**STANDARD OPERATING PROCEDURE**

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| **SOP#:** | | **Date Issued:** | **Date Revised:** |
|  | | | |
| **Title** | *Enter species or common name* Husbandry | | |
| **PI** | *Enter PI name* | | |

1. **Task Schedule** *(examples of typical tasks are entered below, change as needed)*
   1. Daily
      1. *Check that all systems have appropriate water level and water flow (if applicable).*
      2. *Check for animal health; remove dead animals; separate sick animals. Notify ULAR Veterinary Services (949-824-7788) if there are sick animals or unusually high numbers of mortalities.*
      3. *e.g. feed brine shrimp 3 times a day (morning, midday and late afternoon/evening).*
      4. *Record water temperature and pH on Husbandry Log.*
      5. *Record room temperature and humidity on Husbandry Log.*
      6. *Record tasks performed on Husbandry Log.*
   2. Three times a week
      1. *Enter any tasks that need to be done 3 times a week e.g. check sump tanks for any live fish, clean benches, and restock supplies, change water in static systems, feed frogs..*
   3. Twice a week
      1. *Enter any tasks that need to be done twice a week.*
   4. Weekly
      1. *Enter any tasks that need to be done weekly e.g. perform applicable water quality tests.*
   5. Every Other Week
      1. *Enter any tasks that need to be done every other week.*
   6. Monthly
      1. *Enter any tasks that need to be done every month e.g. perform animal inventory, mop floors.*
   7. Every 6 months
      1. *Enter any tasks that need to be done every 6 months e.g. change carbon filters.*
   8. Every 12 months
      1. *Enter any tasks that need to be done every 12 months e.g. Change UV bulbs*
   9. As Needed
      1. *Enter any tasks that need to be done as needed e.g. clean algae off tanks.*
2. **Food**
   1. *Describe the feed type, method of preparation and vendors, as applicable.*
   2. *Amount, frequency and method of feeding.*
3. **Environment**
   1. Room
      1. *Temperature (e.g. 68 – 75oF*)
      2. *Humidity (e.g. 30 – 70%)*
   2. Water
      1. *Water quality parameters (enter acceptable ranges for applicable parameters) e.g.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Acceptable Range | Units | Method of Testing | Frequency |
| Water temperature |  |  | In-line electronic thermometer | Daily |
| Separate digital thermometer | Weekly |
| pH |  |  | In-line electronic probe | Daily |
| Chemical titration kit | Weekly |
| Nitrates |  |  |  | Weekly |
| Nitrites |  |  |  | Weekly |
| Ammonia |  |  |  | Weekly |
| Salinity |  |  |  | Weekly |
| General Hardness |  |  |  | Weekly |
| Dissolved O2 |  |  |  | Weekly |

1. **Ordering and Receiving**
   * 1. *Describe ordering, receiving and unpacking procedures.*
     2. *Quarantine of new arrivals (may be described here or may be described in a separate SOP).*
2. **Identification** 
   1. *If marking of individual animals is necessary, describe the method here.*
3. **Housing**
   1. *Type of tanks (e.g. size, material, transparent/opaque, manufacturer etc.).*
   2. *Type of water system (e.g. static, flow-through, recirculating).*
   3. *Water source (e.g. RO water, distilled water, untreated municipal water, charcoal-filtered municipal water).*
   4. *Describe any chemicals routinely added to the water (e.g. dechloraminating agents, buffers, salt etc.).*
   5. *For transgenic animals, describe the treatment of waste water to prevent accidental release of live animals or gametes into the sewage system (e.g. filtration).*
4. **Animal Handling**
   1. *Describe methods for capturing animals etc. If nets are used, describe how they are sanitized.*
5. **Euthanasia**
   1. *Briefly describe euthanasia procedures for this species (as approved in IACUC protocol)*

**Related SOPs** *(examples)*

* Maintenance of Recirculating Aquatic Systems
* Calibration of pH meters
* Water Quality Testing
* Quarantine of New Animals
* Health Monitoring of Colony
* Euthanasia
* Emergency Plan

**Related Logs** *(examples)*

* Husbandry Log
* Illness and Mortality Log
* Water Testing Log (to enter the results of weekly water chemistry tests)
* Aquatic System Maintenance Log

**Additional Resources**

* For examples of SOPs for *Xenopus laevis*, *Rana pipiens* and *Rana catesbeiana*, see ULAR web site SOP page <http://apps.research.uci.edu/ular/researchers/sop_index.cfm>, Section H6 Amphibians.
* <http://www.xenopus.com/links.htm>