns	Project Manager - Dr. Crampton
	Telemetry carried out (note: timing is wholly dependent on breeding season and may change depending on when GIA is approved, or roll over into following year)	Telemetry work complete for this year and research data analysis in an advanced state for draft paper scientific paper (to be completed in year two). Note - additional data may be required in following year	Feb to Jun 2020	Essential telemetry work has enough staff and interns / volunteers to go ahead and provides vital data on diet, preferred habitat and other behavior of forest birds which will facilitate their protection	Project Manager - Dr. Crampton

Table 3: Conservation in Action Scope of Work

### Effectively Manage and Administer the Project

- To ensure that we meet our objectives, the project will be carefully managed as follows:

#### **Deliverable: Secure office space.**

Milestone 1: Sourcing & renting of office location and office set up  
 Deadline: Oct 2019  
 Responsibility: Project Manager – Dr. Crampton

#### **Deliverable: Ensure good financial management**

Milestone 1: Receive and Administer Funds  
 Deadline: Jul 2019  
 Responsibility: Administrator – Carolyn Lum

Milestone 2: Carry out all accounting work in a timely and accurate fashion and report quarterly to Dr. Crampton and Sheri Mann  
 Deadline: Oct 2019, Jan 2020, Mar 2020, Jun 2020  
 Responsibility: Administrator – Carolyn Lum

Table 4 summarizes these deliverables

Deliverable	Milestone	Measure of Effectiveness	Deadline	Result	Responsibility
<b>Effectively manage and administrate the project</b>					
Sourcing & renting of office location and office set up	Sourcing & renting of office location and office set up	Office fully operational and available for public visit by deadline	Oct 2019	Public able to access educational space to learn more about project.	Project Manager - Dr. Crampton
	Receive and Administer Funds	Funds accessible	Jul 2019	Project able to proceed financially	Administrator - Carolyn Lum
	Carry out all accounting work in a timely and accurate fashion and report quarterly to Dr. Crampton and Sheri Mann	Accurate quarterly reports	Oct 2019, Jan 2020, Mar 2020, Jun 2020	Project finishes within budget	Administrator - Carolyn Lum

**Table 4. Effectively administer and manage the project**

2. Provide a projected annual timeline for accomplishing the results or outcomes of the service;

Table 5 (2019) and Table 5a (2020) outline the timeline for the project results.

Deadline	Deliverable	Milestone	Result
<b>2019</b>			
Pre project	Install items to protect the delicate Alaka'i Wilderness during volunteer / intern program: 2 weatherports, 2 composting toilets, boardwalk	Obtain permits	Permits in place
Jul	Ensure good financial management	Receive and administer funds	No financial delays, project able to proceed.
Jul	Install items to protect the delicate Alaka'i Wilderness during volunteer / intern program: 2 weatherports, 2 composting toilets, boardwalk	Order materials	Materials received in timely fashion
Jul	Volunteer project to remove rats	Expand project plan to remove rats	Evidence of regular rat eradication on trap counters
Aug	Volunteer project to remove rats	Source and train volunteers / interns	No core staff time diverted from essential research work
Aug	Collaboration with local group (e.g. KRCP) to remove invasive weeds in forest bird hotspots.	Scope of work written, contract written and signed with KRCP to deliver weed control in Forest Bird breeding hotspots. SoW to include map of weed locations, details of methods to be employed by species and a timeline	Timely start and clear outline of work
Sep	Volunteer project to remove rats / telemetry project	Hire fieldworker(s) 2 x 0.5FTE	Volunteers supported in the field by trained staff member.
Sep	Outreach work: develop a sustainable intern program to mentor and train future conservationists on Kaua'i.	Hire Outreach Specialist	Volunteers and interns meaningfully engaged with project
Sep (ongoing)	Outreach work : develop a sustainable intern program to mentor and train future conservationists on Kaua'i.	Provide appropriate intern training and have interns operational	Volunteers and interns meaningfully engaged with project
Sep	Install items to protect delicate Alaka'i Wilderness	Fly out items (weatherport kits etc) to site	Items installed on time
Sep	Install items to protect delicate Alaka'i Wilderness	Commence set up	Items installed on time
Sep (ongoing)	Install items to protect delicate Alaka'i Wilderness	Weed control commences	Weed control commences on time
Oct	Secure office space	Sourcing & renting of office location and office set up	Public able to access office and learn more about project's work.
Oct	Outreach work : develop a sustainable intern program to mentor and train future conservationists on Kaua'i.	Hire interns	Volunteers and interns meaningfully engaged with project
Oct	Outreach and education	Write communications plan	Awareness of issues surrounding Kaua'i Forest Birds increases locally, nationally
Nov	Training of students, volunteers and interns in essential conservation work including mist netting and telemetry	Training of interns and volunteers on telemetry to help KFBRP and provide participants with transferable skills	Additional personnel resources available through volunteers and interns
Dec	Volunteer project to remove rats	Volunteers operational in the field and rat traps installed	Volunteers and interns actively contributing to efficiency gains in project, rat predation reduced
Dec	Citizen Science Project to study avian malaria and pox	Recruitment and training of 20-30 citizen scientists	Citizens engaged in forest bird project in meaningful way
Dec	Outreach and education	Public education through service-learning projects in Kōke'e; at least one event. Will include satisfaction survey completed by participants	Local people engaged in project. KFBRP able to gauge feedback.
Dec	Install items to protect the delicate Alaka'i Wilderness	Complete set up	Item installation means that no damage occurs at delicate Alaka'i locations due to additional traffic

Table 5: Timeline of Project Results – 2019

Deadline	Deliverable	Milestone	Result
2020			
Jan	Install items to protect the delicate Alaka'i Wilderness	Final completion	Weatherport etc. installation means that no damage occurs at delicate Alaka'i locations due to additional traffic
Feb - Jun	Training of students, volunteers and interns in essential conservation work including mist netting and telemetry	Telemetry carried out with help of interns and volunteers	Additional personnel resources available through volunteers and interns, increasing effectiveness of project
Jun	Citizen Science Project to study avian malaria and pox	Mosquito lowland project trapping ongoing for 6-9 months, collation of data, analysis of data, final report	Data now available for scientists to implement second phase of project
Jun	Collaboration with local group KRCP to remove invasive weeds in forest bird hotspots.	KRCP to complete weed removal as outlined in action plan	Weeds removed and forest restored, risk of standing water that can harbor mosquitos reduced.
Jun	Outreach and education	Work with Kaua'i High School, Waimea High School and/or KCC students on science fair and research projects	Local high school children inspired by project and given transferable skills
Quarterly	Ensure good financial management	Carry out all accounting work in a timely and accurate fashion and report quarterly to Dr. Crampton and Sheri Mann	Project proceeds and completes within budget
Annually	Outreach and education	6+ press releases, 2 radio slots annually	Awareness of issues surrounding Kaua'i Forest Birds increases locally, nationally and internationally
Annually	Outreach and education	4+ public lectures and 4+ booths at events.	as above
Annually	Outreach and education	12+ talks local schools, colleges and libraries	Local people and particularly children informed about project
Annually	Outreach and education	4 x yearly feature articles, weekly social media posts	Local people informed about project

Table 5a: Timeline of Project Results – 2020

3. Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results;

The project has been carefully designed to ensure that each deliverable is broken down into milestones to help track project process. In addition, a measure of effectiveness has been applied to each milestone to ensure quality control (see Table 1-4).

The project will be managed and overseen by Dr. Crampton, Ms. Sheri Mann, the GIRC&D board and the administrator, Carolyn Lum. See section VI for their relevant experience. They will meet quarterly to evaluate progress and will feedback to staff any necessary changes to improve results. These meetings will be documented and minutes from each will form the basis of the next meeting. Where problems are encountered, Dr. Crampton, Ms. Mann & GIRC&D will outline remedial action in writing and follow up to ensure relevant steps have been taken to correct issues.

4. List the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending agency). The measure(s) will provide a standard and objective way for the State to assess the program's achievement or accomplishment. Please note that if the level of appropriation differs from the amount included in this application that the measure(s) of effectiveness will need to be updated and transmitted to the expending agency.

See Tables 1-5 above

## BUDGET REQUEST BY SOURCE OF FUNDS

Period: July 1, 2019 to June 30, 2020

Applicant: GIRC&D

BUDGET CATEGORIES	Total State Funds Requested (a)	Total Federal Funds Requested (b)	Total County Funds Requested (c)	Total Private/Other Funds Requested (d)
<b>A. PERSONNEL COST</b>				
1. Salaries and healthcare	\$ 87,528			61,133
2. Payroll Taxes & Assessments (social security/medicare/sut/workers comp only).	\$ 6,912			7,492
3. Fringe Benefits	\$ 19,590			25,025
<b>TOTAL PERSONNEL COST</b>	<b>\$ 114,030</b>			<b>93,650</b>
<b>B. OTHER CURRENT EXPENSES</b>				
1. Airfare, Inter-Island				
2. Insurance	5,000			
3. Lease/Rental of Equipment				
4. Lease/Rental of Space	26,000			5,000
5. Staff Training				
6. Supplies	22,473			
7. Telecommunication				
8. Utilities	6,000			
9. Intern Stipends	20,000			18,000
10. Helicopter transport (shelter construction)	8,000			8,000
11. Contract to remove weeds	15,000			
12. Overheads	31,153			
13				
14				
15				
16				
17				
18				
19				
20				
<b>TOTAL OTHER CURRENT EXPENSES</b>	<b>133,626</b>			<b>31,000</b>
<b>C. EQUIPMENT PURCHASES</b>	<b>95,027</b>			<b>5,000</b>
<b>D. MOTOR VEHICLE PURCHASES</b>				
<b>E. CAPITAL</b>				
<b>TOTAL (A+B+C+D+E)</b>	<b>342,683</b>			<b>129,650</b>
<b>SOURCES OF FUNDING</b>		Budget Prepared By:		
(a) Total State Funds Requested	342,683	Helen Raine on behalf of Dr. Crampton & Mr. Moe 808 2946626		
(b) Total Federal Funds Requested		Name (Please type or print)		
(c) Total County Funds Requested				
(d) Total Private/Other Funds Requested	129,650	Signature of Authorized Official		
<b>TOTAL BUDGET</b>	<b>472,333</b>	Owen Moe, President, GIRC&D		
		Name and Title (Please type or print)		

**Note: Column D funds come from DOFAW and KFBRP match funding.**

**BUDGET JUSTIFICATION - PERSONNEL SALARIES AND WAGES**

Period: July 1, 2019 to June 30, 2020

Applicant: GIRC&D

POSITION TITLE	FTE	ANNUAL SALARY A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
Outreach Specialist	1	\$75,015.00	100.00%	\$ 75,015.00
Fieldworker to support vols/interns in avian malaria / rat eradication project	0.5	\$19,507.50	100.00%	\$ 19,507.50
Fieldworker to support telemetry project	0.5	\$19,507.50	100.00%	\$ 19,507.50
				\$ -
				\$ -
				\$ -
				\$ -
<b>TOTAL:</b>				<b>114,030.00</b>
<b>JUSTIFICATION/COMMENTS: The above are new positions required to support the project. Match funding will be provided though DOFAW and KFBRP staff time. Details available on request</b>				

## BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Period: July 1, 2019 to June 30, 2020

Applicant: GIRC&D

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST	TOTAL BUDGETED
2 Dome Shelter Kit, Shipping & Transport	2	\$25,000	\$ 50,000.00	50000
2 Composting Toilets & Installation - <i>Sunmar</i>	2	\$2,500	\$ 5,000.00	5000
Forest Bird Basecamp Boardwalk Replacement	1	\$10,000	\$ 10,000.00	10000
Telescoping poles	4	\$70	\$ 280.00	280
Citizen science project mosquito catching materials	8	\$250	\$ 2,000.00	2000
Good Nature Traps kits (with base bait and cannisters)	100	\$167	\$ 16,667.00	16667
Tethers / trap mount	100	\$6	\$ 580.00	580
Telemetry Tags	30	\$250	\$ 7,500.00	7500
GPS	4	\$250	\$ 1,000.00	1000
Emergency Beacons	4	\$250	\$ 1,000.00	1000
Field Materials (raincoats and boots)	4	\$250	\$ 1,000.00	1000
<b>TOTAL:</b>	<b>17</b>		<b>\$ 95,027.00</b>	<b>\$ 95,027.00</b>

**JUSTIFICATION/COMMENTS:**

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
n/a			\$ -	
			\$ -	
<b>TOTAL:</b>				

## BUDGET JUSTIFICATION - CAPITAL PROJECT DETAILS

Period: July 1, 2019 to June 30, 2020

Applicant: GIRC&D

FUNDING AMOUNT REQUESTED						
TOTAL PROJECT COST	ALL SOURCES OF FUNDS RECEIVED IN PRIOR YEARS		STATE FUNDS REQUESTED	OTHER SOURCES OF FUNDS REQUESTED	FUNDING REQUIRED IN SUCCEEDING YEARS	
	FY: 2017-2018	FY: 2018-2019	FY:2019-2020	FY:2019-2020	FY:2020-2021	FY:2021-2022
PLANS						
LAND ACQUISITION						
DESIGN						
CONSTRUCTION						
EQUIPMENT						
<b>TOTAL:</b>						
<b>JUSTIFICATION/COMMENTS: no capital expenses</b>						

**GOVERNMENT CONTRACTS, GRANTS, AND / OR GRANTS IN AID**

Applicant: GIRC&D

Contracts Total: 1,379,806

	<b>CONTRACT DESCRIPTION</b>	<b>EFFECTIVE DATES</b>	<b>AGENCY</b>	<b>GOVERNMENT ENTITY (U.S. / State / Haw / Hon / Kau / Mau)</b>	<b>CONTRACT VALUE</b>
1	Sunshine Market Monitoring	10/1/14-9/30/15	County of Kauai	Kauai Cty	25,600
2	Makauwahi Cave Reserve	10/1/15-9/30-16	County of Kauai	Kauai Cty	6,667
3	Makauwahi Cave Reserve	10/1/14-9/30/17	HI Tourism Authority	State	64,600
4	Kokee Resource Conservation Program	10/1/14-9/30-17	HI DLNR	State	260,300
5	Kokee Resource Conservation Program	10/1/14-9/30-17	HI Tourism Authority	State	56,000
6	Kokee Resource Conservation Program	10/1/15-9/30/16	Kauai Inv. Species	State	21,649
7	Kokee Resource Conservation Program	10/1/14-9/30/15	US Fish Wildlife Svc	US	5,000
8	North Shore Shuttle Pilot Program	10/1/15-9/30/17	County of Kauai	Kauai Cty	160,000
9	Kauai Landscape Industry Council	10/1/14-9/30/17	Kaulunani Forestry	US & State	21,705
10	Kauai Invasive Species Committee	10/1/15-9/30/16	US Fish Wildlife Svc	US	8,537
11	Kauai Invasive Species Committee	10/1/14-9/30/17	County of Kauai	Kauai Cty	140,000
12	Ho`oulu Hawaiian Culture Program	10/1/14-9/30-15	Office of Hawn Affairs	State	9,000
13	Kauai Beekeepers	10/1/14-9/30-15	County of Kauai	Kauai Cty	9,000
14	Kokee Resource Conservation Program	10/1/18-9/30/20	US Ag - NRCS	US	431,748
15	Kokee Resource Conservation Program	10/1/18-9/30/20	HI DLNR	State	160,000

**IV. Financial****Budget**

1. *The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.*
  - a. Budget request by source of funds ([Link](#))
  - b. Personnel salaries and wages ([Link](#))
  - c. Equipment and motor vehicles ([Link](#))
  - d. Capital project details ([Link](#))
  - e. Government contracts, grants, and grants in aid ([Link](#))
2. *The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2020.*

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$235,966	\$53,358	\$53,358	\$0	\$342,638

3. *The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2020.*

Some for fiscal year 2020 have already been received (see table) or are planned. However, projects under the GIRC&D umbrella are likely to apply for additional grants but have not yet indicated which funds they intend to seek. Projects apply for grants as they arise.

CONTRACT DESCRIPTION	EFFECTIVE DATES	AGENCY	ENTITY	CONTRACT VALUE
KFBRP	1-Jun-19	HTLA	Business Assoc.	\$ 5,500
KFBRP	1-Jun-19	Rotary	Non Profit	\$ 1,500
Royal Order of Kamehameha	1-Jun-19	Grant in Aid	State	\$200,000
Makauwahi Cave Reserve	1-Jun-19	Grant in Aid	State	\$132,000
Makauwahi Cave Reserve	10/1/18-9/30/20	HI Community Fdn	Non Profit	\$ 60,000
Makauwahi Cave Reserve	10/1/18-9/30-20	Grove Farm Fdn	Non Profit	\$ 50,000
KRCP	10/1/18-9/30/20	US Ag - NRCS	US	\$431,748
KRCP	10/1/18-9/30/20	Nature Conservancy	Non Profit	\$ 75,000
KRCP	10/1/18-9/30/20	HI DLNR	State	\$160,000

4. *The applicant shall provide a listing of all state and federal tax credits it has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.*

None

5. *The applicant shall provide a listing of all federal, state, and county government contracts, grants, and grants in aid it has been granted within the prior three years and will be receiving for fiscal year 2020 for program funding.*

CONTRACT DESCRIPTION	EFFECTIVE DATES	AGENCY	GOVERNMENT ENTITY (U.S. / State / Haw / Hon / Kau / Mau)	CONTRACT VALUE
Kauai Invasive Species Committee	10/1/15-9/30/16	US Fish Wildlife Svc	US	\$ 8,537
Makauwahi Cave Reserve	10/1/15-9/30/16	County of Kauai	Kauai Cty	\$ 6,667
Makauwahi Cave Reserve	10/1/14-9/30/17	HI Tourism Authority	State	\$ 64,600
Kokee Resource Conservation Program	10/1/14-9/30/17	HI DLNR	State	\$ 260,300
Kokee Resource Conservation Program	10/1/14-9/30/17	HI Tourism Authority	State	\$ 56,000
North Shore Shuttle Pilot Program	10/1/15-9/30/17	County of Kauai	Kauai Cty	\$ 160,000
Kauai Invasive Species Committee	10/1/14-9/30/17	County of Kauai	Kauai Cty	\$ 140,000
Kokee Resource Conservation Program	10/1/18-9/30/20	US Ag - NRCS	US	\$ 431,748
Kokee Resource Conservation Program	10/1/18-9/30/20	HI DLNR	State	\$ 160,000
<b>Total</b>				<b>\$ 1,287,852</b>

6. *The applicant shall provide the balance of its unrestricted current assets as of December 31, 2018.*

The balance of unrestricted assets is \$229,664.46

**V. Experience and Capability**

**1. Necessary Skills and Experience**

*The applicant shall demonstrate that it has the necessary skills, abilities, knowledge of, and experience relating to the request. State your experience and appropriateness for providing the service proposed in this application. The applicant shall also provide a listing of verifiable experience of related projects or contracts for the most recent three years that are pertinent to the request.*

**Dr. Lisa ‘Cali’ Crampton**

The project will be managed by Dr. Cali Crampton of the Kaua’i Forest Bird Recovery Project. Dr. Crampton has been the KFBRP Leader since April 2010, overseeing research into the ecology and conservation of Kaua’i’s native forest birds. She is an expert conservation project

manager and has wide experience of outreach, volunteer management and grant management in all aspects of her current project and in her previous work experience.

Dr. Crampton has the scientific credentials to deliver what is required in this Grant-In-Aid. She obtained her Ph.D. in Ecology, Evolution and Conservation Biology from the University of Nevada at Reno in December 2004, where she examined the landscape ecology and conservation of Phainopeplas, threatened passerines in southern Nevada. She has previously worked at the USGS Kilauea Field Station on Hawai'i Island, where she analyzed field data on the endangered Laysan teal to improve monitoring and management strategies. Subsequently, for the US Forest Service, she analyzed impacts of recreation on abundance of Sierra Nevada forest birds, small mammals and carnivores. Dr. Crampton has extracted and ringed hundreds of passerines.

She has been working closely with Dr. Dennis Lapointe of USGS in her efforts to halt the alarming declines for forest birds on Kaua'i. Lapointe is a wildlife disease specialist with a particular focus on vector-borne avian disease and mosquito ecology. He will be providing the mosquito expertise for this project to complement Dr. Crampton's avian expertise, Dr. Crampton has also been working with Dr. Eben Paxton of USGS to develop and deploy the telemetry towers.

All of Dr. Crampton's projects have involved substantial interaction and communication with scientific and non-scientific groups, including interpretative programs for the general public. Her record includes numerous journal publications, technical reports, and conference presentations as well as popular articles and TV shows.

### **Sheri S. Mann**

Sheri S. Mann will provide invaluable technical support, monitoring and fiscal oversight for the project. Mann has had experience of two Grant-In- Aid projects (which includes monitoring and providing fiscal oversight): 1) Kokua Kalihi Valley infrastructure expansion on Oahu and 2) Malama O Puna endangered plant protection in Nanawale Forest Reserve on Hawai'i Island.

In her role as the District Manager for the Division of Forestry and Wildlife on Kaua'i, Mann is responsible for a number of programs aimed at protecting, conserving, managing and enhancing one third of the island of Kaua'i. This includes oversight of over 70 civil service employees and University of Hawai'i contractors whose jobs vary from trail and access management to common and endangered plant and bird management. Prior to moving to Hawai'i and working with the State of Hawai'i in 2004, Mann was the Territorial Forester for American Samoa from 1999-2004 where she worked on forestry and wildlife protection issues throughout the Samoan archipelago and across the US Affiliated Pacific Islands. Before earning her Master of Science in Forestry at the University of Northern Arizona, she was an Agroforester in the Peace Corps in Niger, West Africa from 1990-1993, where she learned to love the emergence of human culture and raw nature.

### **Carolyn Lum**

Carolyn Lum has worked for GIRC&D since 2002 and is a highly experienced grant administrator. Her role includes managing incoming grant payments, recording and preparing the minutes for GIRC&D board meetings, and maintaining files, records and other materials of the council such as the Area Plan, Annual Work Plan and Operating Budget. She deals with

purchase orders, invoices and working agreements with partner organizations. Prior to this role, she worked in a variety of support and administrative roles including Hertz, King Kaumuali'i Elementary School (library & computer technician), Ferguson Bookkeeping Service – payroll clerk and Hanalei Bay Resort– accounts receivable. She has a BA in Psychology from the University of Hawaii (Manoa).

