A Proposal from the Coordinating Group on Alien Pest Species to the Hau'oli Mau Loa Foundation

# Introduction

Two independent studies in the 1990s (The Nature Conservancy/Natural Resources Defense Council, 1992; and Office of Technology Assessment, 1994) found that Hawai'i had the nation's worst alien pest problem due to gaps in prevention, detection and control programs, exacerbated by a lack of inter-and intra-agency communication and cooperation. The Coordinating Group on Alien Pest Species (CGAPS) was formed in 1995 in direct response to these analyses.

The CGAPS Steering Committee meets at least quarterly and is comprised of participants from the Hawai'i Department of Agriculture (Plant Pest Control Branch and Plant Quarantine Branch), Department of Land and Natural Resources (Division of Aquatic Resources and Division of Forestry and Wildlife), U.S. Department of Agriculture/Animal and Plant Health Inspection Service, U.S. Department of Homeland Security/Customs and Border Protection, U.S. Department of Agriculture/Institute of Pacific Islands Forestry, U.S. Geological Survey/Pacific Island Ecosystem Research Center, U.S. Fish and Wildlife Service, The Nature Conservancy of Hawai'i, Bishop Museum and the Invasive Species Committees of Hawai'i.

The CGAPS Steering Committee's collaboratively produced ten-point Vision and Action Plan (updated in 2009) is a critical assessment of the status and needs of the different aspects of this issue, and an agreement that specifies the responsible agencies or NGOs in addressing these needs.

Despite significant achievements since the formation of CGAPS, much remains to be done. In this proposal, the CGAPS Steering Committee has identified four top priority projects as important components for building a comprehensive prevention program to keep new invasive species from entering the state.

As committee members discussed the many potential projects, we found a lack of significant one-year projects that are shovel-ready, with the necessary infrastructure or framework set to move forward. This reflects the difficult nature of multi-agency work, differing jurisdictions, and in some cases the lack of personnel to implement a program. Loss of funding and personnel in HDOA is the primary reason that one high priority project is not included in the proposal (re-instituting HDOA's detector dog program to search incoming cargo and crafts for brown treesnakes, produce, and other high risk items. The lack of shovel-ready projects also underscores the need for cooperation, planning, and persistence by all of the agencies and NGOs in effecting change. Therefore, several of the projects are multi-year and may be structured so that second year funding is contingent on deliverables from year one if funds are received.

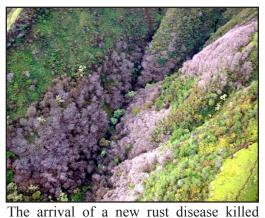
The CGAPS Steering Committe is grateful for the opportunity to submit this proposal, and we are happy to discuss any of the following projects in more detail.

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# **Project: Capacity-building to Enact a Restriction on Myrtaceae Imports to Protect 'Ōhi'a (**CGAPS Action Item 7)

## Description

A formal restriction on the importation of plants and plant parts in the Myrtaceae family is needed to protect the 'ōhi'a tree from a particularly virulent plant disease known to travel on Myrtaceae products. The proposed multi-pronged approach will support rulemaking by the Hawai'i Department of Agriculture (HDOA), help develop local capacity to detect and genetically identify the disease, ensure proper training in enforcing the restriction, and maximize compliance with the new rule.



rose apple trees statewide. Different strains

of the rust could arrive and kill 'ohi'a,

Hawaii's most important native forest tree.

Background

Eucalyptus rust is a disease caused by the fungus *Puccinia psidii* which attacks a wide range of plants in

the Myrtaceae family. Known locally known as 'ōhi'a rust, one strain of the rust was accidentally introduced to Hawai'i, where it was discovered on 'ōhi'a (*Metrosideros polymorpha*). The rust has killed large numbers of rose apple trees (a non-native tree in the Myrtaceae family) across the state. Although impacts to 'ōhi'a have been limited to date, research shows that the arrival of potentially more virulent genetic strains of the rust pose a great risk to the endemic 'ōhi'a, which comprises 80 percent of the native Hawaiian forest and is an important watershed tree.

