UC SANTA BARBARA

Institutional Animal Care and Use Committee

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https://www.research.ucsb.edu/compliance/animal-subjects/

December 14, 2018

Prof. Joseph Incandela Vice Chancellor for Research

Re:

Fall 2018 Semiannual Program Review and Facility Inspections

Attached is the Institutional Animal Care and Use Committee's final report for the Fall 2018 Semiannual Program Review and Facility Inspections, which was reviewed and approved by the Committee on December 14, 2018. There were no significant deficiencies associated with the Fall 2018 Program Review and Facility Inspections. Please contact the IACUC Office if there are any questions regarding the final report.

On Behalf of the Committee,

Reviewed b

Prof. Joseph incandela

Vice Chancellor for Research

Date: 1/14/18

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DATE: December 14, 2018
TO: Prof. Joseph Incandela

Vice Chancellor for Research

FROM: UCSB Institutional Animal Care and Use Committee

SUBJECT: Semiannual Evaluation of Animal Care and Use Program and

Inspection of Facilities

This represents the semiannual report of the Institutional Animal Care and Use Committee (IACUC), as required by the PHS Policy on Humane Care and Use of Laboratory Animals and as a condition of this institution's Animal Welfare Assurance on file with the Office for Laboratory Animal Welfare, and USDA Animal Welfare Regulations, 9 CFR Chapter I, subchapter A, as applicable. No minority reports were submitted for the Semiannual Program Review or Facility Inspections.

Evaluation of the Animal Care and Use Program:

The IACUC conducted its semiannual evaluation of the institution's animal care and use program on October 25, 2018, using the Guide for the Care and Use of Laboratory Animals (Guide), and, as applicable, 9 CFR Chapter I, 2.31.

No deficiencies were identified during the Fall 2018 review of the animal care and use program.

Inspection of Animal Facilities:

The IACUC inspected the animal facilities on July 19, 2018; October 1, 10, 11, 15, 16, 17, 18, 22, 2018; and November 6, 2018 using the Guide, and, as applicable, 9 CFR Chapter I, 2.31.

4 minor deficiencies and 1 repeat minor deficiency were identified during the inspections of the animal facilities and are described in the UCSB-IACUC Semiannual Facility Inspection Report deficiency tables. The reports also include specific plans and schedules for the correction of each deficiency.

Please review the attached letters for details of the program and animal facilities inspections.

Departures from the Guide

The following list of projects outlines UCSB's departures from the Guide, and has been approved by the IACUC. All departures are reviewed annually by the IACUC, in addition to each semiannual program review and facility inspection.

1. Protocol

Departure: The Guide (pg. 43) states "animals should be provided with adequate resources for thermoregulation (nesting material, shelter) to avoid cold stress."

The CLAMS (Comprehensive Lab Animal Monitoring Systems) are not designed to function with a nesting and/or rigid shelter because it would inhibit the ability for monitoring the movement/activity of the mice.

2. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

3. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

4.	Protocol	
44		

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

5. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild mammals or reptiles. Instead, animals will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the animal will be released.

6. Protocol

Departure: The Guide (pg. 112) states "All animals should be observed for signs of illness, injury, or abnormal behavior by a person trained to recognize such signs. As a rule, such observation should occur at least daily, but more frequent observations may be required, such as during postoperative recovery, when animals are ill or have a physical deficit, or when animals are approaching a study endpoint."

If no signs of stress occur, fish will be monitored weekly. Weekly, not daily, status checks of the experimental fish are proposed for several reasons (see protocol for reasons).

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

7. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild frogs. Instead, frogs will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated

normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the frog will be released.

8. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild snakes. Instead, snakes will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the snake will be released.

9. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild frogs. Instead, frogs will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the frog will be released.

10. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild salamanders. Instead, salamanders will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the salamander will be released.

11. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild amphibians or reptiles. Instead, amphibians and reptiles will be monitored for signs of illness, injury, or abnormal

behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates.

Once normal behavior has been demonstrated, the animal will be released.

12. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild frogs. Instead, frogs will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the frog will be released.

13. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild amphibians. Instead, amphibians will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the amphibian will be released.

14. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has either demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the animal will be released.

15. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal

behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

16. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field studies, veterinary care is not available for wild amphibians. Instead, amphibians will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the amphibian will be released.

17. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field station, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

18. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

19. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

20. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

Departure: The Guide (pg. 34) states "Both the Health Research Extension Act and the AWA require the IACUC to inspect animal care and use facilities, including sites used for animal surgeries, every 6 months."

Due to the remote location of the field station, the IACUC will not be able to semiannually inspect the animal housing facilities.

21. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead any fish in distress will be released and monitored until it has either demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the animal will be released.

22. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

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Due to the remote location of the field station, the IACUC will not be able to semiannually inspect the animal housing facilities.

23. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

Departure: The Guide (pg. 34) states "Both the Health Research Extension Act and the AWA require the IACUC to inspect animal care and use facilities, including sites used for animal surgeries, every 6 months."

Due to the remote location of the field station, the IACUC will not be able to semiannually inspect the animal housing facilities.

Departure: The Guide (pg. 106) states "the AV should provide guidance and oversight to surgery programs and perioperative care involving animals."

Due to the remote location of the field station, the AV will not be able to provide oversight for survival surgeries, including proficiency evaluations.

24. Protocol

Departure: The Guide (pg. 74) states "emergency veterinary care must be available after work hours, on weekends, and on holidays."

