

Big Island Invasive Species Committee Strategic Plan

This Draft Strategic Plan has been reviewed by the BIISC Operations Working Group and is posted on the BIISC listserv. The plan is not strictly a “strategic plan” but rather a hybrid between a strategic plan and an annual operating plan. The plan will be completed by the new BIISC Committee Manager with input from the BIISC membership. In general, the plan proposes to: diversify BIISC’s work to include more early detection and rapid response activities, particularly by first gathering all the data we currently have in disparate locations and with various agencies, and then determining an effective early detection strategy; evaluate the efficacy of Miconia control efforts to date with our NFWF grant this year; continue to control Miconia at high priority sights. This year will put a lot of emphasis on information gathering and synthesis to determine the hit list species. Once the MOA and operations are worked out and a new manager is on board we can revisit the “strategic plan” as a group. In the meantime, comments can be sent to the current BIISC Committee Chair, Anne Marie at alarosa@fs.fed.us.

Big Island Invasive Species Committee Strategic Plan

Mission Statement:

To prevent new invasive pest infestations on the island of Hawaii, to stop newly-established pests from spreading and to provide local control of established pest species.

Summary of Operating Principles

The Big Island Invasive Species Committee (BIISC, or the Committee) is an inclusive, consensus-based partnership of private, government and non-profit organizations and individuals receptive to wide-ranging viewpoints and approaches to find common ground and innovative solutions to invasive species problems on the island of Hawaii. The Committee focuses efforts on prevention and control of incipient pest infestations and control and containment of priority established pests (e.g., Miconia).

For our purposes, priority invasive species are those species brought to the Hawaiian Islands by humans (non-native) that are known to be invasive in Hawaii or other areas with similar climate and environments. In addition, there is evidence that the species does or is likely to cause significant harm to the economy, environment, human health or the quality of human life within Hawaii County.

BIISC strives for effective pest prevention and control through communication, coordinated planning and organizational support. The Committee seeks to coordinate specific eradication or containment projects through existing agencies and authorities whenever possible and to facilitate (raise funds), organize (pool resources), advise (provide information). When existing capabilities are insufficient, BIISC will administer new programs by increasing local capacity to attack pest problems and respond to imminent threats. BIISC measures success in terms of pest infestations prevented, contained or eradicated and priority habitat areas protected.

BIISC has identified long term goals in education, prevention, detection, control, monitoring, and restoration. To meet these goals BIISC will engage in the following general activities:

1. Provide an island-wide forum for discussion of non-native invasive species issues.
2. BIISC will support a coordinated information clearinghouse on invasive species for the island of Hawaii
3. Work with agency officials to identify priority pests for prevention, early detection, eradication or containment.
4. Develop management strategies and implementation plans with measurable objectives.
5. Form ad-hoc task groups or host workshops or meetings, as needed, to address new or continuing invasive species threats.

6. Make recommendations for regulatory changes.
7. Foster public awareness of invasive species (incipient and established) through education, outreach, volunteerism, and collaboration.
8. Provide quality, science-based information to the general public, elected officials, media, community leaders, agency representatives and other members of the island community.
9. Coordinate specific eradication or containment projects through existing agencies and authorities whenever possible; facilitate (raise funds), organize (pool resources), and administer new programs to increase local capacity to attack pest problems.

PREVENTION, EARLY DETECTION, AND RAPID RESPONSE

PREVENTION

Goal:

Work cooperatively with others in the State to prevent new introductions to the island of Hawaii from neighbor islands, the U.S. mainland and abroad, and to prevent invasive species present only on the island of Hawaii from escaping to neighbor islands.

Strategy: FY 04/5 to 09

1. Work with landowners and developers to develop proactive Codes, Covenants & Restrictions and development permits to prevent the introduction of invasive species in new subdivisions.
2. Work with public agencies and private landowners to determine native and non-invasive alternatives for landscaping and restoration activities

Goal:

Prevent the establishment of potentially invasive introduced plants and animals.

Strategy: FY 04-05

1. Using the Hawaii-Pacific Weed Risk Assessment, species of concern on other islands (other ISC priority species lists); and information from nurseries, botanical gardens and others to predict invasive species entry pathways and taxa or life forms which may pose significant threats to the economy, environment and quality of life on Hawaii. Use information to assist in developing the species watch list for BIISC.
2. Maintain local hotline and database for reports of new species.
3. Develop an island-wide invasive species database using available data on distribution and population sizes from agencies and individuals (weed maps, roadside surveys, etc.). Weed Survey Project (USGS), NPS roadside and trailside surveys; and existing GIS maps). Develop current and potential distribution maps for select species; for areas of highest risk; for areas of highest value (natural and economic); and for potential pathways.

4. Develop/modify/select feasibility criteria and a scoring system for choosing target species.
5. Using information gathered from various surveys and the scoring system described above, develop a watch list for which species to survey and report. Select target species and identify additional areas to survey.