The introduction of a more virulent strain of Eucalyptus rust to Hawai'I could be devastating to the dominant native tree species, forest habitat, and the many dependent plant and animal species. A more virulent strain could arrive when infected plants in the Myrtaceae family are imported, for example as nursery plants, timber species, biofuel plants, or cut flowers. Many bouquets and plant imports contain popular Myrtaceae species, including cut eucalyptus and wax flowers. The Hawai'i Department of Agriculture has already intercepted the rust on cut foliage entering the state. The high level of threat, documented interceptions, and recent news of the rust spreading internationally make the need for restricting the importation of plants in the Myrtaceae family a high priority.

To restrict importation of Myrtaceae, HDOA must prepare the case for the restriction and conduct formal rulemaking, while simultaneously working to minimize the impact of the restriction on industries that currently import or use Myrtaceae.

#### Need

Before going through the rulemaking process, HDOA needs to ensure that the proposed restriction will not be rejected during the business-impact review process. HDOA needs to help local wholesale and retail flower/foliage businesses develop substitutes for imported myrtle familycuttings from California and Central and South America. Actions could include supporting propagation of acceptable planting material and providing marketing assistance for locally produced cut foliage or flowers.

Local expertise must also be built in rust diagnostics and potential treatment for commodities that would be conditionally approved for entry. Australian agencies and organizations are actively engaged in prevention and detection work on the 'ōhi'a rust and recently enacted a restriction on importation that is similar to what is needed in Hawai'i. To build local capacity, a 2-3 person team should travel to Australia to work with personnel from Australian agencies actively involved in this work. Additionally, support is needed for statewide outreach to Myrtaceae importers and the public to increase awareness and compliance.

### Benefit

The 'ōhi'a tree is the dominant native forest tree in moist and wet forests and many native animals depend on it for survival. Approval of a restriction on the importation of Myrtaceae will greatly reduce the chance of the entry of new, potentially more devastating strains of this rust. Diagnostic expertise and testing for commodities that are conditionally approved for entry would mitigate the impact that a complete ban would have on particular imports such as eucalyptus seeds for forestry.

#### Cost

# **Project: Build Electronic Capacity to Prioritize and Streamline Air Cargo Inspection** (CGAPS Action Item 1, 3, 8 and 9)

# Description

Expand and upgrade database software for Hawai'i Department of Agriculture Plant Quarantine (HDOA-PQ) Branch's INVICTA computerized database. New software will receive incoming air cargo manifests in advance of the flight and automatically organize, track, and prioritize the risk of different containers and cargo. This system will enable the efficient use of limited inspection resources and allow for randomized checks of lower-priority cargo to ensure compliance and system efficacy. Electronic linking of HDOA-PQ systems at ports with Bishop Museum databases will allow sharing of new pest alerts with other relevant users, including government agencies, party dataction/rapid response parageneous



Added manifest and database capacities would enable prioritization of high risk air cargo for pest inspection.

early detection/rapid response personnel, land managers, and land owners.

### Background

The vast majority of pests are introduced to Hawai'i via air in fresh produce and live cargo. One risk assessment on domestic air cargo entering Kahului Airport found an average of one new (not known to occur in Hawai'i) insect or plant disease arriving every day on Maui, which receives less than 2% of all incoming goods in the state. HDOA inspectors are faced with hundreds of containers of air cargo nearly every hour. Recently passed legislation now requires airlines to provide detailed manifests listing the contents of containers before the arrival of the flight so that inspectors may better use limited resources to target high-risk commodities for inspection. HDOA developed a database system ("INVICTA") to track the movement of pests from foreign, domestic and island sources, but it has not been updated to capitalize on the agency's improved ability to prioritize inspections.