*Please find the resumes for these experienced professional conservationists at the end of this application.*

## **2. Facilities**

*The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available, describe plans to secure facilities.*

GIRC&D has a small office on Rice Street, Lihue where administrative work will be carried out.

KFBRP has a small office in Hanapepe that houses core staff and equipment. Due to the compact nature of this office, the new grant in aid project will require additional rental office space, which would be sourced on the West Side of Kaua'i (most likely also in Hanapepe) – this would also be a place where education materials could be shared with the general public through an interpretation display, volunteers and interns could be trained and materials could be stored.

Fieldwork will be carried out in the Alaka'i region of Kaua'i using weather ports (shelters) as a base. These need to be upgraded and this request is included in the Grant in Aid application.

## **VI. Personnel: Project Organization and Staffing**

### **1. Proposed Staffing, Staff Qualifications, Supervision and Training**

The applicant shall describe the proposed staffing pattern and proposed service capacity appropriate for the viability of the request. The applicant shall provide the qualifications and experience of personnel for the request and shall describe its ability to supervise, train and provide administrative direction relative to the request.

#### **GIRC&D**

**Carolyn Lum, Administrator** monitors all grants received from the many funding sources for the projects' GIRC&D umbrellas. She notifies the individual projects when an award is made and returns any needed documents or acknowledgements and thank you letters. Thereafter, she invoices for payment and prepares a deposit submittal when the check is received. **Makena Miyake** is the bookkeeping service who makes deposits and cuts necessary checks for payment or reimbursement. The information is entered in QuickBooks and then a monthly financial statement is prepared by our Accounting Manager, **Sandi Cummings**. The QuickBooks information is compiled at the end of the fiscal year (October 1 to September 30) to our CPA, **Jay Mikaki** who prepares the annual 990. Each project has their own monthly financial statement. The organization is carefully overseen by President **Owen Moe**.

#### **KFBRP**

KFBRP is managed by Dr. Cali Crampton (see section IV.1). She is supported by three key staff members who will be taking part in the GIA project on a match funding basis, namely:

### **Justin Hite, Field Supervisor**

Justin joined KFBRP in February 2015. He graduated from Cornell University with a BS in Ecology and Evolutionary Biology in 2005. He is an incredibly passionate field ornithologist with 18 years' experience in 14 different countries. His studies have run the gamut of field ornithology, from projects requiring mist nets, radio telemetry, audio recording, nest searching, territory mapping, vegetation sampling, bleeding, morphometrics and more. He has also overseen large projects with multiple employees and taught these skills in the field to students from Cornell University. Justin has worked with common and endangered species, built and managed databases, statistically analyzed data and written reports and scientific publications.

### **Tyler Winter, Field Associate**

Tyler has spent most of his life outdoors observing wildlife and natural interactions. He pursued this passion at The Evergreen State College where he received a dual degree in Wildlife Biology and Chemistry, and conducted an Independent study of wintering birds and migration in Mexico's Sonoran desert. Since graduating he has studied fall migration patterns for 5 years working in California and Idaho with Palomarin Bird Observatory and Intermountain Bird Observatory.

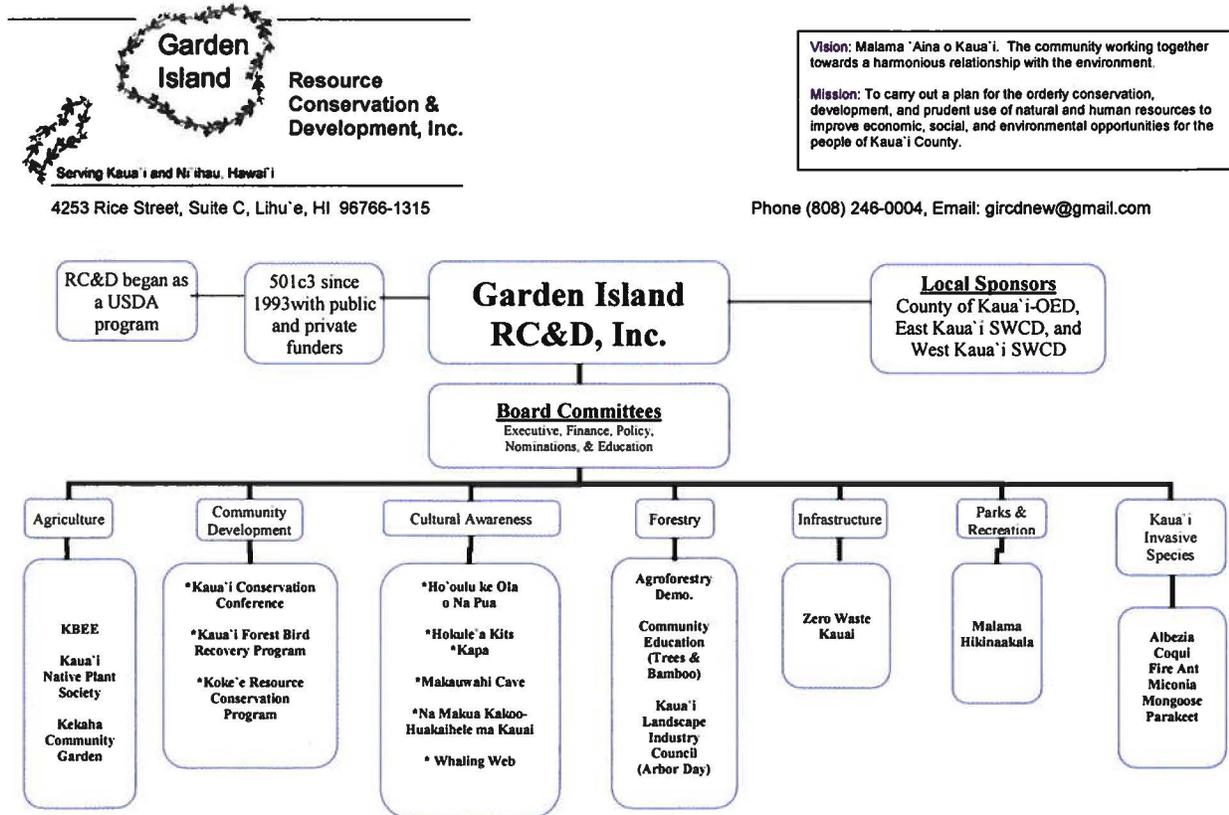
Tyler is both a North American Banding Council certified Raptor and Passerine bander. As a Crew Lead and Camp Manager for Intermountain Bird Observatory he shared his love of the outdoors with school groups ranging from kindergarten to high school and helped coordinate overnight trips for Scouts, families and other small organizations. He instructed participants on proper bird handling techniques and skills and monitored safety of ongoing research projects. His interest in working with endangered species and Island Biogeography lead him to KFBRP in 2017 where he currently works as a Field Associate.

### **Erica Gallerani, GIS and Database Assistant**

Erica Gallerani earned a B.S. in Environmental Science with concentration in Ecology and Natural Resources and a minor in GIS from the University of North Carolina at Chapel Hill in May 2017. Through her undergraduate studies she gained a deeper understanding of management practices for natural resources while developing hard skills in computer science. For her independent undergraduate research she studied self-directed behavior of pygmy marmosets in the remoter field site of Tiputini in Orellana, Ecuador. During that same program she attended ecology and GIS courses on the island of San Cristobal where she solidified her understanding of island biogeography and the struggles of island conservation. In addition she participated in several small research projects involving programs such as ArcGIS and ENVI. She won 3rd place in UNC's Innovative Uses of GIS Competition for developing a tool in Python for ArcGIS to quickly analyze the spatial relationship between socio- economic attributes and green space. After graduation she worked at Everglades National Park as an Aquatic Ecology Intern where she furthered her skills in data management by building a database in Access to ease the process of data entry. Since April 2018 she has been working at KFBRP as the GIS and Database Management Assistant. Her experience has expanded in working with high resolution remotely sensed imagery, PostgreSQL databases, outreach and education, grant writing, and more.

## 2. Organization Chart

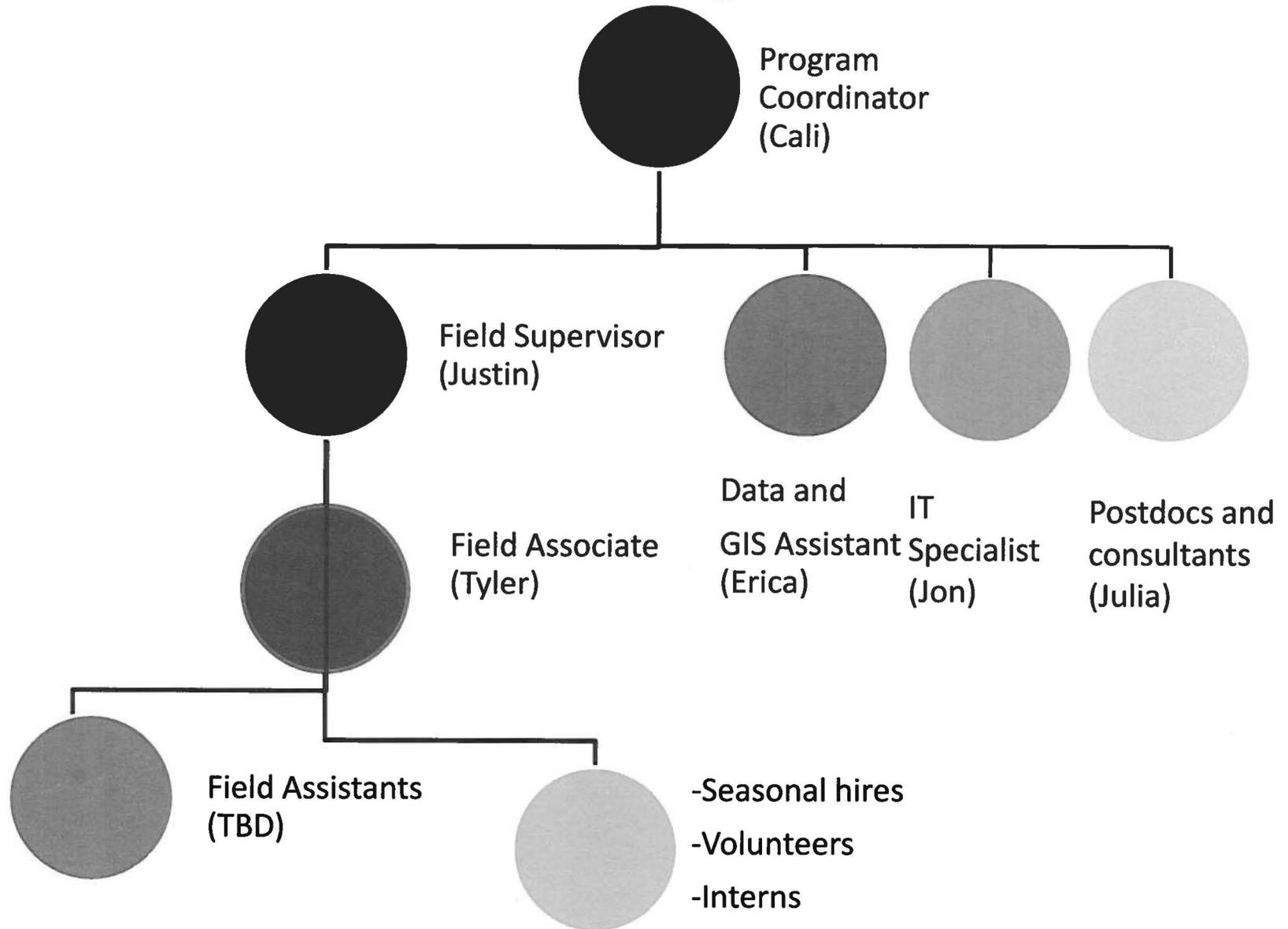
The applicant shall illustrate the position of each staff and line of responsibility/supervision. If the request is part of a large, multi-purpose organization, include an organization chart that illustrates the placement of this request.



