

DAVID IGE
GOVERNOR OF HAWAII

JOSH GREEN
LIEUTENANT GOVERNOR



HAWAII INVASIVE SPECIES COUNCIL

1151 PUNCHBOWL ST, #325
HONOLULU, HAWAII 96813

VOTING MEMBERS

SUZANNE CASE
DEPARTMENT OF LAND & NATURAL
RESOURCES

DENISE ALBANO
DEPARTMENT OF AGRICULTURE

KATHLEEN HO D.Env
DEPARTMENT OF HEALTH

NICHOLAS COMERFORD, Ph.D.
UNIVERSITY OF HAWAII

LEO ASUNCION
DEPARTMENT OF BUSINESS, ECONOMIC
DEVELOPMENT & TOURISM

DAVID RODRIGUEZ
DEPARTMENT OF TRANSPORTATION

PUBLIC MEETING NOTICE

Hawai'i Invasive Species Council Resources Working Group August 10, 2021, 9:00 a.m

Considering the evolving COVID-19 situation, protecting the health and welfare of the community is of utmost concern. As such, the meeting was held remotely, with members of the Resources Working Group and FY22 HISC Funding Applicants participating via online meeting software. You can view the entirety of the meeting at: https://www.youtube.com/channel/UCFT6SAASZIUxd_XgZMCjGsQ

1. Call to order at 9:00am by Chair Robert Hauff
2. Introductions
 - a. HISC Working Group members present: Robert Hauff (Chairperson, DNLR DOFAW), Chelsea Arnott (HISC), Janis Matsunaga (HDOA PPC), Darci Oishi (HDOA), Kimberly Fuller (DLNR DAR), Natalie Dunn (DLNR DAR), Leyla Kaufman (HISC), Christy Martin (CGAPS), Justine Nihipali (OPSD-CZM), Mike Melzer (UH CTAHR), Tomo Muranta (HDOT)
 - b. Applicants and HISC support staff present: Chuck Chimera (HISC), Elizabeth Speith (HISC), Andrea Jani (UH), Celia Smith (UH), Steve Hess (USDA), Casper Vanderwoude (HAL), Gracelda Simmons (HDOH Vector Control), Tracy Johnson (USFS), Springer Kaye (BIISC), Orville Baldos (CTAHR), Mark Thorne (CTAHR), JB Friday (CTAHR), Israel Leinbach (USDA), Donna Lee (UH), JC Watson (KMWP), Adam Radford (UH MISC), Cynthia King (DLNR), Ellen Bitume (USFS), Ethel Villalobos (CTAHR), Josh Atwood (DOFAW), Karen Beard (Utah State), Lainie Berry (DLNR), Lori Buchanan (UH MoMISC), Nate Dube (OISC), Roshan Manandhar (CTAHR), Ryan Perroy (UH), Scott Van De Verg (UH), Solimar Carrasquillo (UH), Teya Penniman (UH), Tiffani Keanini (UH KISC), Heidi Cutia (HPU), Lincoln Wells (HDOH), Mark Wright (CTAHR), Jenee Odani (UH)
3. **Presentation:** Overview of the FY22 HISC Funding Process & Evaluations
 - a. Chelsea Arnott gave a presentation on the HISC Resources Working Group
 - b. 5-minute break

4. Discussion: Review of FY22 HISC Applications & Recommended Awards Amounts

- a. The four lowest scoring applications proposed to be dropped from funding discussions.
 - i. Determining if *Toxoplasma gondii* can be detected in invasive terrestrial snails in O‘ahu, Hawai‘i (Stogner, Bishop Museum)- Working group decides to not fund this proposal this funding cycle.
 - ii. Invasive Ecology of American Bullfrogs in Hawaii (Beswick, HPU)- Working group decides to not fund this proposal this funding cycle.
 - iii. Animal Disease Diagnostic Laboratory Support for Shrimp Pathogens (Odani, CTAHR)- After working group suggesting of a need for this work and the applicant saying they could use the reduced amount, this proposal will receive funding.
 - iv. Develop and disseminate an invasive pest outreach program to the Hawaii community (Manandhar, CTHAR)- Working group decides to not fund this proposal this funding cycle.
 - v. Generating needed data to build a risk assessment framework for invasive algae in Hawai‘i. (Smith, UH)- Working group decides to fund project for a lesser amount, due to the low representation of invasive aquatic proposals and the applicant can scale project.
- b. The five least scalable applications (scalability requirements not met by proposed funding amount) proposed to be dropped from funding discussions.
 - i. Evaluating the use of steam as a non-chemical means to control common and invasive weeds in urban areas of Hawaii (Baldos, UH)- project has 50% scalability requirement and only 18% funding available. Working group decides to not fund this proposal this funding cycle.
 - ii. A comprehensive survey for potential local biocontrol agents of coffee leaf rust (Jani, UH)- coffee rust has 50% scalability requirement and only 17% funding available. Working group decides to not fund this proposal this funding cycle.
 - iii. Increasing adoption of surveillance and monitoring for *Varroa destructor* mites in honey bees on varroa-negative and -positive islands (Mogren, UH)- 90% scalability requirement and only 17% funding available. Working group decides to not fund this proposal this funding cycle.
 - iv. Development of mongoose control technology: refining the Goodnature A18 mongoose trap (Works, DLNR DOFAW)- 50% scalability requirement and only 18% funding available. Working group decides to not fund this proposal this funding cycle.
 - v. East Oahu Feral Goat Control and Surveys (Watson, KMWP)- 90% scalability requirement and only 37% funding available. Working group