#### Need

While the INVICTA software for arriving sea cargo has been upgraded to receive and prioritize ship cargo manifests, software for air cargo manifests has not been upgraded because funding has not been available.

#### Benefit

The automated ability to receive, review and prioritize cargo before the arrival of flights greatly enhances inspection capacity, which results in more pests stopped at ports, the expedited release of low-risk cargo, the potential for checking compliance and risk ratings, and potentially cleaner shipments of goods.

#### Cost

# **Project: Build Electronic Capacity to Support a Petition for Federal Inspection Assistance (**CGAPS Action Item 1, 7, and 8)

## Description

A multi-phase project to coordinate, update, and improve databases of insects, plant pathogens, and mollusks known to occur in Hawai'i. These data, along with pest interception data from the INVICTA database would then be used to request federal assistance in watching for these priority pests.

#### Background

Federal and state agencies are responsible for inspecting incoming international and domestic cargo (respectively). Federal inspectors are not mandated (or allowed) to inspect for, or take action on, pests on the state's priority watch list. Unless a pest is on the federal actionable list (which is largely comprised of pests of mainland agriculture), inspectors are not required to



Databases documenting the presence and absence of pests provide vital data that can be used to gain federal inspection and prevention assistance.

stop or take action on the pest or commodity. However, a recent change allows state agencies to petition for federal recognition of particular state priority pests if it is not known to occur in Hawai'i.

#### Need

The federal US Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS) requires documented presence/absence data and potential pathway information on specific pests that Hawai'i inspectors are working to prevent from entering. Currently, there are several databases of various types of pests in different agencies and institutions. However, it is not known if databases exist for all relevant types of pests or if they have been updated recently.

The goal of the presence/absence database/s project is to apply to USDA APHIS for federal recognition of specific pests to gain inspection capacity on international conveyances. To do this, data must be gathered on presence/absence of insects, mollusks, plant pathogens and compared with species intercepted at ports (already collected in INVICTA) but not present to show pathway and potential for introduction. Coordinating the agencies and entities with existing databases and identifying needs is the first priority in this three phase project.

#### Benefit

The resulting data set will allow the State to apply for greater protection from specific pests coming from international ports. If approved, federal inspectors will be able to watch for the State's priority pests in international cargo and conveyances, effectively more than doubling the State's inspection capacity for designated priority pests.

#### Cost

# **Project: Capacity Support for the Coordinating Group on Alien Pest Species Prevention Priorities**

# Description

Partial support (50%) for 1 FTE to continue the momentum of the CGAPS Action Plan, coordinate partners, and facilitate communication and collaboration on prevention priorities.

# Background

CGAPS has a single staff member (Public Information Officer, PIO) whose primary goal is to raise public awareness about invasive species issues in order to positively change perceptions and actions, and increase funding for invasive species programs. Outreach is conducted in a number of ways, including television, print, radio media, news stories, public displays, educational materials, and direct outreach at community events and schools. The CGAPS PIO also



The CGAPS PIO facilitates internal communication and collaborative projects, and raises public support for invasive species initiatives.

coordinates the CGAPS partnership and facilitates communication within and between agencies and NGOs involved in invasive species issues in the State of Hawai'i.

# Need

The federal grant which provides funding for CGAPS coordination and public outreach will be depleted by October 2012 and future funding is uncertain at best. Additional support will allow federal funds to last longer, ensuring stable funding through April 2013.

# Benefit

Communication and cooperation are the most important assets of the CGAPS partnership, and without a coordinated approach, we would not have had many of the successes described in the CGAPS Action Plan. The role of the PIO is to engage the CGAPS partners, make connections between people, and be the facilitator, writer, or coordinator that the partnership needs to achieve the common goal of protecting Hawai'i from the impacts of invasive species. Although other agencies have public outreach functions, the CGAPS PIO has more flexibility in voicing information and needs to the state legislature and in the press.

# Cost