

**Washington State University Standard of Veterinary Care for
Satellite Animal Housing Location**

Title: Animal Care Plan {Salamander, Frogs, Newts; Jonah Piovia Scott: ASAF 6338/7075}

I. Procedure:

Daily (365 days a year without exception):

- Observe each animal and check for health concerns (*Guide* pg. 112).
- Clean and organize room, anterooms, and surrounding premises (*Guide* pg. 72).
- Record daily completion of tasks, environmental monitoring, initial, and date daily animal care sheet (*submit copy of sheet*).
- Report on the OCV Health Database M-F.
 - Any abnormal animals must be reported to the Office of the Campus Veterinarian (Health database), or if an emergency call 5-6246 or 509-335-1871.
- *Pest monitoring and/or control devices (define type) and documented on daily care sheet. Fly strips are used when feeding mobile prey.*
- *The temperature will be the building-controlled temperature, which commonly ranges from 20-26°C, except for overwintering periods. Temperature will be monitored daily.* In addition to room temperature, we also keep some animals at 15C in environmental chambers. We use the same protocol for changing temperature (eg, no more than 2 C per day) that is mentioned here for animals that come in at a different temperature.
- - *During overwintering, animals will be kept at 4-5 °C.*
 - *Animals will be brought into winter conditions by lowering the temperature 2 degrees per day until the target overwintering temperature is reached. The same rate of temperature change will be used to bring animals out of winter conditions*
- *Humidity: all life stages will have access to standing water or a moist paper towel. If the water level is reduced by evaporation between water changes, additional fresh water will be added to containers.*

3x Weekly:

- *Animals will be fed three times a week*
 - *Larvae will be fed: tadpole food, ground alfalfa pellets, fish flakes, boiled organic romaine lettuce, spirulina pellets, boiled organic kale*
 - *Post-metamorphic animals will be fed: fruit flies, crickets, or other suitable arthropods.*
 - *Fruit flies will initially be obtained from a pet food supplier, then reared in the laboratory using commercially available growth medium. Any containers of flies that are contaminated, contain a high proportion of dead flies, or in which the growth medium has spoiled will be discarded.*
 - *Crickets and other arthropods will be obtained from a pet food supplier*
 - *Vitamin and mineral supplements will be administered at least once per week by dusting food insects prior to feeding.*

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- *Food will be stored in a refrigerator or freezer if appropriate and discarded if contaminated or spoiled*
- *Animals will not be fed during overwintering period but will be fed during the cool-down and warm-up periods on either end of overwintering.*

Weekly (not to exceed every 7 days):

- *The water used to house amphibians will be tested for pH and conductivity using a hand-held meter prior to weekly water changes. Water that is outside of the acceptable range for these variables will be discarded and replaced with fresh water*
 - *Acceptable ranges*
 - *pH: 6 – 8*
 - *hardness: 50 – 300 ppm (3 – 18 dGH)*
 - *For adults, 100% of water will be removed and replaced with fresh water*
 - *For larvae, at least 50% of water (and all solid waste) will be removed and replaced with clean water*
- *Containers will be cleaned weekly with water; water will be changed weekly*

Monthly:

- *Animal rooms and support spaces will be cleaned monthly and disinfected between experiments.*
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Facilities

- *The animals will be housed in Rm 007 or 0219 Vancouver Science & Eng. Building*
- *Provide date and findings of the ventilation assessment (air changes/hour and flow pattern) for interior facilities (Call the Animal Welfare Program for this information 57951) this was performed 2021.*
- *Light/dark cycle is on at 7am and off at 7pm.*
 - *During overwintering, animals will be kept in darkness for 24 hrs per day.*
 - *Animals will be brought into winter conditions by decreasing light exposure for one hour per day (in concert with temperature reduction) until complete darkness is reached. The same rate of light change will be used to bring animals out of winter conditions.*
- *Interior room surfaces shall be moisture-resistant, non-absorbent, impact resistant, and sanitizable.*

Housing

- *Animals will be housed in plastic containers (1 – 6 quart) with a tight-fitting lid that allows for gas exchange with the surrounding environment.*
 - *Larvae: containers will be filled with water to a depth of at least 4 cm*
 - *When larvae begin to resorb tail and front legs appear, we will create terrestrial habitat for metamorphosing animals by tilting container or adding a floating object*
 - *Post-metamorphic animals:*
 - *Semi-aquatic species: containers will be tilted such that there will be a wet end with a water depth of at least 2 cm and a dry end.*
 - *Terrestrial species: containers will be lined with a damp paper towel to provide moisture.*
- *Water used to house amphibians will be purified (e.g. carbon-filtration) to remove*

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chlorine, chloramines, and other contaminants; alternatively we will use spring water to which chlorine and other chemical disinfectants have not been added. All water will be checked to ensure that it has an appropriate electrolyte balance