decides to fund project for a lesser amount, applicant can scale project accordingly.

c. Discussion about highest scoring proposals to lowest ranking proposals.

- i. Coordinating Group on Alien Pest Species (Martin, CGAPS)- Applicant offered to reduce amount of funding to \$38,000. Working group decides to fund project for this amount.
- ii. Hawaii Ant Lab core funds (Vanderwoude, HAL)- The working group decides the project will be fully funded.
- iii. Albizia Community Control Teams and Regional Eradication Efforts in the Ko'olau (Watson, KMWP)- The working group suggests funding this project at a reduced amount.
- iv. Maui/Molokai Invasive Species Committees - Detection and Control of Invasive Species in Maui County (Radford, MISC/MoMISC)- The working group suggests reducing the amount funded to the same amount as last year, which would be a reduction of 100,000 across all budgets. The applicant offers to cut 75,000 (50,000 reduction from this application). The working group suggests funding this project at the reduced amount.
- v. Maui Invasive Species Committee (MISC) - Outreach and Education in Maui County (Radford, MISC/MoMISC Outreach)- Supports 2.5 staff. The working group suggests funding this project at a reduced amount.
- vi. 5-minute break
- vii. Public Engagement in Invasive Species Control on the Island of Hawaii (Kaye, BIISC)- The working group suggests funding this project at a reduced amount.
- viii. OISC's Early Detection & Rapid Response on O'ahu (Dube, OISC)- The working group suggests funding this project at a reduced amount.
- ix. OISC's Landscape Level Control of High-Impact Invasive Species on O'ahu (Dube, OISC)- The working group suggests funding this project at a reduced amount.
- x. Kauai Invasive Species Committee Early Detection, Rapid Response, and Control (Keanini, KISC)- The working group suggests funding this project at a reduced amount.
- xi. OISC's Invasive Species Outreach & Education on Oahu (Dube, OISC)- The working group suggests funding this project at a reduced amount and note the minimum required amount according to the applicant to keep current minimum staffing.
- xii. Detection and Control of Invasive Species on Hawai'i Island (Kay, BIISC)- The working group suggests funding this project at a reduced amount.

- xiii. Hawaii Ballast Water and Biofouling (Dunn, DLNR DAR)- The working group will increase suggested adjusted for score funding level and fund at that amount.
- xiv. Public Outreach and Education on Kauai (Keanini, KISC)- The working group suggests funding this project at a reduced amount, which is supplemented from the HISC support budget.
- xv. Mamalu Poepoe: Invasive Species Surveillance at ports of entry (Kaufman, HISC)- The working group suggests funding this project at a reduced amount.
- xvi. Field Trials of Mongoose Toxicant Efficacy Under EPA Experimental Use Permit (Hess, USDA)- The working group suggests funding this project at a reduced amount.
- xvii. Lunch Break- 12:15-12:45
- xviii. Little Fire Ants early detection and response on Oahu (Vanderwoude, HAL)- After further discussion, the working group suggests the amount for this proposal will be zeroed out in favor of fully funding the statewide HAL proposal.
- xix. Tibouchina Control and T. Ovatus Disbursal in the Ko'olau (Watson, KMWP)- Applicant suggested the proposal funding be rounded down to \$40,000. The working group suggests funding this project at a reduced amount.
- xx. Outreach and extension for management of Rapid Ohia Death on Hawaii Island (Friday, CTAHR)- The working group suggests funding this project at a reduced amount.
- xxi. Detection and Management Strategies for the Control of Prosapia bicincta (Twolined Spittlebug) in Hawaii (Thorne, CTAHR)- Testimony submitted from the Cattleman's Association providing support for this proposal. The working group suggests funding this project at a reduced amount.
- xxii. Birds, Not Mosquitoes: Landscape-Scale Mosquito Control (Penniman, UH)- Applicant offered to decrease funding to 30,500. The working group suggests funding this project at a reduced amount.
- xxiii. Kauai Rapid Ohia Death Response (Keanini, KISC)- The working group suggests funding this project at a reduced amount.
- xxiv. Detection & Invasive Potential and population dynamics of Arcte coerula (Lepidoptera, Noctuidae), a New Pest of Māmaki in Hawaii. (Wright, CTAHR)- The working group suggests funding this project at a reduced amount.
- xxv. Natural enemies for biocontrol of albizia (Johnson, USFS)- Tracy Johnson addressed all of his biocontrol projects together. This applicant's biocontrol proposals are considered for funding together. The working group suggests funding this project at a reduced amount.