NAME	TITLE	COMMUNITY AFFILIATION	BUSINESS CONTACTS	HOME CONTACTS
1. Owen S. Moe Industrial Engineer	President TERM 2: 10/18-9/20 Director since 2/95 Director term: 10/18-9/20	Kaua'i Planning & Action Alliance	PO Box 656 Kekaha, HI 96752	PH/FAX: (808) 337-1585 <a href="mailto:osmoe@hawaiiantel.net">osmoe@hawaiiantel.net</a>
2. Gilbert Peter Kea Attorney	Vice President TERM 2: 10/18-9/20 Director since 6/99 Director term: 10/17-9/19	Kaua'i Planning & Action Alliance Royal Order of Kamehameha	PO Box 1224 Lihue HI 96766	<a href="mailto:gpkea@yahoo.com">gpkea@yahoo.com</a>
3. Gary Ueunten Environmental Health Specialist	Secretary TERM 2: 10/18-9/20 Director APPOINTED Director since 6/00	SPONSOR: West Kaua'i Soil & Water Conservation District (SWCD)	State of Hawai'i - Dept of Health 3040 'Umi Street Lihue HI 96766 Ph/Fx: (808) 241-3322	<a href="mailto:gueunten@gmail.com">gueunten@gmail.com</a>
4. Edward J. Kawamura Small-Business Owner	Treasurer TERM 2: 10/18-9/20 Director APPOINTED Director since 10/93	SPONSOR: East Kaua'i Soil & Water Conservation District (SWCD)	M. Kawamura Enterprises Lihue, HI 96766 Ph/Fx: (808) 245-3524/245-5126	5811 Koali Street Kapa'a, HI 96746 <a href="mailto:eddie@kawamurafarm.com">eddie@kawamurafarm.com</a>
5. TBA - Rep for OED Economic Development	tba	SPONSOR: County of Kauai	Office of Economic Development 4444 Rice Street, Suite 200 Lihue, HI 96766 Ph/Fx: (808) 241-4949/241-4946	<a href="#">tba</a>
6. Bill Cowern Tree Farmer	Director At-Large Member TERM: 10/17-9/19 Director since 92-96, 2002	Forestry Committee Hawaii Forest Industry Association Board Member	CELL: 639-9190	4896 E Kua Road Lawai HI 96765 Ph/Fx: (808)332-8570/332-932 <a href="mailto:treefarm@halekua.com">treefarm@halekua.com</a>

NAME	TITLE	COMMUNITY AFFILIATION	BUSINESS ADDRESS/PHONE/FAX	HOME ADDRESS/PHONE/FAX
7. Sabra Kauka Cultural Awareness Resource Instructor	Director At-Large Member TERM: 10/17-9/19 Director since 9/93	Ho'oulu Ke Ola o Na Pua - Kaua'i Hawaiian Studies Kumu (teacher)	CELL: 652-1978	PO Box 3870 Lihue, HI 96766 Ph/Fx: (808) 246-8899 <a href="mailto:Sabrakauka@icloud.com">Sabrakauka@icloud.com</a>
8. C.W (Bill) Spitz	Director At-Large Member TERM: 10/17-9/19 Director since 10/05	Kauai County Farm Bureau	CELL: (808) 245-2381	<a href="mailto:cws31944@gmail.com">cws31944@gmail.com</a>
9. Savannah Katulski Assistant County Extension Agent	Director At-Large Member TERM: 10/18-9/20 Director since 12/18	Livestock & Range Programs University of Hawaii Cooperative Extension Service	Kauai Extension Office 3060 Eiwa St., Rm 210 Lihue, HI 96766 Phone/Fax: (808) 274-3477	<a href="mailto:katulski@hawaii.edu">katulski@hawaii.edu</a>
10. Tiffani Keanini Assistant County Extension Agent	Director At-Large Member TERM: 10/18-9/20 Director since 12/18	Kauai Invasive Species Committee	Kauai Invasive Species Committee 7370 Kuamoo Rd #K Kapaa HI 96746	<a href="mailto:tkeanini@hawaii.edu">tkeanini@hawaii.edu</a>
Carolyn Lum	Administrative Asst. since 8/02	<b>Garden Island RC&amp;D, Inc</b> <b>Website: <a href="http://www.gircd.org">www.gircd.org</a></b>	<b>(808) 246-0004</b> <b>fax(808) 632-0119</b>	<a href="mailto:gircdnew@gmail.com">gircdnew@gmail.com</a>
<b>Resource People</b>				
Travis Thomason		USDA-NRCS: State Conservationist Director Pacific Islands Area	300 Ala Moana Blvd. 4-118 Honolulu HI 96850	HNL Office: 1-808-541-2600 808-600-2969
Robert Ishikawa Jenna Dunn Karen Uyesonno	Farm Service Agency NRCS Rural Development		4334 Rice Street Lihue, HI 96766 (808) 245-9014 x101,x104	<a href="mailto:First.Law@hi.usda.gov">First.Law@hi.usda.gov</a>
Ed Nakaya	Kauai Island Utilities Cooperative (KIUC)		4463 Pahee St Lihue HI 96766 (808) 246-8275	<a href="mailto:enakaya@kiuc.coop">enakaya@kiuc.coop</a>

# KFBRP Org Chart



### 3. Compensation

The applicant shall provide an annual salary range paid by the applicant to the three highest paid officers, directors, or employees of the organization by position title, not employee name.

#### GIRC&D

Administrator: \$19/hr. with no health insurance, part time  
All other GIRC&D personnel provide their services and experience on a voluntary basis.

### VII. Other

#### 1. Litigation

*The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgement. If applicable, please explain.*

n/a

#### 2. Licensure or Accreditation

*The applicant shall specify any special qualifications, including but not limited to licensure or accreditation that the applicant possesses relevant to this request.*

Bird Banding Permit – Dr. Crampton. Permit available on request.

#### 3. Private Educational Institutions

*The applicant shall specify whether the grant will be used to support or benefit a sectarian or non-sectarian private educational institution. Please see [Article X, Section 1, of the State Constitution](#) for the relevance of this question.*

N/A

#### 4. Future Sustainability Plan

*The applicant shall provide a plan for sustaining after fiscal year 2019-20 the activity funded by the grant if the grant of this application is:*

- (a) Received by the applicant for fiscal year 2019-20, but*
- (b) Not received by the applicant thereafter.*

Receiving two years of Grant in Aid funding would be extremely beneficial. However, if a GIA is not forthcoming in year two, funding from DOFAW-DLNR and the US Fish and Wildlife Service will continue to be used for core work as the organization seeks additional grants to support the essential conservation work that they do.

**CVs**

**LISA H. CRAMPTON ("Cali")**  
 Kauai Forest Bird Recovery Project,  
 PO Box 27, Hanapepe, HI 96716  
 crampton@hawaii.edu

**EDUCATION**

- Ph.D. in Ecology, Evolution and Conservation Biology**, University of Nevada Reno, 2004  
 Dissertation title: *Ecological determinants of phainopepla abundance and breeding success in the northeastern Mojave Desert*; Advisers: Drs M Peacock and WS Longland
- Graduate course work in Ecology, Evolution and Behavior**, Boston University, 1995-98
- M.Sc. in Ecology**, University of Calgary, Alberta, 1995  
 Thesis title: *Effects of forest age and logging on bats*; Adviser: Dr R Barclay
- B.Sc. in Biology (Honors)**, University of Victoria, British Columbia, 1992

**PROFESSIONAL EXPERIENCE**

- Affiliate Faculty Member, University of Hawaii Manoa** May 2016-present  
 Serves as co-advisor on Ph.D. student committees in Ecology, Evolution and Conservation Biology.
- Coordinator, Kauai Forest Bird Recovery Project, Hawaii Division of Forestry and Wildlife and Pacific Cooperative Studies Unit** April 2010-present  
 Supervises the project. Plans, directs and performs all aspects of research on behavior, demography, population ecology, and restoration of Kauai's endangered forest birds. Collaborates with partners to plan and implement management activities. Organizes and maintains project databases. Analyzes data and prepares reports and scientific publications. Recruits and supervises staff, contractors, interns, and volunteers. Develops and manages project budgets. Writes grant proposals and fundraises.
- Affiliate Faculty Member, Colorado State University** Sept 2010-present  
 Serves as co-advisor on M.S. student committees.
- Wildlife Biologist, Hawaii Division of Forestry and Wildlife** Sept-Dec 2012  
 Completed all of the Division's annual reports for federal funding under Section 6 of the ESA and State Wildlife Grant programs, and for private sources of funding, including reconciling estimated and actual expenditures of federal and other dollars. Wrote grant proposals and applies for amendments to existing federal grants. Chaired working group meetings and served as liaison to Division partners. Submitted applications for federal permits for wildlife-related activities. (Temporary Assignment).
- Post-doctoral Fellow, US Forest Service and University of Nevada Reno** Jan 2008-March 2010  
 Conducted quantitative research on the impact of motorized and non-motorized recreation in forests in the Sierra Nevada on bird and mammal communities, using GIS and SAS. Managed databases. Produced technical reports and scientific manuscripts.
- Post-doctoral Fellow, USGS Hawaii Cooperative Studies Unit** Oct 2006-Aug 2007  
 Conducted quantitative research on the population dynamics, behavior and habitat relations of the endangered Laysan Duck, using GIS, SAS and Program NOREMARK. Evaluated population data and field methodologies to assess and enhance statistical rigor. Managed databases. Produced technical reports and scientific manuscripts.
- Post-doctoral Fellow, University of Nevada Reno** Jan 2004-Nov 2006  
 Designed a conservation management strategy for mesquite and acacia woodlands in southern Nevada and an adaptive management research agenda for ecosystems in the Lake Tahoe Basin. Modeled Phainopepla (*Phainopepla nitens*, Cl. Aves) population trends under different habitat fragmentation scenarios. Investigated the importance of desert springs for breeding birds.
- Assistant Editor, Great Basin Bird Observatory** June-Aug 2005  
 Edited and fact-checked species accounts in the Atlas of the Breeding Birds of Nevada.
- Ph.D. Research, University of Nevada Reno** Sep 2000-Dec 2004

Investigated Phainopepla population dynamics, density, breeding success, and habitat selection in the Mojave Desert. Analytical tools included Programs DISTANCE, PRESENCE, MARK, SAS and GIS; field techniques include distance surveys, nest monitoring, mist netting/color banding, brachial bleeding and vegetation surveys. Supervised 4 field technicians and several volunteers.

