

Quorum Requirement = 11

Animal Care & Use Committee  
August 19, 2021

**Members Present:**

[REDACTED]

**Members Absent:**

[REDACTED]

**Guests Present:**

\*Denise Yee, Research Compliance Staff, \*\*Ms. Diana Talerico Blanco,  
Program Manager, Animal Welfare and Biosafety Programs  
\*In person, \*\*via teleconference

**A. Call to Order:**

A quorum of members was present when the IACUC meeting was called to order by Vice Chairman Dr. Jenée S. Odani, in the Office of Research Services Honu Conference Room via teleconference at 1:35 PM. The first order of business was the approval of the July 15, 2021 IACUC meeting notes. The committee unanimously voted to approve the meeting notes.

**B. New Business:**

**1. Semiannual Facility Inspections**

The committee approved the subcommittee reports for the following facilities:

- Institute for Biogenesis Research
- [REDACTED] Building AVS Vivarium
- [REDACTED] Lab [REDACTED]
- Woodlawn SAF
- Windward Community College Veterinary Technician Program

A majority of members voted for approval, disapproval, or abstention (Members N, J, and P abstained). No minority opinions were noted or filed as of this meeting.

**C. Old Business: None**

**D. Other Business:**

**1. Veterinary Report**

**a. Veterinary Inspections (no concerns)**

- IBR
- Woodlawn SAF
- [REDACTED] Lab [REDACTED]

**b. Mortalities reported**

- July 23, 2021, an 8 day old broiler chick died – no significant gross findings found during the necropsy. The committee was informed that a certain number of chick mortalities can occur during the early brooding period. The brooding area and chicks were re-checked on July 29, 2021 and no additional morbidities or mortalities were observed.
- August 11, 2021, a 26 day old broiler chick died. Changes consistent with trauma occurring with 48 hours of death and signs of dehydration were observed upon necropsy. Chicks were re-inspected afterwards and everything was found to be in order.

**c. Mouse Pups in Soiled Cages**

- July 22, 2021, live mouse pups were found among debris in 2 soiled cages in Manoa's Biomed cagewash room. Investigators were reminded to carefully check cages before leaving them for AVS to wash.

**d. Hawaiian Monk Seal (HMS) Transfer**

- The Waikiki Aquarium (WAQ) resident HMS will depart on September 01, 2021 for UC Santa Cruz Long Marine Lab, arriving the following day. The AVS staff vet is in the process of obtaining pre-travel blood samples. NOAA sponsored a meeting on August 12, 2021 to prepare for media relations for the transfer.

**2. Privately Owned Animals on Campus Policy**

- The committee unanimously voted to approve the *Privately Owned Animals on Campus Policy* effective once the amendment to the Assurance is approved. The committee briefly discussed the definition of privately owned animals and the pre-vet club's (PVC) plans to care for feral cats. The committee was informed that if the PVC decides to care for feral cats they will participate in the sanctioned UHM Feral Cat Management Program.
- The Animal Welfare and Biosafety Program Manager updated the committee on the status of 1) the amendment to the Assurance (pending) and 2) an IACUC feral cat policy in conjunction with Facilities and Grounds, which also entails updating the website for the UH Feral Cat Management Program. Members F and J will work with the Facilities Director.

**3. Incident Report**

- The committee was informed of a break-in at the Pacific Aquaculture and Coastal Resource Center on August 2, 2021. A tank containing tilapia had been punctured and an unknown number of fish stolen. The water did not drain completely and the remaining fish were unharmed. The facility suspects homeless individuals in the area are responsible.

**4. Consistency of Euthanasia Methods**

- The committee further discussed euthanasia methods for protocols 3374 and 3376 that were previously not approved. The committee unanimously voted to approve protocol 3374. Clarification on the firearm used in 3376 was needed. It was suggested that some type of guidelines be written for management protocols that use firearms and/or an update be made to the protocol form to prompt users for details when they indicate the use of firearms.

**E. Review of New Protocols, Renewals, and Revisions:**

**Description of Protocols – Full Approval**

08-212-15 [3202], 09-871-12 [3670], 16-2478-5 [3403], 16-2504-5 [3228], 17-2581-5 [3413], 17-2640-5 [3372], 18-3008-3 [3008], 18-2948-4 [3680], 18-2971-4 [3679], 20-3300-2 [3300], 20-3401-2 [3401], 20-3406-2 [3406], 20-3419-2 [3419], 20-3428-2 [3428], 20-3431-2 [3431], 21-3668 [3668] and 21-3673 [3673] were granted full approval.

