



**A Proposal to the
Hau'oli Mau Loa Foundation
for
2019 CGAPS Invasive Species Prevention Projects**

Introduction

In birding, a “Big Year” is a formal or informal challenge to see and document as many bird species as possible in a single calendar year. In many ways, it feels like 2018 has been a “Big Year” for CGAPS. This year, we’ve increased CGAPS capacity, engaged in crafting federal legislation with particular language for Hawai‘i, Premiered the *Saving ‘Ōhi‘a* documentary, worked with Ward Research to conduct focus groups, participated in the testing of in-water vessel hull cleaning and effluent capture technology, successfully advocated for funding for Rapid ‘Ōhi‘a Death (ROD) for the biennium, and more. Without the support of Hau‘oli Mau Loa Foundation, none of this would have been possible.

The coming year will be a year for taking stock and planning for CGAPS and for the ROD strategic response, and if all goes well, for rulemaking on ballast water, myrtaceae, and restricted plants. We are in the process of re advertising for the open legal fellowship position at Plant Quarantine and hope to start the new year fully-staffed. Multi-year projects including the in-water cleaning technology testing will progress with a workshop with international experts in spring 2019, although testing may not occur until 2020, and the little fire ant detector dog has been selected but not yet contracted.

CGAPS continues to participate in Hawai‘i Green Growth (HGG), and we are excited that the state’s work to align with and meet the United Nation’s Sustainable Development Goals will be highlighted.

We are requesting that two proposed projects be administered by Hawai‘i Conservation Alliance Foundation, as we have two amazing women that have agreed to help us. One contract would engage Audrey Newman to guide our strategic planning and a second contract would allow Sheila Sarhangi to participate in the planning process and begin work on communications planning and implementation.

The final project is a supplementary request for ROD. Little more than a month ago, researchers made the alarming discovery that the ROD pathogen can remain viable on boot brush stations that had been installed at trail heads statewide. This proved the theory that the pathogen can be spread in soil on people’s shoes. Samples from boot brush stations statewide will be collected and this supplemental request will support the testing of these samples, construction and testing of boot brush stations with decontamination capacity, and the production and dissemination of targeted communications to reduce the spread of ROD.

As in past years, there are several existing projects for which we have requested extensions. Mahalo for your consideration of these no-cost extensions! As always, please feel free to contact us with any questions or concerns about these or the projects proposed for 2019. We are truly grateful for your help and support. Mahalo nui loa.

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Project 1: CGAPS Invasive Species Law Fellowship Program (Goal 1, Actions 1-6)

Executive Summary

This project will provide continued salary and operational support for two full-time William S. Richardson School of Law Legal Fellows, and up to two interns to work in collaboration with CGAPS in reviewing invasive species prevention-related statutes and rules, providing internal analyses, and drafting improved statutes and rules for consideration.

Background

The CGAPS Law Fellowships continue to be one of the most successful projects of our partnership with HMLF. Andrew Porter continues to assist the Department of Land and Natural Resources-Division of Aquatic Resources (DLNR DAR) on ballast water and biofouling issues at the local and national level. The almost-certain change in federal regulations by the close of this year will mean extra work and a shortened timeline for setting in place state statutes and rules to be able to preserve state authority when federal rules come into force. Needless to say, support for Andrew to continue this work is extremely important.

Kathryn Stanaway, the second Legal Fellow was with us at the Hawai'i Department of Agriculture Plant Quarantine (HDOA PQ) for eight months, from January through mid-September, when she became the DLNR Division of Forestry and Wildlife Legal Fellow. Although Kathryn was with CGAPS for a relatively short time, she made amazing progress on two high-priority projects, the myrtaceae (myrtle family of plants) import restriction rule and the restricted plant rule, and she leaves behind detailed lists and products that HDOA and CGAPS continue to use. Kathryn also coordinated, hired, and supervised the first CGAPS Legal Intern, Tarita Keohokalole-Look, whose project is due at the end of fall 2018 semester. Kathryn has continued to assist in supervising Tarita and was called upon to represent DOFAW when the draft myrtaceae rule went to Small Business Regulatory Review in October. Hiring to fill the second Fellowship position is ongoing. The first recruitment resulted in no qualified applicants and the recruitment is being reopened.