Strategy: FY 05-09

1. Develop prioritized list of species and locations for control efforts in years 2-5
2. Design survey methods for gathering invasive species location information from various members of the public, e.g. hunters, hikers, gardeners, etc.
3. Working with partners, survey roads and trails in selected areas for high priority target species.
4. Provide technical assistance and training on plant identification, control methods, etc. to community groups and others, as appropriate.
5. Develop and maintain the Big Island Invasive Species Information System. The System would be a clearinghouse for invasive species information and facilitate coordination. It would include the invasive species hotline, island-wide database and an informational website for use by the public and agencies and individuals interested in invasive species control. The system would log incoming reports/incidents, report to appropriate agency/group for action, log action into database and follow-up with caller. Maintain database and produce status reports, periodically and as needed.
6. Staff BIISC with expertise for early detection and rapid response
7. Review species list annually to determine current status, risk assessment, potential impact, feasibility of control, success of control efforts, any change in priority, available resources, new species or new populations of established species discovered and possible changes in target species. All potential target species will be evaluated using the Hawaii-Pacific Weed Risk Assessment, input from invasive species experts, and direct observations.
8. Perform detection/surveys for selected species. Initiate control, as appropriate.
9. Encourage agencies to fill critical vacancies as they arise (e.g., weed scientist –UH-CTAHR extension specialist; HDOA noxious weed specialist).
10. Work plant industry on the Big Island (and CGAPS) to develop alternatives to invasive species in the trade.

RESPONSE AND CONTROL

Goal:

Support specific eradication or containment projects through existing agencies and authorities whenever possible and facilitate (raise funds), organize (pool resources), and administer new programs to increase local capacity to attack pest problems.

CONTROL OF ESTABLISHED INVASIVE SPECIES

Miconia calvescens

Miconia continues to threaten native forests and agricultural lands on the island and remains BIISC's primary target species for control.

Goals:

Contain *Miconia* in East Hawaii, particularly at sites that are threatening important natural areas and agricultural lands. Focus on outlying plants and those periphery sites that are logistically difficult and where lack of control now will result in greatly increased control costs in the future (e.g., gulches).

Eradicate existing populations of *Miconia* in West Hawaii.

Prevent future spread into un-infested regions of the island, e.g. Kohala, Ka'u.

Strategy: FY 04-05

1. Evaluate the effectiveness of current *Miconia* control strategy on Hawaii with NFWF funding in FY 04/5 and make recommendations for long-term strategy and costs – 6 months
2. Maintain an active monitoring program by increasing helicopter surveys on perimeters of infestation -
3. Maintain an updated map and database of the extent of infestation and the location of new outliers; ensure data compatibility with other ISCS
4. Continue rappelling program to eradicate sparse populations in hard to reach gulches – consider contracting.
5. Continue *Miconia* ground control operations at high priority sites.
6. Increase interaction and coordination with state and federal agencies with programs to provide logistical, technical or financial support for controlling *Miconia*.
7. Using existing data, risk assessment and decision trees, develop a system to evaluate priority control targets for *Miconia*. Consider biology, economics, watershed values, health and safety and water quality issues.
8. Continue to provide technical support to Kamehameha Schools, as needed, for controlling *Miconia* in West Hawaii.
9. Resurvey areas in Kohala, Kau and any areas outside Kamehameha lands in West Hawaii with previously documented *Miconia* individuals or small populations and control all individuals (of all size classes) located during surveys.

Strategy: FY –05 to 09

Implement long-term control strategy based on recommendations in NFWF-funded evaluation.

Bocconia frutescens

Bocconia poses a serious threat to Hawaii Volcanoes National Park (HAVO) and other natural areas in the southern half of the Big Island. The extent of the *Bocconia* invasion on the island of Hawaii was mapped in 2003 and recommendations made for control actions.

Goal:

BIISC will work with partners to contain selected *Bocconia* populations, eradicate outlying populations, and prevent populations from spreading into high value areas, as identified by BIISC and others.

Strategy: FY 04-05

1. Using information from various sources, develop an island-wide distribution map/model for *Bocconia*.
2. Support containment of the **Wood Valley** infestation through partnerships with local landowners and surveying and controlling plants along the boundary with Hawaii Volcano National Park (HAVO).
3. Control *Bocconia* in Kaalaala gulch and other gulches makai of Hwy. 11 which pass through the infestation area and are near the western boundary of HAVO (**Wood Valley population**).
4. Work with DOFAW and others to eradicate the 84 acre infestation in **Manuka**. Monitor population trends and spread.
5. Control plants within the Honomalino population and in adjacent Ohia woodlands and other habitats surrounding the present infestation. Work the Nature Conservancy to contain the infestation to 600 acres.
6. Evaluate effectiveness of the FY 04-5 control program and design a program for out-years.