**Graduate Research Assistant, University of Nevada Reno** Aug 1998-Aug 2000

Studied the effects of seed hoarding by mammals on plant dispersal and regeneration in the Great Basin and Sierra Nevada. Activities included rodent trapping and radio telemetry, and seed hoarding experiments.

**Principal Researcher, Timberland Consultants/British Columbia Ministry of Lands, Environment and Parks** July-Sept 1997

Designed and conducted study to assess habitat preferences of bats in northern British Columbia forests. Used echolocation monitoring, mist netting and vegetation sampling techniques (fixed-term contract).

**Technical Expert, ESSA Technologies/B.C. Resource Inventory Committee** Nov 1996-June 1997

Prepared government-mandated manual and course to teach and standardize methods used by field technicians to monitor and research bat abundance and habitat use (fixed-term contract).

**Principal Researcher, B.C. Conservation Foundation/B.C. Ministry of Lands, Environment and Parks** May-Dec 1996

Designed and conducted study to assess habitat preferences of bats in remote coastal B.C. Used Anabats, mist netting and vegetation sampling techniques. Directed 3 field technicians (fixed-term contract).

**M.Sc. Research, University of Calgary** May 1993-Nov 1995

Determined the foraging and roosting habitat preferences of bats in northern Alberta, using mist netting, echolocation monitoring, radio telemetry and vegetation sampling in the field, and SAS for analyses. Supervised 3 field technicians and several volunteers.

#### **GRANTS, FUNDRAISING, AWARDS & SCHOLARSHIPS**

- National Fish and Wildlife Foundation (\$70, 000), 2018
- Po'ipu Rotary Club (\$1,000), 2018
- Competitive State Wildlife Grant (\$144, 247), 2017
- Po'ipu Rotary Club (\$1,300), 2017
- National Fish and Wildlife Foundation (\$130, 000), 2017
- Competitive State Wildlife Grant (\$136, 085), 2016
- Competitive Section 6 Funds Grant: Using high-resolution imagery to identify, conserve and manage habitat for Kauai's endangered birds (\$86, 000), 2016
- Competitive Section 6 Funds Grant: Ground-truthing model predictions to refine distribution maps and population estimates of endangered forest bird species (\$82, 0000), 2016
- US FWS Discretionary Fund Grant (\$150, 000), 2016
- National Fish and Wildlife Foundation (\$70, 000), 2016
- HTA Charity Walk (\$10, 000), 2016
- Po'ipu Rotary Club (\$1,000), 2016
- Birds, Not Rats! Crowdfunding Campaign (\$35, 000 to date), 2014-2015
- The Islands Society, Local Female Leader, November 2015
- American Bird Conservancy Special Grant (\$30, 000), 2015
- National Fish and Wildlife Foundation (\$40, 000), 2015
- HTA Charity Walk (\$5, 350), 2015
- Po'ipu Rotary Club (\$500), 2015
- US FWS Discretionary Fund Grant (\$135, 000), 2015
- US FWS Discretionary Fund Grant (\$65, 000), 2014
- Pioneer Community Development Fund Award (\$2,000), 2014
- Po'ipu Rotary Club (\$500), 2014

- Mohammed Bin Zayed Species Conservation Fund Award (\$18, 500), 2013
- American Bird Conservancy Special Grant (\$15, 000), 2013
- American Bird Conservancy Special Grant (\$20, 000), 2012
- Pioneer Community Development Fund Award (\$7,000), 2012
- Disney Wildlife Conservation Foundation Grant (\$25, 000 annually), 2011-14
- American Ornithologists' Union Marcia Brady Tucker Travel Award (\$350), 2004
- Sigma Xi Grant-In-Aid of Research (\$450), 2003
- Scholarship for Promising Entering Graduate Student, University of Nevada Reno (\$12, 000), 1998
- Teaching Fellowship, Boston University (\$20, 000/yr), 1995-98
- Award for Excellent Student Presentation, International Symposium on Bat Research, 1995
- Province of Alberta Graduate Student Fellowship (\$9, 000), 1994-95
- Best Student Presentation Award, The Wildlife Society (Alberta Chapter), 1994
- President's Scholarship, University of Victoria (\$2, 500), 1989

### **PUBLICATIONS**

#### ***Peer-reviewed articles***

- Fantle-Lepczyk, J. A. Taylor, D. Duffy, LH Crampton, and S. Conant. 2018. Using population viability analysis to evaluate management activities for an endangered Hawaiian endemic, the Puaiohi (*Myadestes palmeri*). *PLOS One* 13(6): e0198952. <https://doi.org/10.1371/journal.pone.0198952>
- Crampton, LH, KW Brinck, KE Pias, BAP Heindl, T Savre, JS Diegmann, and EH Paxton. 2017. Linking occupancy surveys with habitat characteristics to estimate abundance and distribution in an endangered cryptic bird. *Biodiversity and Conservation* 26: 1525-1539. <https://doi.org/10.1007/s10531-017-1313-0>
- Paxton, E, R. Camp, M Gorresen, LH Crampton, DL Leonard, EA VanderWerf. 2016. Collapsing avian community on a Hawaiian island. *Science Advances* 2: e1600029
- Bonnette, KL, LH Crampton, KE Pias, AH Elzinga, and BA Heindl. 2016. Non-breeding season movements of 'Akikiki and other endangered endemic forest birds on Kauai'. *'Elepaio* 76:25-28.
- Fantle-Lepczyk, J. A. Taylor, D. Duffy, LH Crampton, and S. Conant. 2016. Weather influences on nest success of the endangered Puaiohi (*Myadestes palmeri*). *Wilson Journal of Ornithology* 128: 43-55.
- Behnke, LAH, L Pejchar, and LH Crampton. 2016. Occupancy and habitat use of the endangered Akikiki and Akekee on Kauai Island, Hawaii. *Condor* 18:148-158.
- Hammond, RL, LH Crampton, LH, and JT Foster. 2016. Nesting success of native and introduced forest birds on the island of Kauai. *Journal of Avian Biology* 47: 252-262.
- Glad, A, and LH Crampton. 2015. Local prevalence and transmission of avian malaria in the Alakai Plateau of Kauai, Hawaii, U.S.A. *Journal of Vector Ecology* 40:221-229.
- Hammond, RL, LH Crampton, LH, and JT Foster. 2015. Breeding biology of two endangered forest birds on the island of Kauai. *Condor* 117: 31-40.
- Atkinson, CT, RB Utzurrum, DA LaPointe, RJ Camp, LH Crampton, JT Foster, and TW Giambelluca 2014. Changing Climate and the Altitudinal Range of Avian Malaria in the Hawaiian Islands - an Ongoing Conservation Crisis on the Island of Kauai. *Global Change Biology* 20: 2426-2436.
- Vanderwerf, EA, LH Crampton, PK Roberts, JS Diegmann, and DL Leonard. 2014. Survival estimates of wild and captive-released Puaiohi, an endangered Hawaiian thrush. *Condor* 116: 609-618.
- Reynolds, MH, JS Hatfield, LP Laniawe, MS Vekasy, JL Klavitter, P Berkowitz, LH Crampton, and JR Walters. 2012. Influence of space use on fitness and the reintroduction success of the Laysan teal. *Animal Conservation* 15: 305-317.
- Crampton, LH, WS Longland, DD Murphy, and JS Sedinger. 2011. Food abundance determines the distribution density of a specialist frugivore across seasons. *Oikos* 120: 65-76.
- Crampton, LH and JS Sedinger. 2011. *Congruent habitat selection across multiple spatial scales: Phainopeplas choose breeding habitat based on food availability and vegetation structure.* *Condor* 113: 1-14.

- Reynolds, MH, LH Crampton, MS Vekasy, JH Breeden, and E Tweed. 2010. Circadian habitat use, home-range, and behaviour of Laysan Teal *Anas laysanensis*. **Wildfowl** 60: 106-123.
- Reynolds, MH, LH Crampton, and MS Vekasy. 2007. Laysan Teal *Anas laysanensis* nesting phenology and site characteristics on Laysan Island. **Wildfowl** 57: 54-67.
- Richardson, TW, LH Crampton, and DD Murphy. 2007. Influence of springs on breeding bird communities in the Spring Mountains, Nevada. **Great Basin Birds** 9: 21-34.
- Crampton, LH and DD Murphy. 2006. Ecology and conservation of Phainopeplas in southern Nevada: the challenges in managing a moving target. **Great Basin Birds** 8: 21-31.
- Crampton, LH, HYT Liang and L Greene. 2004. First record of predation by coachwhip snakes (*Mastocophis flagellum*) on phainopepla (*Phainopepla nitens*) nests. **Great Basin Birds** 7: 34-39
- Campbell, SP, A Clark, LH Crampton, AD Guerry, L Hatch, PR Hossieni, JJ Lawler and RJ O'Connor. 2002. An assessment of monitoring efforts in endangered species recovery plans. **Ecological Applications** 12: 674-681.
- Gregory, PT, LH Crampton and KM Skebo. 1999. Conflicts and interactions among reproduction, thermoregulation, and feeding in viviparous reptiles: are gravid snakes anorexic? **Journal of Zoology** 248: 231-241.
- Crampton, LH and RMR Barclay. 1998. Bats and forests: roosting- and foraging-habitat selection in aspen mixedwood and potential effects of forest harvesting. **Conservation Biology** 12: 1347-58.
- Barclay, RMR, MC Kalcounis, LH Crampton, C Stefan, MJ Vonhof, L Wilkinson and RM Brigham. 1996. Can external radio transmitters be used to assess body temperature and use of torpor in bats? **Journal of Mammalogy** 77: 1102-1106.

#### ***Manuscripts in revision***

- Kaushik, M, L. Pejchar, and LH Crampton. *In revision*. Potential disruption of seed dispersal in the absence of a native Kauai thrush. **PLOS**.

#### ***Book chapters***

- Switzer, R. A. Lieberman, J. Nelson and L.H. Crampton. 2013. Augmentation of the Puaiohi population through captive propagation and release on the Alakai Plateau, Kauai, Hawaii, USA. Reintroduction Specialist Group Book, IUCN.