In addition to this work, the Legal Fellows are occasionally called on to participate in U.H. William S. Richardson School of Law classes and workshops to foster the



Kathryn Stanaway assisted HDOA Plant Quarantine staff in preparing for the Small Business Regulatory Review Board and other steps to move the myrtaceae rule to public hearings.

understanding of invasive species issues with the learning community.

Existing funds are projected to last until the end of April 2019, assuming the HDOA PQ fellow is hired and starts around December. 15, 2018. Therefore, this request is for \$141,000, which would support two FTE from May 2019 to January 2020 with salary and fringe, travel, materials and supplies, plus up to two University of Hawai'i William S. Richardson School of Law interns.

The legal fellows will be responsible for continuing work on the following issues, in order of priority:

- Support DLNR DAR on rulemaking on state ballast water rules, and biofouling inspection/in-water cleaning rules
- Assist DLNR DAR and CGAPS in meeting compliance requirements for in-water hull cleaning and/or grooming technology testing
- Support HDOA PQ in reviewing intrastate and interstate prevention rules
- Continue to support HDOA in rulemaking restricting domestic importation of myrtle family plants, and parallel request to USDA for federal rulemaking for foreign importation
- Assist CGAPS in petitioning for rulemaking to restrict domestic importation of certain invasive plants, and subsequent request to USDA for federal rulemaking for foreign importation
- Gaps in quarantine action authority for federal agencies when human health vectors are found in international cargo or conveyances
- Address DAR policy gaps regarding aquaculture, including permitting for culture, facilities inspection (for biosecurity purposes), and compliance
- Support HDOA in exploring moving some of their invasive species violations to the Environmental Court
- Support CGAPS in implementing its Strategic Plan and the Interagency Biosecurity Plan

Deliverables

The deliverables will consist of regular reports and a year-end final report on progress towards these and other priority issues.

Budget: \$120,000 (\$6,000 overhead)

Project 2: Capacity Support for CGAPS PIO and Planner

(Multiple Goals and Action items; Goal 1, Action 5 & 6; Operational Goal 2)

Executive Summary

Funds are requested for six months of salary plus operating support for the CGAPS Statewide Invasive Species Public/Community Relations Coordinator (shortened to PIO), and ten months of salary plus operating costs for the CGAPS Planner. The goals of the PIO are to facilitate engagement and inter- and intra-agency communication; to coordinate and catalyze collaborative projects towards the goals

outlined in the CGAPS Strategic Plan; to promote key outreach messages; to educate decision makers, special interest groups, and the public about invasive species in order to effect a change in perception, actions, rules, or funding for invasive species issues. The CGAPS Planner goals are to plan and carry out particular projects such as the Restricted Plant rules and list, to assist in coordinating the CGAPS partnership, and strengthen communication networks. As a project of the University of Hawaii's Pacific Cooperative Studies Unit, CGAPS staff also conducts and coordinates research, and functions as a connector between the University's knowledge base, resource management agencies, and the community.



One of the core functions of CGAPS is to facilitate inter-and intra-agency and NGO communication through engaging stakeholders in quarterly meetings.

Background

The University of Hawai'i is a key resource in the effort to protect Hawaii's natural resources, economy, and residents from the threats posed by invasive species. Under the direction of Dr. David Duffy and in partnership with the CGAPS Chairs, this project will benefit the University of Hawai'i by integrating faculty, researchers, and students in Hawaii's biosecurity programs. Close collaboration between biosecurity agencies and the University also provide research and outreach capacity where there are currently gaps, and in turn, greater integration between the University and in Hawaii's biosecurity programs will enable faculty to identify job training and research pathways.