Due to the remote location of the field work, veterinary care is not available for wild fish. Instead, fish will be monitored for signs of illness, injury, or abnormal behavior until it has demonstrated normal behavior or will be euthanized if its condition deteriorates. Once normal behavior has been demonstrated, the fish will be released.

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INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

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Email IACUC@lifesci.ucsb.edu

MEMORANDUM

TO: Dr. Joseph Incandela, Vice Chancellor for Research

Institutional Official

CC:

FROM: UCSB INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE (IACUC)

SUBJECT: Semiannual Animal Care and Use Program Review, Fall 2018

DATE: 12/14/2018

The IACUC conducted a semiannual review of the UCSB animal care program as directed by the Public Health Services Policy and the Animal Welfare Act Regulations. In accordance with these Federal regulations and our assurance agreement with Federal granting agencies, the IACUC is required to report any areas of concern or deficiencies and to oversee corrective actions. We are pleased to report that we did not find any areas of concern or deficiencies with the animal care program. Please acknowledge receipt of this report by responding to the IACUC within 14 days of this notice. You may return your response via email to iacuc@lifesci.ucsb.edu. If you have any questions, please contact the IACUC Office.

For the Committee,

SEMIANNUAL FACILITY INSPECTION REPORT

IACUC Members in Attendance: 007 034 035

Inspection Date: 10/11/2018 Facility Type: Animal Holding Facility Covered **Building & Room** Finding & Correction Plan Species Deficiency PI Response & Outcome **Correct By** Minor 11/8/2018 A mouse cage had a Hydropac that had leaked all of From PI on 10/24/18: Firstly, no mice were harmed. No In this particular incident, the the water on the cage bedding. identified a single mouse cage with wet bedding, and The AV was made aware of this cage during the reported it to the AV. who then immediately reported inspection of this room. He immediately notified the . The cage in question was in it to the who went into the room, changed out the biohazard (ABSL2) room, which for biosecurity the cage and discarded the empty Hydronac. reasons we don't enter until the end of the day. The cage had been checked by an ARC animal caretaker less than 24 hrs before, that is, all animals are checked at least once a day. After being notified of the issue by the AV, the promptly moved the mice to a new cage with dry bedding. The mice were not wet; they were all dry, healthy, and active. During the inspection, one of the lab members From Lab Manager on 11/13/18: [The Lab Assistant] No Minor 11/16/2018 mentioned that they had not been using a fume hood was not aware that the MS-222 powder would be an while preparing MS-222 solutions from powder. irritant. [The Lab Manager] shared the chemical hygiene plan with the entire team and will hang it up Review the Chemical Hygiene Plan for MS-222 with in the fish lab as well for everybody's reference. lab personnel to ensure that they know how to From here on now MS-222 solutions will always be properly prepare solutions and handled the chemical. prepared under a fume hood with the appropriate PPE. An animal (killifish) death was recorded in the From Lab Manager on 11/13/18: This fish died the No Minor 11/16/2018 husbandry and animal care log, but was not reported day after it was caught from the lagoon and placed to the Attending Veterinarian. What was the cause of into the tank. [The Lab Assistant] assumed the death this animal's death? Why was the death of this was due to a failure to acclimate to its new animal not reported? environment. He was not aware that any death, including an acclimatization death needed to be Review the 'Provision of Adequate Veterinary Care reported to a veterinarian. We have now reminded all and Reporting Unanticipated Protocol students assisting with the protocol that all Complications' IACUC Guideline with lab personnel unanticipated deaths (e.g not a planned endpoint as and ensure they understand the procedures for part of the protocol), regardless of cause, are to be notifing the Attending Veterinarian when a sick or reported to the veterinarian within 24 hours. As part dead animal has been identified. of this effort we have shared the Provision of Adequate Veterinary Care and Reporting Unanticipated Protocol Complications with the appropriate personnel for review.

SEMIANNUAL FACILITY INSPECTION REPORT

Inspection Date: 10/18/2018 Facility Type: Animal Holding Facility IACUC Members in Attendance: AV Covered **Building & Room** Finding & Correction Plan Species Deficiency **Correct By** PI Response & Outcome The deaths of several animals (frogs) were recorded No Minor 11/16/2018 From Project Scientist on 11/1/18: Causes of death in the husbandry and animal care log, but the animal are likely intraspecific competition for food inside deaths were not reported to the Attending the animal tanks. We are working with the Veterinarian (AV). What were the causes of these to get larger tanks, more tanks, and feeding deaths? Why were the deaths of these animals not accordingly. reported to the AV? We apologize for not reporting the deaths to the AV. Review the 'Provision of Adequate Veterinary Care From now on, we will report every death and if we and Reporting Unanticipated Protocol notice any symptoms of declining health (e.g., lack Complications' IACUC Guideline with lab personnel of eating, smaller size, etc.). and ensure they understand the procedures for notifing the Attending Veterinarian when a sick or dead animal has been identified. 11/14/2018 While looking at the post-operative records for some From PI on 11/25/18: In response to the IACUC's No Repeat - Minor of the rats in this room, there were multiple instances inspection of the viviarium. I have met where the records had not been properly dated or with all of the surgeon's in my laboratory and we initialed by the lab member providing post-operative have re-reviewed the procedures for post-operative procedures, to include proper record-keeping and care. nursing care. Ensure that lab personnel understand the importance of signing off on the post-operative log and are properly re-trained.