



## Big Island Invasive Species Committee Action Plan for 2003

### Introduction

In this Action Plan for 2003, the Big Island Invasive Species Committee (BIISC) sets out the objectives and actions planned for the coming year. BIISC's long term goals and objectives can be found in the supporting document: The BIISC Strategic Plan.

Fiscal year 2003 will be one of growth and expansion, while we promote the development of the new Rapid Response Team which promises to take our survey and control work beyond the single-species effort of Operation Miconia. The Team will be working primarily in West Hawaii, where grants from the US Forest Service, the Hawaii Community Foundation and the National Fish and Wildlife Foundation will be funding a field crew that will address several priority plant species, such as *Bocconia frutescens*. The database and hotline reporting systems will be upgraded to help support these expanded efforts.

The Rapid Response Team is also planning to assist in the completion of a Highway Weeds Survey initiated by the US Geological Survey's Biological Resources Division. This on-foot survey of the Belt Highway serves as one component of the Big Island's Early Detection system whereby incipient populations of priority invasive plants can be found and responded to before they become well established.

Operation Miconia's field crew now consists of six people. They will be continuing to implement the Miconia Strategic Management plan, with focus on controlling Miconia in Hamakua and the Scenic Drive and returning to Fern Forest for follow-up activities. Since the crew will occasionally be called upon to address species other than Miconia, they are referred to in this plan as the BIISC Field Crew.

### Continuing Activities

1. BIISC will work to increase the level of coordination with its key partners: the State Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW), the State Department of Agriculture (DOA), the National Park Service (NPS), the US Fish and Wildlife Service (USFWS), and The Nature Conservancy (TNC) so that we can collectively coordinate our invasive species work (priority species, strategy, methods, data collection, etc.).
2. Provide easy means of information exchange between members and cooperators/partners.
3. Continue to support the strategically oriented fundraising efforts of the statewide Coordinating Group on Alien Pest Species (CGAPS) and increase the level of information exchange between BIISC and CGAPS.
4. Work with funding agencies to identify and obtain financial support for projects. Funded proposals will be monitored. An accurate budget will be kept up-to-date and all expenses and purchases will be tracked. Reports will be submitted as required by the granting agencies.

## **Public Education**

**Objective 1: Develop and distribute information to help the public understand the impacts of invasive species, recognize important invasive species and know how to take appropriate action.**

**Action A:** Full color, laminated Weed Identification Cards containing information on the top 20 target species will be completed and distributed to the public.

**Who:** Kealii Bio (with assistance from Laura Hillis) will complete the creation of the cards. BIISC members will distribute them to appropriate dispersal points where they can be obtained by the public.

**When:** December 31, 2002

**Action B:** BIISC will have a booth at the Big Island Farm Fairs.

**Who:** The effort will be led by Greg Santos in Hilo and Laura Hillis in Kona. They will solicit help in creating and manning the booth from the BIISC membership.

**When:** Both fairs are scheduled for early September.

**Action C:** A full color, letter-fold BIISC brochure showing photos & descriptions of “poster children” and list of horticultural weeds will be created and distributed.

**Who:** Laura Hillis will create the brochure and get it copied/printed.

**When:** September 15, 2002

**Action D:** BIISC will coordinate with the Statewide Public Information Officer (PIO) for press releases and articles.

**Who:** BIISC Chair will coordinate.

**When:** On-going, once the Statewide PIO is hired.

**Objective 2: Educate island residents on species of potential risk, pathways of introduction and movement and the role they play in those pathways so they can make informed choices when purchasing, moving or introducing new species to an area.**

**Action A:** Give educational invasive species presentations to the public at community group meetings, etc.

**Who:** Greg Santos, Kim Tavares, Laura Hillis, and the BIISC Field Crew will make presentations.

**When:** Presentations will be given whenever asked.

**Objective 3: Broadly disseminate control and management information that incorporates safe, effective and environmentally sound materials and methods.**

**Action A:** Fact sheets for priority weeds with control info for homeowners (based on recommendations found in Phil Motooka’s book) will be developed and distributed.

**Who:** Phil Motooka will see through the publication of his book with support from BIISC. Fact sheets will be created by Greg Santos, Laura Hillis and Kim Tavares, and will be reviewed by the Statewide PIO.

**When:** As-needed

**Action B:** Encourage, support and help direct volunteer groups in conducting invasive species control work.

**Who:** Greg Santos will work with Miconia volunteer groups in East Hawaii, Laura Hillis will work with groups in West Hawaii.

**When:** On-going

**Objective 4: Maintain an invasive species Information System (hotline and website) that provides information on detection, distribution and identification of invasive species on the Big Island.**

**Action A:** Materials that are handed out to the public will contain the Hotline number. The Hotline will continue to be maintained.

**Who:** Kim Tavares will take the lead in managing the Hotline. Any staff member in the Hotline office can provide the caller with information about invasive species.