One example of this integration can be seen in the 2018 hiring of Chelsea Arnott as CGAPS Planner. Chelsea was a UH CTAHR Natural Resources and Environmental Management Master's student funded by HMLF as a part time Graduate Assistant under the direction of Dr. James Leary, CTAHR Assistant Specialist on Invasive Plant Species Management and the CGAPS PIO. In her current capacity, Chelsea is continuing the work she started as a Master's student, working towards petitioning the Hawai'i Board of Agriculture for rules to restrict the importation of certain invasive plants. Another example can be seen in the participation of the CGAPS PIO in leading invasive species discussions for classes and seminars for a variety of disciplines in the Natural Sciences. Existing funds for salary and fringe for the CGAPS PIO is projected to last through February, 2019. This request includes funding to cover approximately six months of salary and operating costs to continue work on CGAPS goals, manage HMLF prevention projects, contractors, and staff. Contributions from the Hawai'i Invasive Species Council, Hawai'i Department of Agriculture, National Park Service, and U.S. Forest Service also support the salary, fringe, and operating costs of this position. Funding for the CGAPS Planner is projected to last through March 2019, and this request would support this position through January 2020.

This request also includes a small amount for interisland travel for the Hawai'i-Pacific Weed Risk Assessment technician, Chuck Chimera (also a project of PCSU), to travel from his home on Hawai'i island to O'ahu to learn about the federal plant and pest restriction programs. We have long seen the gap in capacity at HDOA PQ in petitioning for federal protection under existing programs. Kathryn Stanaway, the CGAPS Legal Fellow with HDOA Plant Quarantine, had a Master's in environmental science which really helped fill this gap. However, lawyers that have a strong science background are somewhat rare, and this project to cross-train an existing expert on invasion biology in the research and federal petition process may help.

Deliverables

Progress reports are provided to the CGAPS Steering Committee and funders at quarterly meetings, and a final report will be produced and shared at the end of the year. Measures of effectiveness are included for projects where appropriate.

Budget: \$141,000 (\$7,050 UHF overhead)

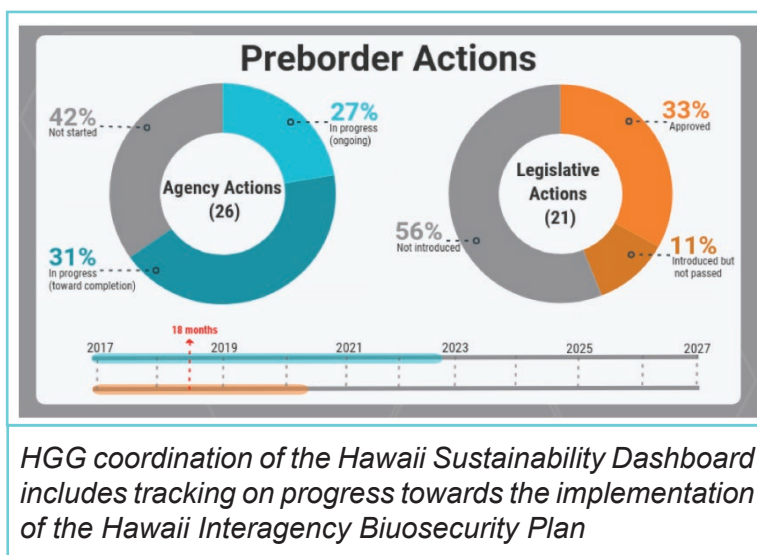
Project 3: Support for the Hawai'i Green Growth (Goals 3 & 5)

Executive Summary

Funds are again requested to provide support for Hawai'i Green Growth (HGG) leadership and work on 2019 partnership goals, including the implementation of dashboards for invasive species and natural resource protection, collaborative advocacy around shared priorities including the implementation of the Hawai'i Interagency Biosecurity Plan, and Hawaii's implementation of the United Nation's Sustainable Development Goals.

Background

Funds are requested to help support HGG, a public-private partnership that catalyzes action across government, private sector, and civil society to promote a culture of sustainability. HGG engages diverse partners in the work of biosecurity and related targets through the *Aloha+ Challenge 2030* sustainability goals, the 2016 IUCN WCC Legacy outcomes, the Hawai'i Sustainability Business



Forum, and the increased engagement with the United Nations on the Sustainable Development Goals. Through participation in HGG, CGAPS taps into a broader network for shared messaging and support for invasive species issues, and for the interrelated Sustainable Development Goals.

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Financial support for HGG is shared among multiple agencies and entities. Funding is requested to provide partial support to HGG for core operations and projects.

