

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 and Natural Resources

Phyllis Shimabukuro-Geiser
Department of Agriculture

Mary Alice Evans
Department of Business, Economic
Development & Tourism, Office of Planning

Keith Kawaoka, D.Env.
Department of Health

David Rodrigues
Department of Transportation

Nicholas Comerford, Ph.D.
University of Hawaii

MEETING NOTICE

University of Hawaii at Manoa
St. John 307

Tuesday, 2P
July 23, 2019

Research & Technology Working Group
of the
Hawaii Invasive Species Council

AGENDA

1. Call to order: *by Chair, Mike Melzer (PEPS)*

Introductions:

- a. **On-line:** *Springer Kaye (BIISC), Shelley Dayman (Wildlife Biologist)*
- b. **In-person:** *Randy Bartlett (HISC), Chelsea Arnott (HISC), Celia Smith (Botany), Mason Russo (PEPS), Scott Van DeBerg (Botany), Paul Krushelnycky (PEPS), Zhiqiang Cheng, Daniel Jenkins (MMBS)*

2. Announcements:

- a. **Review past meeting notes at:**

<http://dlnr.hawaii.gov/hisc/meetings/wg/research/>

3. Action Items: *(see table & **hi-lighted** items below)*

a. HIBP Progress Updates:

1. PrePro1.2: Risk Assessments

2. BorPro2.4: Biofouling Technologies

3. PosTifs1.13: Extension Agents/Specialist/Researcher

- a. Hired 11 extension agents. Some getting into invasive species and biosecurity but not necessarily teaching or classes. Some food safety courses that are going in the fourth year. Roshan is focusing on invasive species. Having an invasive species conference in August. New Urban Entomologist just started with CTAHR - mostly research teaching. Assistant faculty from Japan that will be teaching general entomology. Some retirement, 2 folks that may be retiring soon. Lot's of resources coming into the department this.*

4. PosTifs1.14: Agriculture Diagnosticians

- a. Ag Diagnostic Service center has had some change in leadership. Ray Uchida is about to retire. Just hired Scott "?" - came in from HDOA Animal Health/waste management where he was an administrator. New to Ag but will give him some support and get him up to speed.*

5. PwsPro3.8: UH Biosecurity Instruction

a.

6. PwsTifs1.7: UH Biosecurity Instructor/Researcher

- a. Celia Smith: No aquatic biologists or extension in the marine realm. Asking for positions in their biological sciences package. Mike - it's not necessarily the Dean that is pushing the request its the stakeholders. For Ag it was industry that made the push and the Leg listens to industry. Need to get the marine stakeholders on board like snorkelers, etc... Not a lot of people working on invasive algae in Hawaii and there are a lot of challenges and not a lot of capacity. Possible site visits for aquatics issues.*

4. Project Updates:

- a. Biocontrol:** *Tracy Johnson: Not present in this call*

- i. **Melastome:**
 - ii. **Himalayan Ginger:**
 - iii. **Albizia:**
- b. **CRB:**
 - i. *Michael Melzer:*
 - 1. *Maintain CRB Colony for research purposes (Gilmore Hall, also for outreach purposes). Getting much more efficient with the colony and reproduction. A lot*
 - a. *Pheromone research*
 - b. *Colony doing well. Growing population. Shipping to Georgia for detector dog program testing by USDA APHIS. Dogs should be able to distinguish CRB from other beetles like oriental flower beetle*
 - 2. *Genetic pesticide research (RNAi)*
 - a. *Review paper in "Entomology journal" (need to check on that with Mike). Looked at 2 dozens genes and found that 5 genes that work well all life stages.*
 - b. *Looking for an oral delivery system.*
 - c. *Model for large insect RNAi research.*
 - 3. *Smart trap development (Dan Jenkins)*
 - a. *Trying to put little cameras on the CRB for survey/monitoring. \$2 microsensor. Shooting for <\$50 system. Ca \$150k to place in 3000+ traps on Oahu.*
 - b. *Possibly utilize the technology for the Queensland Longhorn Beetle that Big Island recently detectly. First looking for pheromone.*
 - ii. *Zhiqiang Cheng:*
 - 1. *Chemical & Mechanical control: looking into grub killers. Have found a few that are working.*

- a. *ID several systemic insecticides. Testing for 6 months. Good mortality, even though low population to test.*
- b. *Biological Controls: (Mason Russo - grad Student)*
 - i. *Nematodes: in Ewa Beach*
 - 1. *12-18% mortality on 1st trial.*
 - ii. *Fungal trials from several soil sites on Oahu.*
 - 1. *Koko Head*
 - 2. *Lyon Arboretum*
 - 3. *Testing several strains on Oriental Flower Beetles to see if effective on CRB also.*

c. LFA:

- i. *Cas Vanderwoude/Michelle Montgomery: **Not present***
 - 1. LFA update:**
- ii. *Paul Krushelnycky:*
 - 1. Hydrogel Ant Baits: Quantifying the amount of risk to non-targets - Brown Bag 7/23**
 - a. *HAL duplicating some trails on LFA. Not sure if they'll have time to do the efficacy trials.*
 - b. 3 different granule types:**
 - i. *Algal beads*
 - ii. *Poly beads*
 - iii. *Dehydrated Vegetable Protein*
 - c. 3 different insecticides:**
 - i. *Indoxocarb*
 - ii. *Di*
 - iii. *T*
 - d. Next steps: more efficacy trials. Looking for any translocation of active ingredients.**

- i. **Cheng** - *interested in using bait for ant control on golf courses along with controlling fruit flies on golf courses*

d. HBT: James Leary/Dan Jenkins

i. **Miconia:**

ii. **Albizia:**

1. Developing versatile system to deploy different biological control. Ben Hoffman is working on UAS for ant control in Australia. Working on developing something that can deliver a higher payload.
2. Dan - looking for some insight into systems that are being used. Ryan Parroy and other folks that could be helpful for knowing how to navigate regulations and done the research on what systems can carry what.