- xxvi. Biocontrol of melastomes and other high priority weeds (Johnson, USFS)- See notes on other Johnson biocontrol applications. Applicant offered to reduce funding request. The working group suggests funding this project at a reduced amount.
- xxvii. Hawaii Island Albizia Hazard Mitigation Plan Project Thirteen: Kahakai Boulevard (Kaye, BIISC)- The working group suggests funding this project at a reduced amount.
- xxviii. Mosquito surveys and larval control on Kauai to further landscape-level mosquito control and protect endangered honeycreepers (Berry, DLNR)- The working group suggests funding this project at a reduced amount.
- xxix. Beekeeper organization and cooperation: Our "best shot" against Africanized Honeybees (Villalobos, CTAHR)- The working group suggests funding this project at a reduced amount.
- xxx. Biocontrol of invasive Rubus (Johnson, USFS)- See other Johnson biocontrol applications above. The working group suggests funding this project at a reduced amount.
- xxxi. Detection and Control of Rapid 'Ōhi'a Death on Hawai'i Island (Kaye, BIISC)- The working group suggests funding this project at a reduced amount.
- xxxii. Eradication Of Devil Weed to Protect Agriculture On Hawai'i Island (Kaye, BIISC)- The applicant requested that the amount would be increased to \$25,000 to match county funds. The working group suggests funding this project at a reduced amount, \$25,000 minimum.
- xxxiii. Investigating management and competitive interactions between distinct yet related invasive algal species *Avrainvillea erecta* and *Avrainvillea lacerata* at different depth levels.(Smith, UH)- The working group suggests funding this project at a reduced amount.
- xxxiv. Is citric acid still an effective way to control coqui frogs? (Beard, Utah State)- The working group is not able to fund this project during this funding cycle. The applicant is encouraged to apply again, in coordination with groups currently controlling coqui in Hawaii.
- xxxv. Estimating the impacts of Hull Biofouling and in-water cleaning: an economic approach (Lee, UH)- The applicant requests a minimum of \$50,000 for the two economic analysis projects. The working group is not able to fund this project during this funding cycle.
- xxxvi. Detector canine transport (Melzer, UH CTAHR)- Applicant withdraws the proposal.
- xxxvii. Project Support for DLNR and DOH Implementation of Incompatible Insect Technique using Wolbachia for control of three mosquito species (King, DLNR)- After discussion the working group suggests funding this project at a reduced amount.

- xxxviii. Distribution of Strawberry Guava Biocontrol: Creating Reservoirs of Tectococcus (Tectococcus ovatus) (Cullison, DLNR)- The working group is not able to fund this project during this funding cycle.
 - xxxix. An economic analysis of LFA eradication on Maui (Lee, UH)- After discussion the working group suggests funding this project at a reduced amount.
 - xl. Environmental Assessment for the Suppression of Aedes aegypti, Aedes albopictus, and Culex quinquefasciatus Mosquitoes in Hawaii using Wolbachia-based Incompatible Insect Technique (Simmons, HDOH Vector Control)- After discussion the working group suggests funding this project at a reduced amount, 50% of initial request.
 - xli. Developing a Landscape-scale Aerial Deployment Method for Biocontrol of Strawberry Guava (Perroy, UH)- The applicant offered to withdraw the proposal. The working group is not able to fund this project during this funding cycle.
 - xlii. Investigating infection levels and population dynamics of wild rats (Rattus spp.) to inform management and surveillance of rat lungworm in Hawai'i (Leinbach, USDA)- After discussion the working group suggests funding this project at a reduced amount.
 - xliii. Spread and impact of Orasema minutissima, a potential adventive biological control agent of LFA (Bitume, USFS)- The working group is not able to fund this project during this funding cycle. Applicant is asked to work with HDOA for future funding requests.
5. Approval of HISC FY22 Recommended Budget
- a. Christy Martin moves to approve the recommended budget with small adjustments made (\$500 or less) for budget balancing purposes.
 - b. Justine Nihipali seconded the motion.
 - c. Yea votes: Christy Martin, Justine Nihipali, Chelsea Arnott, Mike Melzer, Darcy Oishi, Janis Matsunaga, Leyla Kauffman, Tomo Muranta, Kim Fuller, Nathalie Dunn, Robert Hauff. The motion carries. Nay votes: 0
6. Public Comments
- a. No comments via the public viewing on YouTube livestream.
 - b. Discussion about the scoring process for HISC funds applications will be presented by Chelsea in a separate conversation or meeting to interested parties.
7. Adjournment
- a. Motion to adjourn at 5:03 pm by Darcy Oishi
 - b. Seconded by Christy Martin.
 - c. Adjournment at 5:03 pm by Chair Robert Hauff.

