UBC Animal Care Guidelines
SOP-009- Water changes
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Date approved:

Water changes in standalone tanks
for care of stickleback (*Gasterosteus aculeatus)*

Purpose

This standard operating procedure (SOP) describes best practices regarding the frequency and extent of water changes when caring for stickleback (*Gasterosteous aculeatus)* housed in standalone lab aquaria. This procedure is not for aquaria connected to the flow-through system..

Policy

These procedures must be carried out to ensure in compliance with CCAC. Failure to abide by the SOP may result in disciplinary action against the indivdual(s).

Responsibility

Student, technical personnel, investigator who have stickleback in their care and have successfully completed the ethic training requirements of the Canadian Council on Animal Care (CCAC) and National Institutional Animal User Training (NIAUT) Program.

Materials:

- hose for water changes
- clean water (aged or from dechlorinated water tap)
- water quality test kits (ammonia, pH, nitrite)

Procedures:

1. Once your tank is fully cycled (tests reveal zero nitrites and zero ammonia), tank water needs to be changed on a routine basis.

2. The frequency and volume of water change depends primarily on the amount of ammonia being produced; this varies with fish density and feeding schedule (over feeding raises ammonia).

3. A 25% water change should be carried out every 2-3 weeks on healthy tanks (low fish density, no detectable ammonia). If 25% water changes cause too much stress, decrease the volume of water being replaced to 10% and increase water change frequency.

4. To minimize the stress caused by water changes, use aged water (same temperature, adjusted pH levels).

5. Increase the volume or frequency of water changes when tanks show spikes in ammonia and continue to test ammonia levels daily until the tank stabilizes at zero.

6. To achieve targets, it may be necessary to lower fish density and the amount of feed.