**08-212-15 [3202]** (Annual Renewal) Application Title - *"Conditional Knockout of Selenoprotein K"*. **Vertebrate Species** – Mice. **Project Description** – Continuation of a project which uses a lox/cre system to: 1) determine the role of Selenoprotein K in different tissues and 2) determine the role of Sel K in generating effective immune responses. **No discussion.**

**09-871-12 [3670]** (Full Renewal) Application Title - *"Mechanism of Selenoprotein Synthesis and Studies of Selenoprotein Functions"*. **Vertebrate species** – Mice. **Project Description** – Continuation of a study of mice that do not have Selenoprotein M (SelM KO) and Selenocysteine Lyase (ScLy KO), assuming the mice are viable. These animal studies are designed to confirm cell culture models which show a role for SelM and ScLy in the protection from oxidative stress and selenoprotein synthesis respectively. **Discussion** – An amendment should be submitted to relocate the project's mice to the vivarium on the Manoa campus.

**16-2478-5 [3403]** (Annual Renewal) Application Title – *"Alala Reintroduction and Management"*. **Vertebrate species** – Rats, cats, mongoose and birds. **Project Description** – Continuation of a project that assists in the reintroduction and recovery of endangered Hawaiian Crow (Alala). Predators will be systematically reduced/removed in the areas around Alala feeding and nesting sites. **No discussion.**

**16-2504-5 [3228]** (Amendment) Application Title – *"Assessing Lifespan and Aging Phenotypes Resulting from FoxO3 Induction Using Mouse Models"*. **Vertebrate species** – Mice. **Project Description** – Continuation of a project to insert genes believed to slow aging, into mice. The amendment to the project was for starting the aging experiments through the use of paraquat, an oxidant that speeds up aging. **No discussion.**

**17-2581-5 [3413]** (Annual Renewal) Application Title – *"Stranding Response and Necropsy for Pacific Island Cetaceans"*. **Vertebrate Species** – Whales and Dolphins. **Project Description** – Continuation of a project to respond to dead cetacean strandings throughout the state of Hawaii by recovering carcasses, conducting necropsies and by leading follow-up cause of death investigations. The project also proposes to respond to on-site live stranding events by providing triage, transport and euthanasia. **Discussion** – pain and distress category is C pursuant to the *Guidance on USDA Pain Categories Policy* for blood withdrawals.

**17-2640-5 [3372]** (Annual Renewal) Application Title – *"Predator Control at Pacific Missile Range Facility on Kauai"*. **Vertebrate Species** – Rats and cats. **Project Description** – Continuation of a project that seeks to eliminate or significantly reduce the number of alien predators (primarily cats and rats) living in the vicinity of a federally listed seabirds at the Pacific Missile Range Facility on Kauai. **No discussion.**

**18-3008-3 [3008]** (Annual Renewal) Application Title - *"Analysis of Uterine Functions in the Establishment of Pregnancy in Cattle"*. **Vertebrate species** – Cattle. **Project Description** – Continuation of a project that establishes an early pregnancy marker in cattle by gene expression related to the establishment of pregnancy, in the endometrium, trophoblastic cells, blood cells and ovarian tissue in a systemic approach. **No discussion.**

**18-2948-4 [3680]** (Full Renewal) Application Title – *"UAV Photogrammetry Calibration to Derive Dolphin Population Demographic Parameters"*. **Vertebrate species** – Dolphins and whales. **Project**

**E. Review of New Protocols, Renewals, and Revisions:**

**Description** – Continuation of a project to validate body measurements of marine mammals obtained via aerial photogrammetry (UAVs or drones) with measurements obtained with the animals. This research will help obtain robust demographic and health measurements of wild populations of dolphins and whales. **No discussion.**

**18-2971-4 [3679]** (Full Renewal) Application Title – “*Study of Marine Mammal Abundance, Ecology, Behavior and Resilience to Anthropogenic Stressors*”. **Vertebrate species** – Marine mammals. **Project Description** – Continuation of a research project to obtain biologically relevant comparative measurements across populations and species and to provide management and stakeholders with important information about the basic biology and ecology of marine mammal species. Data is collected by 1) obtaining information on the fundamental biology and ecology, including assessing abundance and habitat use of marine mammals; 2) analyzing and developing quantitative methods to evaluate the complex animal social structures of marine mammal populations and studying the fine scale behavior and energetics between individuals; and 3) using results to facilitate impact assessment and mitigation procedures to lessen impact of human activities on marine mammals. **No discussion.**

**20-3300-2 [3300]** (Annual Renewal) Application Title – “*Molokai Fencing for Watershed Protection*”. **Vertebrate species** – Goats, pigs and deer. **Project Description** – Continuation of a project for protecting irreplaceable watershed forest on the island of Moloka'i from damage by removing feral ungulates. Scientific knowledge gained through this project will contribute to statewide watershed protection initiatives by providing resource managers and agencies with data that can inform strategy selection and conservation program implementation. **No discussion.**