#### ***Technical reports***

- Paxton, EH, J Burgett, E McDonald-Fadden, E Bean, CT Atkinson, D Ball, C Cole, LH Crampton, J Kraus, DA LaPointe, L Mehrhoff, MD Samuel, DC Brewer, SJ Converse, and S Morey. 2012. Keeping Hawai'i's Forest Birds One Step Ahead of Avian Diseases in a Warming World: a focus on Hakalau Forest National Wildlife Refuge. **A case study from the Structured Decision Making Workshop, Volcano HI**. National Conservation Training Center. Sheperdstown, WV.
- Manley PN, DD Murphy, S Bigelow, S Chandra, LH Crampton. 2010. Ecology and Biodiversity. *in* ZP Hymanson and MW Collopy, eds. **Comprehensive Science Plan for the Lake Tahoe Basin: Conceptual Framework and Research Strategies**. USDA Forest Service General Technical Report PSW-GTR-226. Albany, CA.
- Crampton, LH, J Krueger, and DD Murphy. 2006. Mesquite and Acacia Woodlands Conservation Management Strategy. Clark County Multiple Species Habitat Conservation Plan, Las Vegas, NV
- Crampton, LH. 2003. Ecological determinants of phainopepla abundance and breeding success in the northeastern Mojave Desert. Final report for the Clark County Multiple Species Habitat Conservation Plan, Las Vegas, NV.
- Crampton, LH, KG Poole, and C Shurgot. 1997. Bat inventory of the Prophet River Territory in Northeastern British Columbia. Ministry of Environment, Lands and Parks, Fort St. John, BC.
- van den Driessche, R, MH Mather, LH Crampton, and TA Chatwin. 1997. An inventory of bats in Clayoquot Sound, Vancouver Island, British Columbia. Ministry of Environment, Lands and Parks, Nanaimo, BC. FRBC Project Number PA-96-488-IN.

MacCallum, ME, LH Crampton, C Murray, and M Promislow. 1996. Bat resource inventory draft instructor's guide and participant's manual. Resource Inventory Training Secretariat. Ministry of Environment, Victoria, BC.

Crampton, LH and RMR Barclay. 1995. Relationships between stand age, stand structure and bats in aspen mixedwood forests in Alberta. In JB Stelfox, ed. **Relationships between stand age, stand structure, and biodiversity in aspen mixedwood forests in Alberta**. Jointly published by Alberta Environmental Centre (AEC V95-R1), Vegreville, Alberta and Canadian Forest Service (Project No. 0001A), Edmonton, Alberta.

### **Popular articles**

Crampton, LH. 2008. *Phainopepla nitens*. **Picoides: Bulletin of the Society of Canadian Ornithologists**, March 2008. Volume 21(1): 15.

Crampton, LH. *Phainopepla: Abundance and Breeding Success in Southern Nevada*. **Rock Wren**, March/April 2002, Volume 26, No. 2 (for *Las Vegas Audubon* chapter).

### **PRESENTATIONS**

#### **Invited talks**

Crampton, LH. *Kauai's Forest Birds: Research and Recovery*. *Hawaii Conservation Alliance Talk Story*, Honolulu, October 2016.

Crampton, LH. *Kauai's Forest Birds: How research has informed management and conservation*. Ecology, Evolution and Conservation Biology Programs at University of Hawaii Manoa (April 2016) and University of Nevada Reno, September 2016.

Crampton, LH. *In Situ and Ex Situ Strategies to Prevent Immediate Extinction of Kauai's Critically Endangered Songbirds*. *International Union for the Conservation of Nature*, Honolulu, September 2016.

Crampton, LH. *Evolution and Conservation of Kauai's Forest Birds*. *Kauai Community College*, May 2015.

Crampton, LH. *Rise, Fall, and Recovery of Biodiversity on Kauai*. *Hawaii Conservation Alliance Talk Story*, Honolulu, October 2014, and *Hanapepe Library*, January 2015.

Crampton, LH. *Hawaii's Forest Birds: Rise and Fall of Biodiversity*. *National Tropical Botanical Garden*, Kalaeo HI, May 2014

Crampton, LH. *Threats to bird communities in the Mojave and Sonoran Deserts*. *Partners in Flight California All-bird Workshop*, Sacramento CA, November 2004.

Crampton, LH. *Phainopepla habitat selection and reproductive success in the northeastern Mojave desert*. *Seminar Series at Hastings Reservation*, May 2004.

Crampton, LH. *Phainopepla nest site selection and breeding success in the northeastern Mojave desert*. *Seminar Series at PRBO Conservation Science*, May 2004.

Crampton, LH, CR Tracy and DD Murphy. *Factors influencing phainopepla abundance and breeding success in the northeastern Mojave*. *California Partners In Flight Desert Plan Development Meeting*, Yuma AZ, November 2003.

Crampton, LH. *Habitat requirements of phainopeplas on the Muddy River, Clark County NV*. *The Nature Conservancy Muddy River Planning Workshop*, Las Vegas NV, July 2002.

Crampton, LH and RMR Barclay. *Bats and forests: roosting- and foraging-habitat selection in aspen mixedwood and potential effects of forest harvesting*. *Four Corners Regional Symposium on Bats*, Durango CO, January 1996.

Crampton, LH and RMR Barclay. *Relationships between stand age, stand structure, forest fragmentation and bats in aspen mixedwood forests in Alberta*. *Symposium on Bats in Forests*, Victoria BC, October 1995.

#### **Scientific presentations (oral unless otherwise indicated)**

Crampton, LH, JM Hite, B Masuda, M Clark, JP Vetter. *Securing the Future: How we initiated conservation breeding populations of two critically endangered honeycreepers*. *Hawaii Conservation Conference*, Honolulu, July 2017.

Kaushik, M, L. Pejchar, and LH Crampton. *Seed-dispersal by native and non-native birds on the Island of Kauai, Hawaii*. *Association of Tropical Biology*, Honolulu, March 2016.

- Crampton, LH, EH Paxton, LA Behnke, JP Vetter, M Laut, L Pejchar, and S Morrey. Formalized conservation strategies to arrest and reverse rapid declines and range contractions of two endangered endemic passerines on Kauai, Hawaii. International Congress for Conservation Biology, Montpellier, France, August 2015.
- Fantle-Lepczyk, J, A Taylor, D Duffy, LH Crampton, and S Conant. Evaluation of potential Puaiohi management activities via population viability analysis. International Congress for Conservation Biology, Montpellier, France, August 2015.
- Bonnette, KL, LH Crampton, AH Elzinga, BA Heindl, and KE Pias. Non-breeding season movements of Akikiki and other endangered endemic forest birds on Kauai. Hawaii Conservation Conference, Hilo HI, August 2015 (*poster*).
- Pias, KE and Crampton, LH. Rodent Trapping to Protect Kaua'i's Forest Birds: Results of an Experiment to Assess Efficacy of Goodnature™ A24's. Hawaii Conservation Conference, Hilo HI, August 2015.
- Crampton, LH, KW Brink, E Paxton, BAH Heindl, E Vanderwerf, DL Leonard, JS Diegmann, C Atkinson. Occupancy and Survival of the Critically Endangered, Highly Cryptic, Single Island Endemic, the Puaiohi. Island Biology Conference, Honolulu HI. July 2014.
- Crampton, LH, KW Brink, RJ Camp, M Gorresen, E Paxton, BAH Heindl. Occupancy and Survival of the Critically Endangered, Highly Cryptic, Single Island Endemic, the Puaiohi. Hawaii Conservation Conference, Honolulu HI. July 2014.
- Pias, KE, LH Crampton, E Paxton, R. Camp. 2014. Changes in Kaua'i's Forest Bird Community. Island Biology Conference, Honolulu, HI, July 2014.
- Paxton, E, R. Camp, M Gorresen, LH Crampton, DL Leonard, EA VanderWerf. Rapid Declines in Kauai's Forest Birds. Island Biology Conference, Honolulu, HI, July 2014.
- Crampton, LH, EA Vanderwerf, JS Diegmann, PK Roberts, DL Leonard. Survival estimates of wild & captive-released Puaiohi, an endangered Hawaiian thrush. Hawaii Conservation Conference, Honolulu HI. July 2013.
- Hammond, RL, J Foster, and LH Crampton. Solving the mystery of empty forest bird nests. Hawaii Conservation Conference, Honolulu HI. July 2013.
- Elzinga, AH, BA Heindl, and LH Crampton. Developing dependable monitoring strategies for nest boxes to aid in the recovery of an endangered endemic species. Hawaii Conservation Conference, Honolulu HI. July 2013 (Poster).
- Ozaki, N. CR Alevizos, LH Crampton, K Cassel, K Pias, and S Montgomery. Restoring Hawaiian Endangered Bird Habitat: Investigating the effect of invasive plant removal on native forest birds on Kaua'i. Hawaii Conservation Conference, Honolulu HI. July 2013 (Poster).
- Crampton, LH, K Brink, RJ Camp, M Gorresen, and B Heindl. Occupancy surveys for a critically endangered, highly cryptic, single island endemic, the Puaiohi. North American Ornithological Conference, Vancouver BC. August 2012.
- Heindl, B, LH Crampton, LA Behnke, and E Vanderwerf. Nest site limitation in the Puaiohi or Small Kaua'i Thrush (*Myadestes palmeri*): using nest boxes to expand the global range of an endangered species. North American Ornithological Conference, Vancouver BC. August 2012.
- Hammond, RL, JT Foster, and LH Crampton. Effects of Rodent Predation on Nesting Success of Forest Birds on Kaua'i. North American Ornithological Conference, Vancouver BC. August 2012 (Poster).
- Solomon, LE, LH Crampton, RL Hammond, and PK Roberts. Territory selection by Puaiohi: Influence of food abundance, nest sites, and forest composition and structure. North American Ornithological Conference, Vancouver BC. August 2012 (Poster).
- Behnke, LA, L Pejchar, and LH Crampton. Characterizing Space Use and Estimating Home Range Sizes of 'Akikiki, an Elusive Endangered Honeycreeper. Hawaii Conservation Conference, Honolulu HI. August 2012.
- Crampton, LH, PK Roberts, LE Solomon, RL Hammond, LA Behnke, BA Heindl. Habitat selection by endangered Puaiohi: Influence of food abundance, nest sites, and forest composition and structure. The Wildlife Society Conference, Waikoloa HI. November 2011.
- Paxton, E., CT. Atkinson, D Ball, J Burgett, C Cole, LH Crampton, J Kraus, DA LaPointe, L Mehrhoff, MD Samuel. Keeping Hawaii's Forest Birds One Step Ahead of Diseases in a Warming World. The Wildlife Society Conference, Waikoloa HI. November 2011.