Deliverables

With continued support, HGG can continue to make progress on several common priorities, including the Aloha + Dashboard which tracks the implementation of the 2017-2027 Hawai'i Interagency Biosecurity Plan, and watershed and reef protection targets. HGG will provide updates and a year-end report.

Budget: \$25,000 (\$1636 O'ahu Economic Development Board overhead)

Project 4: Strategic Planning (Status Review & Strategic Planning for next 5 years)

Executive Summary

This project will use a contractor to facilitate the production of a new CGAPS Strategic Plan for 2020-2025. The project will consist of a review of past CGAPS documents, the current plan, and related plans including the Hawai'i Interagency Biosecurity Plan, followed by a SWOT or similar exercise, up to five smaller meetings, and the production of a new plan. The Hawai'i Invasive Species Council will provide an additional \$5,000 to support the joint SWOT.

Background

This project is an important opportunity to take stock of the purpose and function of CGAPS, and progress towards the goals described in the 2015-2019 CGAPS Strategic Plan, understand the relevant plans and frameworks, and help facilitate a common set of goals and objectives for the next five years. The contractor will review CGAPS's organizing documents and 2009 Action Plan for historic perspective, and the CGAPS Strategic Plan and progress reports, Hawai'i Invasive Species Council (HISC) Strategic Plan, and Hawai'i Interagency Biosecurity Plan to understand overlapping and unique priorities within each. The contractor will assess and summarize the status of CGAPS (internal and external efficacy as a coordinating function), and will work with CGAPS staff to engage a wider community to conduct a SWOT for CGAPS and the

Hawai'i Invasive Species Council to use as a starting point for these two parallel strategic planning processes (the HISC will also be conducting strategic planning in 2019). The contractor will then work with current CGAPS Steering Committee members and other knowledgeable experts to solicit input, organize information, facilitate up to five meetings, and draft a five-year strategic plan for CGAPS. Project funds will also support costs related to strategic planning workshops including lunch and refreshments for participants, facility rental, and materials and supplies.



CGAPS has implemented several actions listed in the 2015-2019 Strategic Plan, and is making significant progress towards others including petitioning the Board of Agriculture for rules and a Restricted Plant List. CGAPS Planner Chelsea Arnott and Shahin Ansari recently presented the project in a HISC Brownbag, available online.

Deliverables

The contractor will provide updates and summaries of work at the second billing point (the first billing will be upon signing the Scope of Work), and will organize all information into a document containing the status report and new strategic plan. The review and acceptance of the final document will be the third and final billing point. The Scope of Work will contain billing and deliverable dates and information, and will be filed with Hawai'i Conservation Alliance Foundation as our fiscal sponsor for this project.

Budget: \$30,000 (\$3,000 Hawaii Conservation Alliance Foundation overhead)

Project 5: Strategic Communications (Goal 3, Action 1, Goal 5)

Executive Summary

This project will use a contractor to assess the communication needs related to the CGAPS Strategic Plan goals and the Interagency Biosecurity Plan, in part by participating in the strategic planning process. This project will consist of the needs assessment, messaging, planning, and may include some implementation of the plan. A \$15,000 grant received from the Hawai'i Invasive Species Council will provide additional funds for the implementation of this project.

Background

Professional communications on invasive species is listed as a priority in the current CGAPS Strategic Plan, the Hawai'i Invasive Species Council Strategic Plan, and the Hawai'i Interagency Biosecurity Plan. However, hiring a traditional communications

company without clear and agreed-upon needs and messaging by the lead agencies would be difficult at best. Further, results from the 2017 survey of public attitudes and awareness shows that public awareness and concern about invasive species is very high, yet there are some major needs associated with implementing the next steps of the Interagency Biosecurity Plan. Therefore, this project would hire a contractor for planning and carrying out strategic communications, with the planning and messaging to be conducted during the strategic planning process.

Deliverables

The contractor will review relevant plans and studies, participate in strategic planning meetings, and provide updates and summaries of work for the second billing point (the first billing will be upon signing the Scope of Work). The review and acceptance of the strategic communication plan and any implementation of the plan by the contractor will be the third billing point. The Scope of Work will contain billing and deliverable dates and information, and will be filed with Hawai'i Conservation Alliance Foundation as our fiscal sponsor for this project.