e. Rat Lungworm:

i. *Norine Yeung:*

ii. *Chris Niebuhr:*

f. Mongooses: Shane Siers:

g. Spittlebug: Mark Thorne:

5. *If your interested, you can look at the newly posted reports on FY19 on hisc website.*

- a. *Citrus known host for Queensland Longhorn Beetle. BIISC starting research on biology of pest and understanding more. Would love help from this group that has the expertise. Mike happy to help bc citrus is one of the crops he works on. What's the damage? Large larvae that feed on the tree and eventually kill it. Member of the citrus board. Mike will help. Citrus research board does fund other projects and might be interested in this.*
- b. *No real regulation not to move infested plants with Queensland Longhorn Beetle. Anything to be done for this? HDOA recommends not to move plants in their pest report. Citizens are having no problem collecting and*

turning the in beetles. Seem to be nocturnal and attracted to incandescent light.

6. Comments: *Please feel free to leave any relevant comments here for consideration by the R&TWG.*

a.

7. Next Meeting: *FY20 Q2/3 TBD*

a. Resources Working Group Meeting on Friday, August 2, 9a-430p

b. Hawaii Invasive Species Council Meeting on Friday, August 30, 1-3p

8. Adjournment: 3:17p

Online Participation Instructions:

Tuesday, July 23, 2019 | 2:00 pm Hawaii Time (GMT-10:00) | 2 hours

Meeting number: **743 287 696**

Meeting password: **HI\$Cwg19**

Meeting link: [JOIN THE MEETING](#) <==click here

Audio connection:

1-877-787-0206 (US) Call-in toll-free number (Verizon)

1-877-787-0206 (US) Call-in number (Verizon)

Attendee access code: 499 006 3

For information, contact:

HISC Support staff: 1151 Punchbowl St, #325, Honolulu, HI 96813; Fax: 587-0160

Joshua Atwood, Ph.D., HISC Program Supervisor: 808.587.4154 or Joshua.P.Atwood@hawaii.gov

Randy Bartlett, HISC Interagency Coordinator: 808.341.3042 or Randal.T.Bartlett@hawaii.gov

Leyla Kaufman, Ph.D., Mamalu Poepoe Coordinator: 808.956.2450 or leyla@hawaii.edu

Elizabeth Speith, 643pest.org Report Facilitator: 808.264.4757 or speith@hawaii.edu

Chelsea Arnott, HISC Planner: 808. or chelsea.l.arnott.researcher@hawaii.gov

R&T Working Group Action Items Tracking

| Date Started | Action Item | Personnel | Status |
|--------------|---|-----------|-------------|
| 3/9/18 | Josh will contact toxicologists to see if they would work with James on a position paper about glyphosate. Would be a review of the Cal-IPC paper to see if they're comfortable with it, then the HI product would be a | Josh | In progress |

| | | | |
|--------|--|-------|-------------|
| | <p>simple statement on the value of glyphosate in management in Hawaii.</p> <p>6/22: Monsanto bought by Syngenta and will no longer be a brand-name. Need for talking points re facts on pesticide use, etc.</p> <ul style="list-style-type: none"> - Josh to search thru bills at the beginning of next Legislative session for related red flag language. - Begin process to create white-paper on specific chemicals; including environmental fate & health issues/toxicology. | | |
| 3/9/18 | <p>PrePro1.2: Risk Assessments</p> <p>What assistance can R&T WG provide to HDOA on conducting risk assessments (a major component of the HIBP)?</p> <p>ACTION: Josh to approach HDOA and ask what data they need help with, rather than us running with it and then presenting the results later. When HDOA and researchers are talking to one another about the types of assessments that need to be done, we can turn that into funding proposals to get the work done.</p> <p>6/22: Josh asked HDOA. They're fine for now. Will be gathering data via their new e-manifest system to be online by the end of the year. Need to ask at next Prevention WG meeting re need for data analyst.</p> | Josh | Completed |
| 3/9/18 | <p>BorPro2.4: Biofouling technologies</p> <p>Working on this. HISC Reso 18-1, resos in 2018 legislature.</p> <p>ACTION: Jules working on Hawaii joining the Alliance for Coastal Technologies evaluations of technology.</p> <p>6/22: HISC resolution passed. Christy Martin worked on a House Concurrent Resolution 130 which passed in the 2018 Legislative session.</p> | Jules | In progress |

| | | | |
|--------|---|-----------|-------------|
| | 11/9: Christy Martin & Jules Kuo went to CA to observe & learn about existing & new technologies. | | |
| 3/9/18 | <p>PosTifs1.13 & 1.14, PwsPro3.8, PwsTifs1.7: CTAHR extension agents and faculty that teach invasives/biosecurity issues</p> <p>11/9: Mike Melzer: In dire need of Ag. Diagnosticians (lost Scott Nelson, Plant Pathology).</p> <p>James Leary: Need to maintain a Weed Science capacity after that guy Leary leaves. Need to emphasize CTAHR's position in the Biosecurity scheme of things as a whole with Kelvin Sewake. Need to invest in a Forest Pathologist to respond to future ROD-like outbreaks.</p> <p><i>ACTION: Dean Comerford is prioritizing new positions now. Diagnostics is high on this list. Support for these hires from CTAHR staff on the call. HISC staff relayed the interest in these positions in their initial meeting with Dean Comerford.</i></p> <p>6/22: New extension agent on Kaua'i (entomologist) Roshan</p> <p>7/23: Hired new director of Diagnostics Services Center: Scott ?</p> | Mike/Josh | In progress |
| | | | |