**20-3401-2 [3401]** (Annual Renewal) Application Title – “*Vessel Surveys of Wild Hawaiian Spinner Dolphins along East Hawaii Island*”. **Vertebrate species** – Dolphins. **Project Description** – Continuation of a project that seeks to develop an understanding of the diurnal and seasonal presence, habitat use, individual sighting rates, demographics, behavioral patterns and vocalizations of Hawaiian Spinner Dolphins (*Stenella longirostris*) on east Hawaii Island off Hilo Bay and along the Hamakua Coast. **No discussion.**

**20-3406-2 [3406]** (Annual Renewal) Application Title – “*Community-Based Invasive Species Removal Continues Improving Habitat Accessibility and Connectivity for Migratory Native Stream Species in Makiki, Manoa, and Palolo Streams*”. **Vertebrate species** – Fish. **Project Description** – Continuation of a project that covers the direct removal of invasive species as a means to restoring habitat, while education through outreach provides a critical strategy for stopping new introductions and limits the spread of invasive aquatic species. **No discussion.**

**20-3419-2 [3419]** (Annual Renewal) Application Title – “*Little Fire Ant Detector Dog Program*”. **Vertebrate species** – Dogs. **Project Description** – Continuation of a project to develop a canine detection program for Little Fire Ant (LFA). The little fire ant poses significant health, agricultural, economic, and quality-of-life threats to Maui. **Discussion** – more detail on the animal activities should be provided via an amendment, once the trainer and dogs arrive.

**20-3428-2 [3428]** (Annual Renewal) Application Title – “*Regucalcin and Cancer Suppression*”. **Vertebrate species** – Mice. **Project Description** – Continuation of a project to determine suppressive effects of regucalcin, a novel suppressor protein of cancer, on prostate cancer bone metastasis to provide a novel strategy of therapeutic tool in treating prostate cancer. **No discussion.**

**20-3431-2 [3431]** (Annual Renewal) Application Title – “*Health Monitoring of Pacific Island Cetaceans*”. **Vertebrate species** – Dolphins. **Project Description** – Continuation of project to better understand cetacean health through the assessment of biological samples from bottlenose dolphins at Dolphin Quest facilities. **No discussion.**

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**21-3668 [3668]** (New) Application Title – *“Testing Acceptance of Seaweed as a Feed for Nenuke (*Kyphosus vaigiensis*)”*. **Vertebrate species** – Fish. **Project Description** – This new project is to determine whether nenuke will accept seaweed as a dietary item and whether it can be used as a feed item. **No discussion.**

**21-3673 [3673]** (New) Application Title - *“Addressing COVID-19 Impacts to Local Food Security Through Aquaculture of Native Hawaiian Marine Finfish and Seaweed”*. **Vertebrate species** – Fish. **Project Description** - This project will re-establish nursery protocols using modern aquaculture technologies in order to restore fish and limu production in loko i’a (Hawaiian fishponds). **No discussion.**

IACUC Vote – Unanimous vote for 09-871-12 [3670], 16-2478-5 [3403], 16-2504-5 [3228], 17-2581-5 [3413], 17-2640-5 [3372], 18-3008-3 [3008], 18-2948-4 [3680], 18-2971-4 [3679], 20-3300-2 [3300], 20-3401-2 [3401], 20-3406-2 [3406], 20-3419-2 [3419], 20-3428-2 [3428], 20-3431-2 [3431] and 21-3668 [3668].

- Majority vote for 08-212-15 [3202]. Member M abstained. Member M is the PI for the project.
- Majority vote for and 21-3673 [3673]. Member K is the PI for the project.

**Description of Protocols - Not Approved until Additional Information or Clarification is Provided:**

**15-1762-76 [3672], 16-2402-6 [3410], 21-3655 [3655] and 21-3674 [3674]** were Not Approved until Additional Information or Clarification is Provided.

**15-1762-76 [3672]** (Full Renewal) Application Title - *“Control of Introduced Milred Conures (*Aratinga mitrata*) on Maui, Hawaii”*. **Vertebrate Species** - Birds. **Project Description** – Continuation of a project to restore native Hawaiian species by controlling invasive species. **Discussion** – The full renewal was not approved because the committee requested clarification on the disposition of the birds that may be injured by gunshot rather than killed immediately.