- If needed, additional electrolytes will be added using a commercially available water conditioner (e.g. RO right)
- Environmental enrichment consisting of small plastic shelters will be added to the containers
- Each container will house up to 10 larvae and 6 post-metamorphic individuals
 - Larval density will not exceed two per quart of total container volume, juvenile (post-metamorphic) density will not exceed one per quart of total container volume; any frogs or salamanders greater than 1 year old will be housed at a density not exceeding one per 3 quarts of total container volume

II. **Sanitation Monitoring**

- *Containers will be cleaned weekly with water.*
- *All hand washed housing containers and items that come into contact with animals will follow the IACUC SOP #5 and have annual Sanitation Monitoring.*

III. **Waste Disposal**

- *Describe where carcasses will be disposed*
 - *Animal carcasses will be placed in biohazard labeled containers and incinerated.*
 - Carcasses are either incinerated or sent to Washington Animal Disease Diagnostic Laboratory for processing
- *Describe where soiled bedding or for aquatics where water will be disposed and how? Described in BAF 1233.*
 - *Soiled bedding is autoclaved for a minimum of 45 minutes and then disposed of.*
- *Describe how hazardous waste is disposed if applicable: Described in BAF 1233*
 - *Liquid, chemical waste, such as MS-222 and formalin are sent to our Environmental Health and Safety Coordinator for proper disposal. Prior to sending MS-222 to the coordinator, we mix MS-222 with a 2% Chlorhexidine solution.*

IV. **Animal Numbers and Tracking**

- *List the person's name that will be tracking animals on My Research*
 - *Alysha Henderson will report numbers to the IACUC office?*

V. **Signage, Emergency Information (List of posted signs and locations)**

- *Describe location of the following mandated signage and verify posting?*
 - Guidelines for Reporting Animal Concerns
 - On door of Room 219 in VSCI
 - On door of Room 007 in VSCI
 - Near zipper door within Room 007
 - Emergency contact information for Satellite Housing Location Personnel
 - On door of Room 219 in VSCI
 - On door of Room 007 in VSCI
 - Near zipper door within Room 007
 - Emergency contact for Veterinary assistance (OCV or other veterinarian)
 - On door of Room 219 in VSCI
 - On door of Room 007 in VSCI

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- Near zipper door within Room 007
- Any biological, chemical, radiation or other hazard signage as required
 - Biosafety Level 2 signage near door of Room 007 and 205 in VSCI
 - Biosafety Level 2 signage on zipper door within Room 007
 - Biohazard sticker on -20C freezer in room adjacent to Room 205
 - Biohazard sticker on items within VSCI 205 in the Biological Safety Cabinet (BSC) room
 - Biohazard Biosafety Level 2 sign outside of BSC room
- Notification Protocol for Abnormal Animals
 - On door of Room 219 in VSCI
 - On door of Room 007 in VSCI
 - Near zipper door within Room 007

VI. Security

- *Describe how the facility is secured (electronic key, standard key and number)*

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VII. Disaster Plan

- *See separate plan template below. Templates are available for all WSU locations*

References

See Piovita Scott Husbandry SOP

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Washington State University-Vancouver
Disaster Plan
Animal Care
{PI} Lab- {location}

The primary goal for this document is to give general procedures and information for research animal care and support that are to be followed in the case of an emergency. This is secondary to the employee disaster plan and will only be implemented when conditions provide a safe working environment for employees.

Emergency Plan

WSU telephone service has temporary emergency back-up power and would work in situations of power failure. Employees would be notified of problems and work plan by the PI. The PI would also be responsible for notifying Facility Operations, EH & S, and OCV of emergency situations in a timely period. Employees would report to work, as they are physically able to. In cases of extended power failure and/or loss of HVAC, animals would be triaged and cared for in priority. Water supply will continue functioning unless physically damaged. There are back up supplies of food and bedding for the animals. [REDACTED] 38 will supervise care for the animals during a disasters situation with advisory aid from OCV. In the absence of [REDACTED] 38 Dr. Piovia Scott} would take charge of such care.

Phone List

Name	Title	Contact number
J. Piovia-Scott	PI	[REDACTED] 14
[REDACTED] 38	[REDACTED] 38	[REDACTED] 38
Facility Operations		360-546-9000
EH & S		360-546-9706
Office of the Campus Veterinarian		509-330-1871 emergency cell 509-335-6246 office
Campus Security		911 (emergency) 360-546-9001(non- emergency)
Campus Fire Department		911 (emergency)

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Evacuation Plan:

**In case of an emergency, such as a fire, everyone is required to leave the building immediately.
Calmly exit the building and meet at {INSERT LOCATION }.**