For more information, contact:

Leyla Kaufman, Māmalu Poepoe Project Coordinator: leyla [at] hawaii.edu

Chelsea Arnott, Planner: Chelsea.L.Arnott [at] hawaii.gov

Elizabeth Speith, 643pest.org Report Facilitator: speith [at] hawaii.edu

Chuck Chimera, HPWRA, chimera [at] hawaii.edu

Table 1: List of FY22 HISC Applications and Requested Amount. Note: Programs are defined by requests over \$300k

RECOMMENDED AWARD AMOUNTS FOR THE FY22 HISC BUDGET

Rank	Abbr Title	Request (x)	Points Awarded	Recommended Award Amt
1	Martin CGAPS	\$62,000	66	\$38,000
2	Vanderwoude HAL	\$296,581	60	\$296,581
3	Watson KMWP Albizia	\$170,899	54	\$68,000
4	Radford MISC/MoMISC	\$1,418,516	54	\$770,423
5	Radford MISC Outreach	\$197,421	54	\$89,183
6	Kaye BIISC Public Engagement	\$293,262	53	\$196,472
7	Dube OISC EDRR	\$242,361	53	\$137,578
8	Dube OISC Large-scale Control	\$841,797	51	\$459,820
9	Keanini KISC Detection & Control	\$823,843	50	\$506,189
10	Dube OISC Outreach	\$174,983	50	\$93,708
11	Kaye BIISC Detect & Cntrl	\$479,903	47	\$241,580
12	Dunn Ballast Water & Biofouling	\$90,560	47	\$80,000
13	Keanini KISC Outreach	\$156,359	47	\$78,710
14	Kaufman Airport Biosecurity	\$299,000	46	\$147,312
15	Hess Mongoose Toxicant	\$65,960	46	\$32,497
16	Vanderwoude Oahu LFA	\$34,243	43	\$0
17	Watson KMWP Tibher & Biocontrol	\$91,676	42	\$40,000
18	Friday ROD Extension	\$75,955.97	42	\$30,000
19	Thorne Two Line Spittle Bug	\$421,322	42	\$189,528
20	Penniman Mosquitos	\$117,618.47	40	\$30,500
21	Keanini KISC ROD	\$106,303	39	\$44,404

22	Watson KMWP Goats	\$15,383	34	\$5,602
23	Wright Mamaki Pest	\$41,135	32	\$14,098
24	Johnson Albizia Biocontrol	\$191,800	32	\$65,737
25	Johnson Melastome Biocontrol	\$185,680	30	\$60,000
26	Kaye BIISC Albizia	\$281,448	28	\$84,405
27	Berry Mosquito Surveys	\$102,182	28	\$30,644
28	Villalobos AHB Outreach	\$91,000	28	\$25,000
29	Johnson Rubus Biocontrol	\$112,000	28	\$25,000
30	Kaye BIISC ROD	\$205,616	26	\$57,259
31	Kaye BIISC Devil Weed	\$55,862	26	\$25,000
32	Smith Invasive Algae Interactions	\$65,379	26	\$18,206
33	Beard Coqui Control	\$35,495.17	25	\$0
34	Lee CBA Biofouling	\$64,845	22	\$0
35	Melzer Canine Transport	\$25,000	21	\$0
36	King Mosquitos	\$90,794	21	\$49,551
37	Cullison Psicat Biocontrol Distribution	\$100,000	20	\$0
38	Lee CBA LFA	\$64,845	20	\$29,000
39	Simmons Mosquito Suppression	\$160,000	19	\$80,000
40	Perroy Aerial Biocontrol Distrib.	\$52,437	19	\$0
41	Leinbach Rat lungworm in Rat	\$89,749	19	\$18,000
42	Works Mongoose Traps	\$50,000	17	\$0
43	Mogren Varroa Mite	\$25,186.34	16	\$0
44	Jani Coffee Leaf Rust	\$56,914	16	\$0
45	Baldos Steam Control	\$50,000	15	\$0
46	Bitume LFA Biocontrol	\$74,800	15	\$0
47	Smith Algae Risk Assessment	\$234,598	11	\$27,639
48	Manandhar Outreach	\$13,750	10	\$0
49	Odani Shrimp Pathogen	\$119,026	9	\$11,473
50	Beswick Bullfrogs	\$4,963	6	\$0
51	Stogner toxo transmission	\$7,298.50	6	\$0