**When:** On-going

**Action B:** The BIISC web page, which is contained within the Hawaiian Ecosystems at Risk (HEAR) web site, will be maintained and it will contain information on the detection, distribution and identification of invasive species on the Big Island.

**Who:** Philip Thomas will manage the web site. Kim Tavares will take the lead in sending updated information to Philip so that it can be added to the web page.

**When:** As-needed

**Legislator Education**

**Objective 1: Contact Big Island Legislators to inform them of critical invasive species issues as agreed by the group.**

**Action A:** Big Island Legislators will be informed of critical invasive species issues as agreed by the group. A BIISC constituency will attend a meeting of legislators.

**Who:** Greg Santos will take the lead in contacting the Legislators. The constituency will be chosen from the BIISC membership.

**When:** Meeting attended by November 30, 2002

**Action B:** Both Big Island and State Legislators will be sent semi-annual programmatic progress reports.

**Who:** Reports will be written by Laura Hillis (Rapid Response Team) and Greg Santos (Operation Miconia), with supporting data provided by Kim Tavares. Greg Santos will distribute the reports to the Legislators.

**When:** August 31, 2002 and February 28, 2003.

**Objective 2: Encourage responsible voting on issues that affect invasive species management.**

**Action A:** BIISC membership will be prompted to provide written testimony to House Representatives and Senators encouraging them to vote for funding and enabling legislation that will benefit invasive species management.

**Who:** ISC members from around the state will send information via the list server. BIISC membership will send written testimony.

**When:** Throughout the legislative session.

**Membership Education**

**Objective 1: Make invasive species control progress summaries available on the web along with interpretive tools to facilitate public use of invasive species data (individual plot locations will not be revealed to protect privacy).**

**Action A:** The Natural Heritage Database will be accessible on-line and will contain information from the Big Island summarizing control progress.

**Who:** Shannon McElvaney will develop the database and web site. Kim Tavares will take the lead in sending Shannon updates of Big Island control and monitoring summaries.

**When:** Big Island information will be available on the database by January 1, 2003.

**Identification & Prevention**

**Objective 1: BIISC will develop and routinely update a list of priority pests targeted for prevention, control or eradication on the Big Island.**

**Action A:** The list of target species will be updated.

**Who:** Laura Hillis and Greg Santos will revise the list. BIISC membership will review and approve it.

**When:** The revised list will be reviewed during the October, 2002 BIISC meeting.

**Objective 2: Entry pathways of invasive species that pose potential significant threats to the economy, environment and quality of life on Hawaii will be identified. Regulatory issues will be addressed.**

**Action A:** Big Island nurseries will be surveyed for the presence of invasive plants.

**Who:** Laura Hillis and Kealii Bio will conduct the surveys.

**When:** Completed by June 30, 2003

**Objective 3: BIISC will participate in the statewide effort to work with local, state and federal agencies and industry representatives to develop a screening method and survey systems that are effective, objective and not unduly restrictive.**

**Action A:** The Weed Risk Assessment system will be implemented in Hawaii.

**Who:** Julie Denslow will oversee the rating of potentially invasive plants. Greg Santos and Laura Hillis will help facilitate the Weed Risk Assessment public meetings in Hilo and Kona, respectively.

**When:** The meetings are scheduled to take place in early October.

**Objective 4: BIISC will encourage self-policing to discourage the sale, importation (intentional or accidental), and distribution of identified invasive species.**

**Action A:** Lists of noxious weeds will be made available for nursery/landscaping industry.

**Who:** Greg Santos will compile the lists and distribute to nurseries.

**When:** Completed by June 30, 2003

**Objective 5: BIISC will support research that seeks to improve our predictive capacity for range occupation and vulnerability of sites to invasions of potential or known invasive species not yet known on the Big Island.**

**Action A:** Data from the Highway Weeds Survey will be analyzed for range occupation of target species and used to predict vulnerability of sites.

**Who:** Kealii Bio will analyze the data.

**When:** Completed by June 30, 2003

### **Early Detection**

**Objective 1: Design, develop and implement an early detection system for priority incipient populations invasive species on Hawaii. Identify potential ranges, inter- and intra-island pathways and introduction points of dissemination, and potential resources impacted for priority incipient species.**

**Action A:** A discussion on the design and development of an early detection strategy/system for priority incipient populations of invasive species on Hawaii will be initiated.

**Who:** Duane Nelson will place the subject on the BIISC meeting agenda.

**When:** The discussion will take place during the October 2002 meeting.

**Action B:** Materials that are handed out to the public will contain the Hotline number. The Hotline will continue to be maintained.

**Who:** Kim Tavares will take the lead in managing the Hotline. Greg Santos and Laura Hillis will coordinate hotline call follow-up with the BIISC field crew or Rapid Response Team.