- Solomon, LE, BA Heindl, LH Crampton, LA Behnke. 2011. Forest Bird Population and Vegetation Structure: Baseline Assessment Prior to Installation of the Alaka'i Protective Fence. The Wildlife Society Conference, Waikoloa HI. November 2011.
- Crampton, LH, PK Roberts, LA Behnke. *Starting small: population size and distribution of an endangered Kauai endemic, the Puaiohi. The Wildlife Society Conference, Snowbird UT. October 2010.*
- Crampton, LH, PK Roberts, LA Behnke. *Starting small: population size and distribution of an endangered Kauai endemic, the Puaiohi. Hawaii Conservation Conference, Honolulu HI. August 2010.*
- Crampton, LH, WS Longland, DD Murphy, MM Peacock, and JS Sedinger. *Food abundance determines the distribution density of a specialist frugivore across seasons. The Wildlife Society, Monterey CA, September 2009.*
- Crampton, LH, PN Manley, and LA Campbell. *Relative influence of off-highway vehicle use and roads on avian abundance and richness in the Sierra Nevada, California. The Wildlife Society, Miami FL, November 2008.*
- Manley, PN, LA Campbell, LH Crampton. *Comparative human and ecological influences on small mammal communities in off-highway vehicle use areas in the Sierra Nevada, California. The Wildlife Society, Miami FL, November 2008.*
- Campbell, LA, PN Manley, LH Crampton. *Influence of off-highway vehicle use on avian and mammalian predators in the Sierra Nevada, California. The Wildlife Society, Miami FL, November 2008.*
- Crampton LH, JH Breeden, MS Vekasy, and E Tweed, and MH Reynolds. *Diurnal, nocturnal, and crepuscular space use by Laysan Teal (*Anas laysanensis*) on Laysan Island. Animal Behavior Society, Snowbird UT, August 2008.*
- Crampton, LH, DDMurphy and MM Peacock. *Use of autoecological data to inform conservation and management of mesquite and acacia woodlands in the Mojave Desert. Society for Conservation Biology, San Jose CA, June 2006 (Poster).*
- Crampton, LH and HYT Liang. *Habitat selection by Phainopeplas at multiple temporal and spatial scales: the variable influence of food resources. American Ornithologists' Union, Santa Barbara CA, August 2005.*
- Crampton, LH, JS Sedinger, WS Longland, MM Peacock and MP Herzog. *Reproductive success of Phainopeplas in the northeastern Mojave Desert: the roles of food resources, habitat structure and patch size. American Ornithologists' Union and Society of Canadian Ornithologists, Quebec, Canada, August 2004.*
- Crampton, LH. *Phainopepla abundance and breeding success in southern Nevada. Western Field Ornithologists, Reno NV, September 2001.*
- Tracy, CR, JC Tull, T Thayer, LH Crampton, S Merideth, S Blomquist, E Peacock, DD Murphy, J McKnight, K Field and J Wright. *Efficacy of large-scale questionnaire approaches to understanding recovery plans. Society for Conservation Biology, Hilo HI, July 2001*
- Crampton, LH. *Effects of forest fragmentation on bat abundance and foraging activity. International Symposium on Bat Research, Boston MA, July 1995 (won excellent student presentation award).*
- Crampton, LH and RMR Barclay. *Foraging activity and roost-site selection by bats in forest stands of different ages. Ecological Society of America, Park City UT, July 1995.*
- Crampton, LH and RMR Barclay. *Roosting- and foraging-habitat selection by bats in forest stands of different ages. Animal Behavior Society, Lincoln NE, June 1995.*
- Crampton, LH. *Influence of stand age on bat abundance and activity in aspen mixedwood forests. The Wildlife Society (Alberta Chapter), Calgary, Canada, March 1994 (won best student presentation award).*

**PRESS ON RESEARCH AND CONSERVATION ACTIVITIES**

**Warming Climate Is Quieting Kauai's Colorful Forest Birds.** National Public Radio, July 24, 2017.

<http://www.npr.org/2017/07/24/539087977/warming-climate-is-quieting-kauais-colorful-forest-birds>

**Extinction looms for native bird species on the Hawaiian island of Kauai.** Los Angeles Times, September 16, 2016. <http://www.latimes.com/science/sciencenow/la-sci-sn-hawaii-native-birds-20160907-snap-story.html>

**Hawaii Is Eyeing GMO Mosquitoes To Save Birds From Extinction.** Huffington Post, May 25, 2016. [http://www.huffingtonpost.com/entry/gmo-mosquitoes-hawaii-birds\\_us\\_5743f9b3e4b045cc9a71d422](http://www.huffingtonpost.com/entry/gmo-mosquitoes-hawaii-birds_us_5743f9b3e4b045cc9a71d422)

**Crampton named 'Local Female Leader': Honor comes for work conserving endangered birds on Kauai.** The Garden Island, October 9, 2015. [http://thegardenisland.com/news/local/crampton-named-local-female-leader/article\\_7c85dcb6-f525-5a8d-bfa8-95374c6d9128.html](http://thegardenisland.com/news/local/crampton-named-local-female-leader/article_7c85dcb6-f525-5a8d-bfa8-95374c6d9128.html)

**Preventing extinction: Project aims to save endangered bird species on Kauai.** The Garden Island. April 16, 2015. [http://thegardenisland.com/news/local/preventing-extinction/article\\_03883aee-e408-11e4-9bc6-f74ac0c81df6.html](http://thegardenisland.com/news/local/preventing-extinction/article_03883aee-e408-11e4-9bc6-f74ac0c81df6.html)

**Endangered Hawaiian Birds Get Second Chance.** VOA news. April 15, 2015. <http://m.voanews.com/a/endangered-hawaiian-birds-/2720538.html>

**Newly hatched endangered Hawaiian birds being closely watched.** KHON2 Honolulu evening news. April 14, 2015. <http://khon2.com/2015/04/14/newly-hatched-endangered-hawaiian-birds-being-closely-watched/>

**For the Birds.** The Garden Island, January 28, 2015. <http://www.midweekkauai.com/kauai-coverstory/kfbrp-kauai-forest-bird-recovery-project/>

**Radio and TV interviews with HPR and KITV Honolulu morning news on Birds, Not Rats!** Campaign, December and January 2015

**Dirty Rats! The Kaua'i Forest Bird Recovery Project is using crowdsourcing to raise funds for rat traps to help protect endangered native birds.** Honolulu Star Advertiser, December 27, 2014. <http://www.staradvertiser.com/s>

**Birds, not Rats.** The Garden Island, December 13, 2014. [http://thegardenisland.com/news/local/birds-not-rats/article\\_fe4bee8a-828d-11e4-a093-13c0393245f1.html](http://thegardenisland.com/news/local/birds-not-rats/article_fe4bee8a-828d-11e4-a093-13c0393245f1.html)

**Oh, rats! Kauai has an uphill battle against invasive rodents.** The Garden Island, July 27, 2014. [http://thegardenisland.com/news/local/oh-rats/article\\_c5bff618-154d-11e4-9613-001a4bcf887a.html?mode=story](http://thegardenisland.com/news/local/oh-rats/article_c5bff618-154d-11e4-9613-001a4bcf887a.html?mode=story)

**Meet Lisa Crampton: Ensuring a future for Kauai forest birds.** The Garden Island, February 11, 2014. [http://thegardenisland.com/news/local/meet-lisa-crampton/article\\_f48a4c2c-92ea-11e3-9b4f-001a4bcf887a.html](http://thegardenisland.com/news/local/meet-lisa-crampton/article_f48a4c2c-92ea-11e3-9b4f-001a4bcf887a.html)

**Designing Safe Nest Boxes For Puaiohi.** Midweek Kauai, April 12, 2012. <http://www.midweekkauai.com/2012/04/designing-safe-nest-boxes-for-puaiohi/>

**Cultural Practitioners, Biologists Celebrate Release of Puaiohi into the Wild.** The Garden Island, February 17, 2012. [http://thegardenisland.com/news/local/cultural-practitioners-biologists-celebrate-release-of-puaiohi-into-the-wild/article\\_50b4980a-5a11-11e1-a852-0019bb2963f4.html#ixzz1tsrAi9zJ](http://thegardenisland.com/news/local/cultural-practitioners-biologists-celebrate-release-of-puaiohi-into-the-wild/article_50b4980a-5a11-11e1-a852-0019bb2963f4.html#ixzz1tsrAi9zJ)

**Disney Funds Koke'e Habitat Research.** Midweek Kauai, Dec 01, 2011. <http://www.midweekkauai.com/2011/12/disney-funds-koke%E2%80%98e-habitat-research/>

**Hawaiian Puaiohi Successfully Hatches in Nest Box.** 2011. Bird Calls 15:18

**Science of Mistletoe,** Discovery Channel: <http://www.exn.ca/dailyplanet/view.asp?date=12/14/2004>

**Phainopepla. What we do...** Clark County Parks, Clark County Cable Television, 2003

**PROFESSIONAL ACTIVITIES****Reviewer**

- PLOS One, *Elepaio*, *Journal of Arid Environments*, *Great Basin Birds*, *Condor*, *American Midland Naturalist*

**Committee service and offices held**

- County of Kauai Feral Cat Ordinance Committee, 2015-2017
- *The Wildlife Society's Aldo Leopold Award Committee, 2015*
- *Chair (2013-2014) and founding member (2011-present), Kauai Conservation Alliance*
- *The Wildlife Society's Cesar Kleberg Award Committee, 2012*
- Clark County, NV Mesquite/Acacia Conservation Plan Technical Advisory Group, 2004-2010
- American Ornithologists' Union Early Professionals' Committee, 2004-2009
- California Partners In Flight Desert Bird Conservation Plan Development Committee, 2003-2005
- The Nature Conservancy/U.S. Fish and Wildlife Service Upper Muddy River Restoration Plan Science Advisory Committee, 2002-2003
- Biology Representative, University of Nevada Reno Graduate Student Association, 1999
- Vice-president, University of Nevada Reno Biology Graduate Student Committee, 1998-99
- Co-founder and co-chair, Boston University Biology Graduate Student Association, 1997-98
- Vice-president, BC Students' Federation, 1991-1992
- Member, Board of Directors, University of Victoria Student Union, 1990-1991

**Co-organizer and co-chair**

- *Symposium on Effectiveness of Goodnature A24 Rat Traps, Hawaii Conservation Conference, Hilo HI, 2015*
- *Symposium on [Navigating Change in Forest Bird Communities: The Rapid Decline of Kauai's Native Avifauna](#), Hawaii Conservation Conference, Honolulu HI, 2014.*
- *Symposium on Species Interactions and Ecosystem Services: How the Loss of Native Species and the Introduction of Exotic Species are Changing Hawaii's Forests. Hawaii Conservation Conference, Honolulu HI, 2011.*

**Teaching/Mentoring**

- Graduate students mentored: Tracy Liang (M.S., University of Las Vegas, 2004), Ruby Hammond (M.S., Northern Arizona University, 2014), Anouk Glad (M.S. Universite de Montpellier, 2014), Lucas Behnke (M.S., Colorado State University, 2014), Jean Fantle-Lepczyk (Ph.D., University of Hawaii Manoa, 2016)
- Teaching Assistant, Davidson Academy, Reno Fall  
2007
- Teaching Assistant, University of Nevada Reno Spring  
2004
- Teaching Fellow, Boston University 1995-98
- Teaching Assistant, University of Calgary 1993-94
  - Laboratory courses: Environmental and Evolutionary Ecology, Introductory Cell and Molecular Biology, Introductory Ecology and Evolution, Principles of Biological Investigation and Human Physiology
  - Tutorials and discussion groups: Algebra, Genetics and Sociobiology

**Memberships**

- Society for Conservation Biology (2003-present); American Ornithologists' Union (2003-present); Society of Canadian Ornithologists (2006-2010); Animal Behavior Society (2008); The Wildlife Society (2009-present)

**OTHER EXPERIENCE****Computer/Analytical**

- *SAS, JMP, Programs PRESENCE, DISTANCE, FRAGSTATS and MARK, GIS (ArcMap/Catalog)*

- *Statistical analyses including general(ized) linear models (ANOVA/multivariate regression), mixed models, discriminate functions analysis and factor analysis, nest survival and population modeling*
- *Microsoft Office (Word, Excel, Access, Power Point)*

***Field and Laboratory***

- *Banding Volunteer, PRBO Conservation Science, August 2001*
- *Molecular Laboratory Technician, Tufts University, June-Aug 1998*
- *Water Quality Technician, Woods Hole Oceanographic Institute, 1995-1996*

