

Title: Minimum Standards for Housing Aquatic Species, IACUC Administrative Policy P-0016-01
Approval Date: January 26, 2016
Authorized by: Institutional Animal Care & Use Committee
Date Drafted/Author: September 14, 2015 / JEC      Last Revision: December 09, 2015 / JC, TG, CS &RW

## I. Purpose

The eighth edition of the Guide for the Care and Use of Laboratory Animals addresses terrestrial and aquatic animals in separate sections, reflecting the growing role of aquatic animals in biomedical research. Investigators who house aquatic animals must establish written standard operating procedures (SOPs) to ensure compliance with The Guide. The following minimum requirements must be met and documented regarding housing and husbandry of aquatic species:

## II. Procedures

- a. **Daily** observation of all animals for general health, including weekends and holidays.
- b. Species appropriate diet and feeding plan, including frequency of feeding.
- c. **Daily** recording of the following housing parameters: water temperature, salinity (or conductivity), and pH.
- d. **Weekly** recording of the following housing parameters: ammonia (NH<sub>4</sub>).
- e. For all aquatic systems, tanks **should** be cleaned and sanitized/disinfected at least **monthly**. Approved methods include: rinsing with 70% ethanol, rinsing with dilute bleach, or sanitizing in a standard cage washer using water temperatures of not less than 180°F.
- f. If tanks are **not** cleaned and sanitized/disinfected monthly, nitrite (NO<sub>2</sub>) and nitrate (NO<sub>3</sub>) levels **must** be measured **weekly** and tanks cleaned and disinfected when concentrations of compounds correlated with water quality exceed generally accepted standards (NH<sub>4</sub> > 0.02 ppm, NO<sub>2</sub> > 0.2 ppm, NO<sub>3</sub> > 50 ppm).
- g. For static systems, a 50% water change **once weekly** is required in addition to the monitoring described above.
- h. Aquaria nets as well as other aquaria accessories and system components should be rinsed and air dried after each use and one net per system or tank is strongly recommended. Nets must be disinfected using dilute bleach (a 10% solution is recommended), Net Soak (or similar commercial cleaner), and/or boiling water at least **monthly**.
- i. A disaster plan should include provisions for addressing power outages, failure of pumps, HVAC and other equipment.
- j. Areas where aquatic species are housed must be IACUC approved prior to use.

Any exceptions to the minimum requirements listed above require scientific justification and prior approval by the IACUC.