**When:** As-needed, follow-up will occur less than 1 month from call.

**Action C:** The Highway Weeds Survey will be completed. BIISC crews will conduct surveys for target species on the BIISC list

**Who:** Laura Hillis will assist Kealii Bio in completing the survey.

**When:** Completed by June 30, 2003

**Action D:** Provide assistance to DOA and DLNR in the early detection of targeted incipient species.

**Who:** BIISC crew and Rapid Response Team.

**When:** As needed.

## **Control Invasive Species**

### **Objective 1: Set and meet the control goals for each target species.**

**Action A:** Control goals for each target species will be set out in written management plans. BIISC crews will implement the plans. The following species will be addressed:

1. Miconia (*Miconia calvescens*)
2. Plume Poppy (*Bocconia frutescens*)
3. California Poppy (*Eschscholzia californica*)
4. Pampas Grass (*Cortaderia jubata*, *C. selloana*)
5. Mysore Raspberry (*Rubus niveus*)
6. Cape Pittosporum (*Pittosporum viridiflorum*)
7. Smoke Bush (*Buddleia madagascariensis*)
8. Privet (*Ligustrum sinense*, *L. lucidum*)
9. *Tibouchina longifolia*

Other species such as firethorn (*Pyracantha angustifolia*), Padang cassia (*Cinnamomum burmanii*), raspberry (*Rubus glaucus*), Brazilian jasmine (*Jasminum flumanense*), cat's claw creeper (*Macfadyena unguis-cati*), rubbervine (*Cryptostegia grandiflora*) and Russian thistle (*Salsola kali*) will be addressed as resources allow.

**Who:** Laura Hillis will write the management plans. The BIISC crew and Rapid Response Team will implement the plans.

**When:** Bocconia plan will be completed by October 31, 2002. The rest will be completed by December 31, 2002.

### **Objective 2: Manage the data collected during control efforts.**

**Action A:** Control work will be recorded on datasheets and entered into the database, which will be kept up-to-date.

**Who:** BIISC crews will record daily control and survey work on datasheets. Kim Tavares will take the lead in updating the database.

**When:** On-going.

**Action B:** GIS maps of island-wide survey and control work and species locations will be created and posted on the Internet.

**Who:** Kim Tavares and Laura Hillis will prepare GIS maps. Kim Tavares will send them to Philip Thomas for posting on the Internet.

**When:** On-going. Initial maps will be posted by December 31, 2002.

**Action C:** The BIISC database will be completed. BIISC will support and assist in efforts to develop a statewide database format.

**Who:** Kim Tavares will take the lead in completing the database. Kim Tavares, Laura Hillis, and others, will participate in database discussions with statewide group.

**When:** Statewide meeting held on August 22<sup>nd</sup>. BIISC database completed by June 30, 2003.

### **Objective 3:** Address the invasion of Caribbean frogs on the Big Island.

**Action A:** Participate in the Coqui Frog Working Group (CFWG) meetings and activities.

**Who:** Greg Santos, Kim Tavares and Laura Hillis

**When:** Meetings are held every month.

**Action B:** Help to facilitate public outreach (articles, fact sheets, workshops) on how homeowners can control frogs on their property.

**Who:** Greg Santos, Kim Tavares and Laura Hillis will write articles, fact sheets and hold workshops.

**When:** As-needed, once effective methods have been identified.

**Action C:** Assist the DOA in overseeing efforts to control frogs by directing and supervising a control crew.

**Who:** Greg Santos, Kim Tavares and Laura Hillis will direct control crews.

**When:** As-needed, once adequate funding is secured to hire a dedicated frog control crew.

### **Objective 4:** Increase research, development, application, and monitoring on control agents, especially for established invasive species.

**Action A:** BIISC will support the re-filling of Don Gardener's position.

**Who:** Duane Nelson will lobby the Forest Service regarding the position.

**When:** By November 30, 2002

**Action B:** Assist the DOA in dispersing ivy gourd weevils, Clidemia moths, and/or other biocontrol agents.

**Who:** BIISC crews.

**When:** As-needed.

**Action C:** Strongly encourage the University of Hawaii College of Tropical Agriculture and Human Resources (UH-CTAHR) to fill the Weeds Specialist

**Position after Dr. Phil Motooka's retirement. Local organizations that benefit from this position (e.g. the Farm Bureau) will be encouraged to do the same.**

**Who:** Duane Nelson will lead the effort to re-fill Phil's position.

**When:** Once a firm date for Phil's retirement has been announced.

### **Monitoring**

**Objective 1: Invasive species monitoring methods and protocols that are cost-effective, reliable, and reportable, and generate data that are compatible across agencies and are readily available to BIISC members and partners will be developed and implemented.**

### **Restoration**

**Objective 1: Improve knowledge of direct, indirect and cumulative effects of invasive species on target and non-target species, improve methods for restoration, and improve general implementation of restoration activities.**