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GOVERNOR OF HAWAII



**STATE OF HAWAII**  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF FORESTRY AND WILDLIFE  
1151 PUNCHBOWL STREET, ROOM 325  
HONOLULU, HAWAII 96813

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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

## ENDANGERED SPECIES RECOVERY COMMITTEE (ESRC) MEETING

**DATE:** March 5, 2020  
**TIME:** 9:00 AM – 4:00 PM  
**PLACE:** Executive Dining Room, University of Hawai‘i Campus Center, 2465 Campus Road, Honolulu, HI 96822

**DATE:** March 6, 2020  
**TIME:** 9:00 AM – 4:00 PM  
**PLACE:** Rooms CC307 & CC308 (combined), University of Hawai‘i Campus Center, 2465 Campus Road, Honolulu, HI 96822

**NOTICE:** All presentation times are approximate. Please arrive at University of Hawai‘i early to allow time for parking and walking to Campus Center. The parking structures may be full by 8:30 am. There will be signs in Campus Center guiding you to the Executive Dining Room on March 5 and Rooms CC307 & CC308 (upstairs) on March 6.

Parking Structure 1 (on map) is the closest parking structure. To enter the structure from Dole Street, turn onto Lower Campus Road. You will see a guard shack and pay a flat rate of \$5 for the day. Once past the guard shack, make the first left to get into the structure. Find the elevators and go up to the top level. Head mauka (towards the mountains) and cross Dole Street. Follow the Legacy Path to Campus Center.

If Parking Structure 1 is full, you can drive east on Dole Street to Parking Structure 2 (on map), also a \$5 flat rate for the day. Note Parking Structure 2 is an approximately 15-minute walk to Campus Center.

If you plan to attend only parts of the workshop, there are small visitor parking lots closer to Campus Center that charge \$4 an hour.

## AGENDA

### **Hui ‘Ōpe‘ape‘a: Hawaiian Hoary Bat Workshop 2020**

**MARCH 5, 2020**

- ITEM 1. Call to order. 9:00 AM – 9:15 AM.**  
Introduction of Committee members and staff.  
Format and goals of the workshop.
- ITEM 2. Regulatory status of the Hawaiian Hoary Bat. 9:15 AM – 9:30 AM.**  
Incidental Take Licenses and permitted take to date: Lauren Taylor, Division of Forestry and Wildlife
- ITEM 3. Species ecology and current knowledge of the Hawaiian Hoary Bat. 9:30 AM – 10:00 AM.**
- Biology and current taxonomy of the bat: Frank Bonaccorso, U.S. Geological Survey retired
  - Diet and foraging behavior: Dave Johnston, H.T. Harvey & Associates
- ITEM 4. Updates on ongoing research. 10:00 AM – 2:45 PM.**
- Hoary bat ecology project: Marcos Gorresen, U.S. Geological Survey-Hawai‘i Cooperative Studies Unit
  - Roost metrics and surveys, and fidelity: Kristina Montoya-Aiona, U.S. Geological Survey
  - Population genetics and genetic sexing: Corinna Pinzari, U.S. Geological Survey-Hawai‘i Cooperative Studies Unit
  - Diet and metabarcoding: Corinna Pinzari, U.S. Geological Survey-Hawai‘i Cooperative Studies Unit
  - Maui habitat use and foraging ecology: Dave Johnston, H.T. Harvey & Associates
  - Leeward Haleakalā occupancy monitoring study: Joel Thompson, Western EcoSystems Technology, Inc.
  - O‘ahu bat occupancy and distribution study: Joel Thompson, Western EcoSystems Technology, Inc.
- ITEM 5. Using a common habitat base. 2:45 PM – 3:00 PM.**  
Designing studies to be comparable: Jim Jacobi, U.S. Geological Survey
- ITEM 6. Bats and wind energy. 3:00 PM – 3:30 PM.**  
Synthesis of 15 years of research on bats and renewable energy: Michael Schirmacher and Kristin Jonasson, Bat Conservation International
- ITEM 7. Wrap-up discussion. 3:30 PM – 4:00 PM.**  
Overview of workshop presentations.

