



## CARE 623.01 Zebra Fish Health Monitoring Program

The intent of this standard operating procedure (SOP) is to describe the health monitoring procedures used to screen populations of zebra fish for infectious diseases. This SOP is intended for use by fish researchers, managers of fish facilities, and CARE personnel. This SOP is approved by the Cornell Institutional Animal Care and Use Committee (IACUC) and the Cornell Center for Animal Resources and Education (CARE). Any exemption must be submitted for approval by the IACUC, prior to its application.

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### 1. Introduction

This program includes both processing of fish from disease events and a routine fish health surveillance effort. CARE or facility staff, as applicable, are responsible for sample collection and submission.

### 2. Materials

- Sentinel fish
- Transport container
- Documentation forms
- Water sample container (approx. 500mL)

### 3. Procedures

- a. Disease event investigations
  - i. Notify CARE of any mortality or disease events.
  - ii. Care staff: collect samples for submission to the Fish Disease Diagnostic Laboratory for processing.
- b. Diagnostic Laboratory Information:
  - i. Contact the diagnostic laboratory prior to submitting samples. Laboratory personnel will give direction on how to submit specific samples to the lab.
  - ii. Submit all surveillance samples and diseased fishes to the Fish Disease Diagnostic Laboratory in a container filled with water from the tank where each fish was housed.
  - iii. Contact information:  
Fish Disease Diagnostic Laboratory (effective January 1, 2008), 253-3365
  - iv. Fish:

- Healthy fish: select 2-10 older fish that are visually representative (e.g. average size and general appearance) of the entire group. Select these fish from various tanks within the room. Submit these fish as live specimens.
  - Ill fish: if ill fish are present, collect these fish and submit separately from the apparently healthy fish. Consult the PI and/or Fish Disease Diagnostic Laboratory for collection and submission of diseased fish.
- v. Provide a water sample (approx. 500 mL) in a clean and suitable container (e.g. plastic or glass).
- c. Routine Surveillance
- i. Monitor all fish populations that are housed for more than 4-6 weeks.
  - ii. Sample all populations at least two times per year..A population consists of any one of the following:
    - An individual tank
    - A rack which contains several tanks which share water from the same system.
    - A water system that has a series of racks which share water and are plumbed in sequence.
  - iii. Consult with the PI to determine which stock fishes are available for sampling, collect 2-10 older fish that are visually representative (e.g. average size and general appearance) of the entire group. Select these fish from various tanks within the population. Submit these fish as live specimens.
  - iv. Disinfect fish nets between groups of fish and if used to capture ill fish.
  - v. Separately submit live diseased fish, if detected, at the time of surveillance. Consult with the PI, CARE veterinarian, & the Fish Disease Diagnostic Laboratory to determine if increased surveillance efforts are needed for diseased populations.

**Note:** The most common signs to look for as an indicator of disease in zebra fishes is body wasting and spinal deformity.

- d. Reporting Test Results
- i. The Fish Disease Diagnostic Laboratory: report results to CARE staff.
  - ii. CARE: send a hard copy of results to the PIs and managers, or post the results on the CARE website.
- e. Documentation: keep historical data in the CARE files for at least three years.

#### 4. Safety

- Wear waterproof gloves whenever handling fish or fish equipment.

#### 5. Contingencies N/A

#### 6. References N/A

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