**A. Section 8. 8.1.1.1 Experimental Design, Methods and Procedures.**

- Explain what happens if a conure is injured by the gunshot rather than being immediately killed

IACUC Vote – Unanimous vote for nonapproval

**16-2402-6 [3410]** (Annual Renewal) Application Title – *“Kauai Natural Area Reserve Predator and Ungulate Management”*. **Vertebrate Species** – Goats, pigs, and small mammals. **Project Description** – Continuation of a project that covers habitat management, including completion of perimeter fencing, control of invasive plants, control of introduced predators, and removal of game animals. **Discussion** – The annual renewal was not approved because the committee requested more details on the firearms used for euthanasia.

**A. Section 12. 12.1.2.1.12 1. Type of Firearm**

Provide more detail on the firearms used.

- Type, brand, model, caliber and ballistic information.
- The species each firearm is used on.

IACUC Vote – Unanimous vote for nonapproval

**21-3655 [3655]** (New) Application Title – *“Kohala Watershed Partnership”*. **Vertebrate species** – Mongoose, rats, pigs and goats. **Project Description** – This new project seeks to document, assess,

**E. Review of New Protocols, Renewals, and Revisions:**

and implement management actions to protect watersheds before and after ungulate exclusion in a variety of ecosystems within the Kohala Watershed Partnership (KWP) lands on the Island of Hawaii. This project also aims to capture the effects of feral ungulates within and on the landscape and to eliminate and remediate their impacts to the extent feasible. **Discussion** – The protocol was not approved because the committee needed clarification on whether air rifles would be used to euthanize ungulates.

**A. Section 11. 11.1.2.2. Justification for Physical Method of Euthanasia.**

The protocol states "For trapped ungulates, gunshot/air rifle at close range also renders instant incapacitation/death".

This is not congruent with the type of firearms mentioned in Section 8 Experimental Design.

- Will air rifles be used to euthanize feral ungulates and non-native animals? If yes, provide a description of the air rifles.

IACUC Vote – Unanimous vote for nonapproval.

**21-3674 [3674] (New) Application Title – "Comparing Avian Malaria Conditions on Hawaii Island".**  
**Vertebrate species – Birds. Project Description** - This is a collaborative project between PCSU/University of Hawaii and the Department of Land and Natural Resources - Division of Forestry and Wildlife (DLNR-DOFAW) will compare relative Culex mosquito abundances, and the prevalence of Plasmodium relictum (avian malaria), in mosquitoes and birds, within key forest bird habitat at high elevation sites across four seasons on Hawaii Island. **Discussion** – The protocol was not approved because clarification was needed on personnel, non-target species. Documentation of vet care and permits were not provided.

**A. Section 2. 2.1 Review of Regulations and 2.2 Protocol Associates**

- If DLNR-DOFAW staff will assist in animal procedures they are required to complete CITI training and be added to the personnel section.

**B. Section 8. 8.1.1.1 Experimental Design, Methods and Procedures.**

- Provide specific information about how non-target species, such as the Hawaiian Hawk or Kalij Pheasant that may be caught, will be handled.
  - If captured, will they be released or will they be banded and a blood sample collected?
  - Please add these species to the lists in 4.3.2.1 and 4.4.

**C. Section 13. 13.2.2.2 Documentation of Vet Care.**

- Provide a letter from the local or contract veterinarian of his/her acceptance of expectations and responsibilities for veterinary care on this project.

**D. Section 15. 15.1.1.1 Special Permits.**

- Provide copies of the State and Federal permits for this project, including the State of Hawaii Protected Wildlife Permits, Federal Bird Banding and Federal Endangered Species Permits.

IACUC Vote – Unanimous vote for nonapproval.



**F. Previously Reviewed Protocols and Project Personnel Changes - Approved**

Approved protocols – 13-1636-9 [3145], 13-1805-7 [3261]

Approved Personnel Changes – 03-007-18 [3527], 04-049-18 [3362], 06-010-16 [3490], 09-887-11 [3133] and 20-3347-2 [3347]

Approved protocols (DMR approved) – 06-011-14 [3293]

Approved protocols (VVC approved) – None

**G. Adjournment:** The meeting was adjourned at 3:20 PM.

**LEGEND**

Approved - research or training/teaching can begin or continue.

Not Approved - research or training/teaching cannot begin until additional information or clarification required by the committee is reviewed and approved by the chairperson.

Deferred - research or training/teaching cannot begin as the protocol has serious defects that require significant justification and review by the full committee.

**IACUC Decision on Reviewed Protocols August 19, 2021**

Approval	Not Approved	Deferral	Withdrawn	Tabled
17	4	0	0	0

Respectfully submitted,

Diana Talerico Blanco  
 Program Manager  
 Animal Welfare and Biosafety Programs