## AGENDA

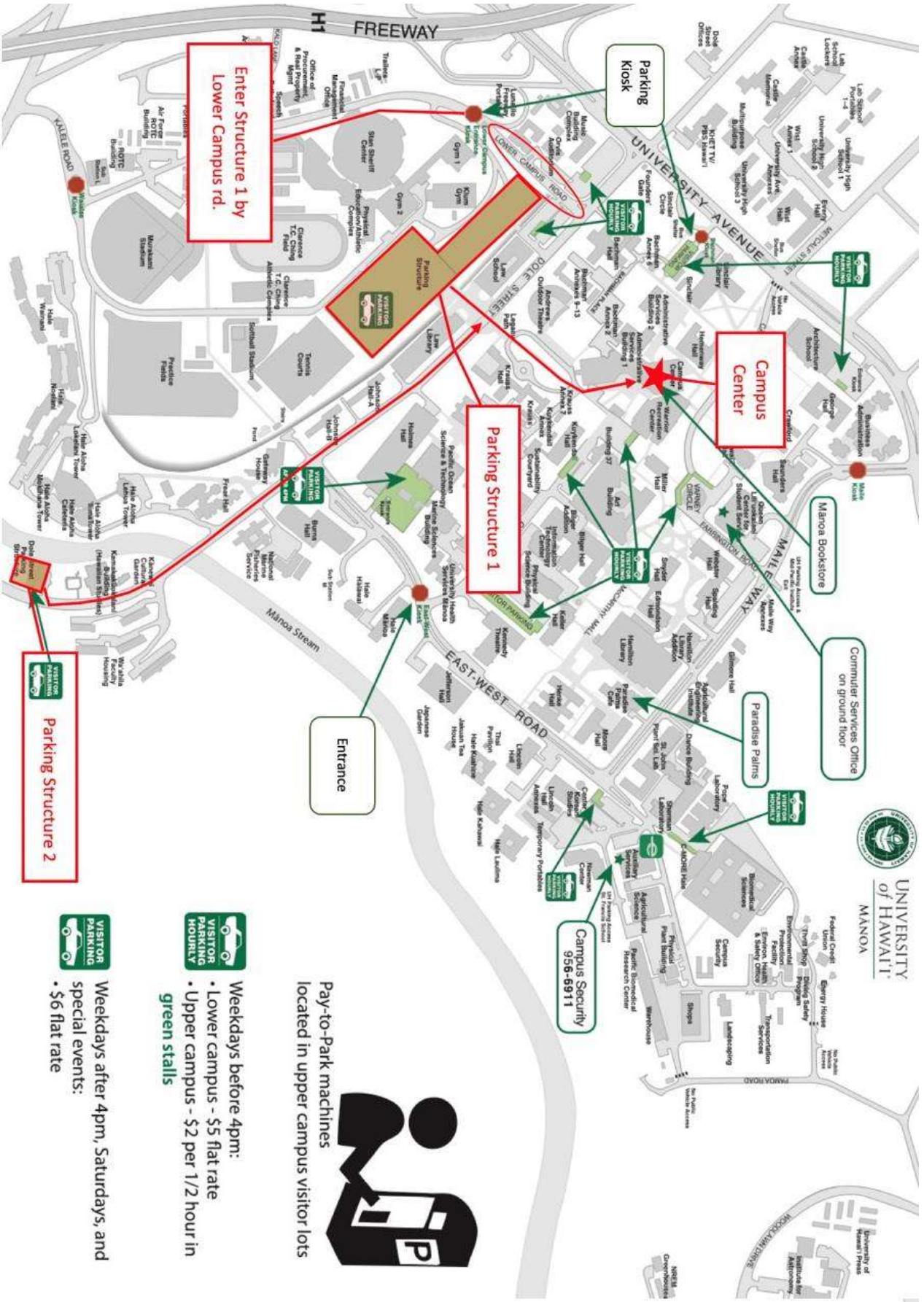
### **Hui ‘Ōpe‘ape‘a: Hawaiian Hoary Bat Workshop 2020**

#### MARCH 6, 2020

- ITEM 8: Monitoring. 9:00 AM- 11:00 AM.**
- Identifying and monitoring insect prey of bats: Bob Peck, U.S. Geological Survey-Hawai‘i Cooperative Studies Unit
  - Reforestation and habitat enhancement, and insect prey availability: Marcos Gorresen, U.S. Geological Survey-Hawai‘i Cooperative Studies Unit
  - Video and acoustic monitoring of bat activity and behavior at wind turbines on Maui: Marcos Gorresen, U.S. Geological Survey-Hawai‘i Cooperative Studies Unit
  - Thermal imaging software: Michael Schirmacher and Kristin Jonasson, Bat Conservation International
  - Acoustic monitoring data at Hawai‘i wind farms, patterns, and regression analysis: Matt Stelmach, TetraTech
  - Implications of reduced echolocation: Ted Weller, Forest Service Pacific Southwest Research Station
  - Bat Acoustic Monitoring Visualization Tool: Ted Weller, Forest Service Pacific Southwest Research Station
- ITEM 9: Bat take avoidance and minimization at wind farms. 12:00 PM – 1:00 PM.**
- Acoustic deterrents: John Ugland, NRG Systems
  - Ultraviolet light deterrents: Marcos Gorresen, U.S. Geological Survey-Hawai‘i Cooperative Studies Unit
  - Low wind speed curtailment: Loyal Mehrhoff, ESRC
- ITEM 10: Modeling. 1:00 PM – 2:00 PM.**
- Evidence of Absence model: Manuela Huso, USGS Forest and Rangeland Ecosystem Science Center
  - Vortex population modeling exercise: Theresa Menard, ESRC Bat Task Force
- ITEM 11: Draft Hawaiian Hoary Bat Guidance Document 2020 update. 2:00 PM – 3:30 PM.**
- Overview of changes from the 2015 edition: Loyal Mehrhoff, ESRC
  - Bat Task Force panel discussion and request for comments on the draft Hawaiian Hoary Bat Guidance Document 2020 update.
- ITEM 12: Wrap-up discussion. 3:30 PM – 4:00 PM.**  
Summary of workshop.
- ITEM 13: Adjournment.**

Public may testify on each meeting agenda item. Public may request meeting materials by contacting Lauren Taylor at [dofaw.hcp@hawaii.gov](mailto:dofaw.hcp@hawaii.gov) or (808) 587-4187. A paper copy of the meeting materials are also available for public review at the Division of Forestry and Wildlife, 1151 Punchbowl Street, Room 325, Honolulu, Hawai'i, 96813.

If you desire to attend the meeting and require auxiliary aids (taped materials or sign language interpreter) please request assistance five business days prior to the meeting by calling or writing the Division of Forestry and Wildlife at (808) 587-0166; 1151 Punchbowl Street, Room 325, Honolulu, Hawai'i, 96813.



Pay-to-Park machines located in upper campus visitor lots

- Weekdays before 4pm:
- Lower campus - \$5 flat rate
  - Upper campus - \$2 per 1/2 hour in green stalls

- Weekdays after 4pm, Saturdays, and special events:
- \$6 flat rate