***Other***

- *Fluent in Spanish and French*
- *Basic First Aid and CPR (current)*
- *Basic Aviation and External Load certification (current)*
- *Canadian Safety Council ATV and chainsaw certification*
- *PADI Advanced Diver certification*

Carolyn Lum

**Sheri S. Mann  
Curriculum Vitae**

**Home Address:** 5914 Ohe St. Kapa‘a, HI 96746  
**Phone:** 808-729-0714  
**E-mail:** [sherismann@gmail.com](mailto:sherismann@gmail.com)  
**Nationality:** American

**EDUCATION:**

- Master of Science in Forestry Northern Arizona University (NAU) 1999
- Bachelor of Arts in Academic Psychology University of Tennessee 1990

**EXPERIENCE:**

- April 2016 to present - District Manager Division of Forestry & Wildlife Kauai Island
- March 2006 to 2014 - Sole Proprietor Pacific Forestry Consultants
- Jan. 2004 to present - Cooperative Resource Management Forester - State of Hawai‘i Department of Lands & Natural Resources (DLNR) Division of Forestry & Wildlife.
- Nov. 1999 - Nov. 2003 - Territorial Forester for American Samoa and Forestry Extension Program Manager - American Samoa Community College (ASCC).
- 1999 - Research Assistant. Forest inventory, silviculture, statistical analyses, and professional poster design and production. Dioxin and heavy metal contamination in honeybees and ground beetles from paper mill wastewater. Abitibi Consolidated. NAU.
- 1998 - Biological Monitor for the desert tortoise (*Gopherus agassizii*). Mojave Desert, CA. North State Resources. Redding, CA.
- 1997 - Crew supervisor entomological research studies with paper mill effluent. NAU.
- 1995 - 1997 - Peace Corps Recruiter and Advisor. NAU.
- 1992 - 1993 - Supervised the Tube Well Project. Lutheran World Relief/Peace Corps. Based in Maradi, Niger and installed wells throughout West Africa.
- 1990 - 1992 - Peace Corps Volunteer. Agroforestry. Golom, Niger West Africa.

**KNOWLEDGE, SKILLS & ABILITIES:**

- Extensive grant writing experience.
- Large & small project management.
- Supervisory experience with diverse cultures and varying ages.
- Large program and budget management experience.
- Extensive knowledge of USDA and USDOJ Landowner Assistance Programs.
- Knowledge of a variety of ecosystem types and conservation practices in the tropics.
- Experienced with natural resource policy development in Hawai‘i & the US Pacific.
- Familiar with US International Pacific Islands cultures.
- Extensive natural restoration and conservation management plan development in the tropics.
- Familiar with the following flora: tropic & humid tropics, specializing in Pacific regions
- Installation of various drinking water wells & hand pumps in arid and tropical areas.
- Certified Scuba Diver.

**PROGRAM MANAGEMENT:**

Hawai'i Forest Stewardship <http://hawaii.gov/dlnr/dofaw/forestry/fsp>

*Landowner assistance funds distributed to private landowners*

HI Urban & Community Forestry [www.kaulunani.org/](http://www.kaulunani.org/)

*Community assistance funding and urban forestry research*

HI Forest Legacy Acquisition for conservation purposes -

[www.state.hi.us/dlnr/dofaw/Legacy/index.html](http://www.state.hi.us/dlnr/dofaw/Legacy/index.html)

**GRANTS AWARDED LAND ACQUISITION FOR CONSERVATION PURPOSES:**

1) National Fish & Wildlife Foundation	
- Barn Owl & Predator Control on Kauai (co-authored)	\$300k
- Seabird Predator Proof Fence Construction on Kauai (co-authored)	\$299k
2) Navy Readiness & Environmental Protection Integration	
- Landscape Level Endangered Kauaian Seabird Protection (co-authored)	\$1m
3) <u>USDA Forest Service Fire &amp; Aviation Program</u>	
- Kōke'e Timber Fuel Reduction	\$750,000
4) <u>USDA Forest Legacy Program</u>	
- Kainalu Forest Watershed - (614 acre conservation easement Molokai, HI)	\$1.5m
- Kealakekua Heritage Ranch Phase I (4,500 acre CE Kona, HI)	\$2m
- Kealakekua Heritage Ranch Phase II (5,000 acre CE Kona, HI)	\$2m
- Wao Kele o Puna (26,000 acres fee simple in Puna, HI)	\$3.35m
- Na Wai Eha (13,166 acres fee simple in Maui)	\$2m
5) State of Hawaii <u>Legacy Land Conservation Fund</u>	
- Kainalu Forest Watershed	\$500,000
- Carlsmith Ball (1,300 acre fee simple Hilo HI)	\$430,000
6) <u>USDOJ Recovery Lands Acquisition Program</u>	
- Kainalu Forest Watershed Phase I	\$1.5m
- Kainalu Forest Watershed Phase II	\$1.5m
- Yee Hop Multi-parcel (3,100 acres Fee Simple Kona HI)	\$1.8m
- Carlsmith Ball (1,300 acres Hilo, HI area)	\$897,000

**APPOINTMENTS & AWARDS:**

- Forest Service Regional Forester's Honor Award Kōke'e Forest Restoration. 2015
- Megaflorestais Global Issues in Governance of Natural Resources Leadership Seminar. 2011
- Forest Service Western Region Competitive Grant Review Team. Oct. 2008 - 2010
- Chairperson, Pacific Island Committee ([www.islandforestry.org](http://www.islandforestry.org)). Feb. 2007 - May 2009
- Distinguish Service Award, Hawaii Conservation Conference - Honolulu, HI July 2008
- Represented DLNR at The Tenth Pacific Islands Roundtable for Nature Conservation meeting in Suva, Fiji. July 2006
- DLNR Sustained Superior Performance Award. June 2006
- Represented the Western Forest Legacy States at the National application ranking meeting - Washington D.C. Jan. 2006
- Vice Chair, Pacific Island Committee. Feb. 2005 - Feb. 2007 & Secretary Jan. 2000 - Feb. 2005
- Co-Founder, American Samoa Selective Invasive Species Taskforce 2001 - 2003

**SELECTED PUBLICATIONS AND TECHNICAL PAPERS:**

- Contributing Author – 2010. Hawaii Forest Action Plan - <https://dlnr.hawaii.gov/forestry/info/fap/>
- Mann, Sheri. Federated States of Micronesia Forest Legacy Program Assessment of Needs. June 2010
- Mann, Sheri. Upper Kukaiau Ranch Conservation Easement Baseline Report. Dec. 2009
- Mann, Sheri, K. Friday, S. Smith. 2010 Edition. Federal and State of Hawai'i Incentive Programs for Land Management on Private lands. Technical Paper
- Multi-Agency Collaboration. 2007/08. House Concurrent Resolution 200 Final Report. Hawai'i Twenty-Fourth Legislature Session of 2008. Technical Paper
- Seamon, Joshua O., S.S. Mann, O.C. Steele, R. C.B. Utzurrum. 2006. Conservation Value of Remnant Forest Patches. Pacific Science, Vol. 60, no. 3:319-332. University of Hawai'i Press.
- Mann, S.S., HI Forest Stewardship Committee. 2004. Hawai'i Forest Legacy Program Revised Assessment of Needs. Feb. 2004. Technical Paper  
[https://dlnr.hawaii.gov/forestry/files/2018/12/Hawaii-Forest-Legacy-Assessment-of-Needs\\_FINAL.pdf](https://dlnr.hawaii.gov/forestry/files/2018/12/Hawaii-Forest-Legacy-Assessment-of-Needs_FINAL.pdf)

**COMMITTEE, SOCIETY & TEAM MEMBERSHIPS:**

- Society of American Foresters. 1996 - present
- Pacific Island Committee. 2000 - 2012
- Western States Global Climate Change Group. 2008 -2010
- Western Forest Resources Management Committee. 2005 - 2008
- National Water Resources Council. 2002 - 2003
- National Association of State Foresters (NASF). 1999 - 2003
- National Urban and Community Forestry Council. 1999 - 2002

**SELECTED PRESENTATIONS:**

- Status of Rapid Ohia Death on Kauai. Kauai Community College. 2017
- Natural Resource Issues from American Samoa to Palau. Hawai'i Conservation Alliance Lecture Series. 2010. Honolulu
- Forest Related Issues in Hawai'i. 2009. Pacific Island Committee. Palau
- Natural Resource Management Issues in Hawai'i. 2008. PIC Rota, CNMI
- Natural Resource Management Issues in Hawai'i. 2007. PIC Majuro, Marshall Islands
- US Pacific Islands - Wide Biodiversity Conservation Strategic Action Plan. 2006. Suva, Fiji
- Education and Research Opportunities in the Pacific. 2005. National Association of Professional Forestry Schools Regional Meeting. Kona, Hawai'i
- Gender Roles in Developing Countries. 2001. Building Bridges with Traditional Knowledge II International Summit - Issues Involving Indigenous Peoples, Conservation, Sustainable Development and Ethno science. Honolulu, HI. May 2001
- American Samoan Forest Inventory. 2000. United Nations Food & Agriculture Organization Forestry South Pacific Regional Conference. Apia, Western Samoa
- Pacific Island Forestry vs. Mainland American Forestry. 2000. Council of Western State Foresters - Seattle, WA

**TEACHING, WORKSHOPS & TRAINING EXPERIENCE:**

- Sept. 13, 28, 2010 - Land Preservation Workshops Lecturer. Honolulu & Hilo
- 2006-2009 - Landowner Assistance Workshops on all of the main Hawaiian Islands
- 2003, 2002 - Forestry and Agroforestry. ASCC
- 2001, 2000 - Survey of Agriculture. ASCC
- 1999, 1997 - Forestry in Developing Countries. NAU
- April 2007 - EPA - Hazardous Materials Phase I Class. Honolulu
- April 2003 & 2001 - Medicinal Samoan Plant Workshop. ASCC
- 2003 Guam - USDA - Forest Lands Enhancement and Forestry Assistance Training

**VOLUNTEER AND COMMUNITY EXPERIENCE:**

- Ohana Kewalo Condominium Board Association. 2009 - Present
- University of Hawai'i Peace Corps recruiting - 2006
- Vice Chairperson of American Samoa Humane Society. 2001 - 2003
- World Wildlife Fund member. 1999 - 2003
- The Nature Conservancy member. 1996 - 2000
- Peace Corps Volunteer, Niger West Africa. 1990 - 1993

**HARD COPIES OF PUBLICATIONS AVAILABLE UPON REQUEST**

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B.Sc. in Psychology from the University of Hawaii (Manoa): 1967-1972

**PROFESSIONAL EXPERIENCE**

<b>Start Date</b>	<b>End Date</b>	<b>Description</b>
7/14/2002	present	Garden Island Resource Conservation & Development Inc. - Administrative Assistant
8/16/2002	2/28/2007	Hertz Corporation – Vehicle Transporter
1998	5/31/2002	King Kaumuali'i Elementary School – Library & Computer Technician
1987	1992	Ferguson Bookkeeping Service – Payroll Clerk
1978	1980	Hanalei Bay Resort, Holiday Inn – Accounts Receivable
1972	1978	China House Restaurant, Honolulu – Office Manager