Strategy: FY 05 to 09

1. Evaluate the benefit of and priority for eradicating the 19 mapped outlying populations in **Wood Valley**.
2. Work with willing landowners to control infestations on private lands in **Honomalino**
3. Aerially monitor the corridors through which *Bocconia* could reach HAVO and other natural areas, including Kau Forest Reserve and Manuka NAR once every 3-4 years.
4. Monitor previously infested areas in **Kau Forest Reserve** jeep trail and all roads leading out of the infestation area every third year
5. Monitor any areas with new canopy disturbance of significant size within and around the areas of known *Bocconia* infestations within 3-4 years of disturbance
6. Research and document seed longevity and capacity to form seed banks. Adjust monitoring frequency accordingly.
7. Develop recommendations to land managers/owners on methods to prevent/minimize additional *Bocconia* infestations when clearing abandoned cane lands and harvesting eucalyptus
8. Monitor all control areas at least every three years until *Bocconia* free for at least six years.

Coqui Frogs (*Eleutherodactylus coqui*)

Goal: Cooperate with State and Federal agencies to contain the spread of coqui frogs on the island of Hawaii.

Strategy FY 04-05

1. Maintain invasive species and coqui hotline and coqui database if funding provided for the latter.
2. Assist other agencies and volunteers in priority control work as needed and as resources permit.
3. Continue outreach, survey and control program near Hawaii Volcanoes National Park. Eradicate all reported frogs mauka of Kahaulea.

Little Fire Ants (*Wasmannia auropunctata*)

Goal: Prevent the spread of Little Fire Ants from nurseries to new areas via infected nursery stock.

Strategy FY 04- 05

1. Assist HDOA with suppression of LFA in target nurseries.
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RESEARCH AND APPLIED TECHNOLOGY

Goals:

Support increased emphasis on development of biological control agents for priority pests.

Support development of new technologies to aid in detection, control and monitoring of invasive species in Hawaii.

Strategy: FY 04/5-09

Biological Control

1. Support ongoing research programs for bio-control programs conducted by USFS, HDOA, UH-CTAHR, USGS-BRD.
2. Assist agencies with outreach on pending bio-control agent releases.
3. Assist with dissemination of bio-control agents, as opportunities arise.
4. Support agencies in filling critical vacant positions (e.g., CTAHR pathologist)
5. Support use of HISC research funds for quarantine work for Hawaii.

Research

1. Support research to improve our ability to predict potential ranges and vulnerability of sites to invasion by new introductions of potentially invasive species.

2. Work with UHM-CTAHR and other ISCS to evaluate costs and benefits of Miconia and Psidium invasion and control.

OUTREACH

Goals:

Through information developed and distributed by BIISC and its members, individuals and community groups will understand the impacts associated with invasive species, both to their property values and to the economy, health and ecosystems of Hawaii, know how to recognize important invasive species, and accept responsibility for control of these species on their property.

Plant industry groups will be informed about invasive species, including vertebrate and invertebrate pests of nurseries (e.g., coqui frogs) and work towards the common goal of reducing their spread, sale and use in plantings on Hawaii.

Strategy: 04/5 to 09

Cooperative Programs

1. Cooperate with statewide effort to develop and implement incentive programs to increase industry and public participation in fighting invasive species. Publicly recognize (newspaper ads, PSA's, project literature, etc.) businesses and groups for implementing such programs on the Big Island.
1. Develop a local business roundtable for regular discussions with industry on invasive species issues and cooperative solutions.
2. Increase BIISC membership and support base by encouraging new participation from groups representing federal, state and local agencies and governments, conservation groups, economic interests, local business, diversified agriculture, community associations and volunteer groups, garden clubs, and other organizations.
3. Assist volunteers and community action groups (e.g., Malama O Puna) with planning, organizing and technical expertise in control of high priority target species and develop new community partnerships in key areas, such as Volcano and Ocean View
5. Conduct periodic briefings with local, state, and national government representatives and legislators and their staffs. Report on progress and accomplishments.
6. Increase communication and coordination with, and participation in, CGAPS and HISC.

Information/Education Program

1. Develop, produce and distribute fact sheets and weed ID cards on: the top 20 priority invasive species on the Big Island, including their identification, current use, location and nature of the problem, and how to control it. Include Hotline

- number. Develop fact sheets on species still used in the plant industry that include alternative plant recommendations.
2. Maintain an interactive invasive species Information System (hotline, website, list-server) that provides information on detection, distribution and identification of invasive species on the Island of Hawaii. Provide current information and regular updates. Clearinghouse here
 3. Present talks/presentations on selected invasive species and topics of importance (e.g. buying plants from mail order companies) to plant interest groups, community associations, school groups, etc., at least monthly using various media and forums.
 3. Work with community associations to develop an invasive species outreach and education program targeted to new (to Hawaii) and absentee landowners.
 4. maintain a BIISC website

ADMINISTRATION AND HUMAN RESOURCES
TO BE DEVELOPED