Budget: \$13,000 (\$1,300 Hawaii Conservation Alliance overhead)

Rapid 'Ōhi'a Death (ROD) Supplemental Request: Addressing ROD Movement (CGAPS Goal 4, Action 1)

Executive Summary

Researchers have long known that people are one of ways that this disease can spread. Recent testing of boot brush stations at trail heads on Hawai'i island have found the presence of the pathogen's DNA in several brushes, and three stations contained viable spores of the pathogen. This additional funding request would support research, development and communications to address this pathway of spread, including partial funding for a lab technician to assist with processing samples from boot brush stations statewide in the USDA Agricultural Research Service laboratory. Funds would also support the construction and testing of new boot brush stations (or the retrofitting of existing stations) with a decontamination unit to reduce the risk of spreading the disease. Support for additional work through communications contracts and products are included in this request.

Background

The University of Hawai'i has played, and continues to play, a major role in the research, response, community outreach, and strategic planning related to Rapid 'Ōhi'a Death (ROD). This fall, ROD researchers tested a number of the boot brush stations that had been installed at dozens of trail heads across Hawai'i island and found the pathogen at several stations, three of which were viable. This discovery has increased the need to test and install a new type of boot brush station, one that also has a decontamination component. Several styles are in use in New Zealand to protect their native

kauri tree from a soil-borne fungal pathogen, thus this project would look to our New Zealand partners for the plans for these decontamination units for local construction and testing (see this demo for an example of one of the units: <https://www.youtube.com/watch?v=D3PI8452qf4> or search for this on YouTube: Preventing the Kauri dieback disease, Auckland, New Zealand). The units could be constructed by a contractor, or it may be possible to find in-house expertise to assist with some support.

This project would also provide the continued support of a lab technician to assist with processing samples from boot brush stations statewide. This position is funded by multiple grants through UHF and with UH College of Tropical Agriculture and Human Resources (UH CTAHR) as the Principal Investigators. Partial funding will provide critical support for this position and the anticipated increase in samples to process. A small amount of funds would support the new lab tech's participation in the Hawai'i Conservation Conference or other relevant sharing of ROD research, and some travel for neighbor island staff to travel to Hawai'i island for the ROD training.

A final component of this request is for support for small contracts to increase and target communications, including the production of two short video pieces that focus on reducing risk of spreading the pathogen while engaged in hiking or other forest use activities.

Deliverables

Updates and a final report on the boot brush study, including the results of the testing of new units, and all video products will be provided.

Budget: \$100,000 (\$5,000 UHF overhead)



People can spread the ROD pathogen further than it might normally travel. Support is needed to develop more effective decontamination and promote behavior change.

2019 Budget

Item	2019 Projects	Term	Admin	Direct	Overhead	Total
1	Legal Fellowship Support. Partial salary & operating support for two legal fellows + 2 interns	12/31/2020	UHF	\$ 133,950	\$ 7,050	\$ 141,000
2	CGAPS Core Support. Partial salary & operating support for PIO and Planner, project travel support for HPWRA, PCSU project support	12/31/2020	UHF	\$ 133,950	\$ 7,050	\$ 141,000
3	Support for Hawai'i Green Growth. Annual support for multi-sector approach to sustainability, incl. invasive species priorities	12/31/2019	OEDB	\$ 23,364	\$ 1,636	\$ 25,000
4	Contract for strategic planning for CGAPS for 2020-2025	12/31/2020	HCAF	\$ 27,000	\$ 3,000	\$ 30,000
5	Contract for communications plan and services focused on the goals of CGAPS and the HIBP	12/31/2020	HCAF	\$ 11,700	\$ 1,300	\$ 13,000
Total						\$ 350,000
Item	2019 ROD Supplemental Project	Term	Admin	Subtotal	Overhead	Total
1	Materials, supplies, labor for constructing trailhead decon stations for statewide use, partial support for lab tech, targeted communications	12/31/2020	UHF	\$ 90,000	\$ 5,000	\$ 100,000