FISH HEALTH MONITORING PROGRAM

1. PURPOSE

1.1. The purpose of this Animal Care and Use Procedure (ACUP) is to describe the health monitoring procedures used to screen breeding populations of small fish for infectious diseases. This ACUP is approved by the Cornell Institutional Animal Care and Use Committee (IACUC). Any deviation must be approved by the IACUC prior to its application.

2. SCOPE

2.1. This ACUP is intended for use by fish researchers, managers of fish facilities, and Center for Animal Resources and Education (CARE) at Cornell University personnel.

3. INTRODUCTION

3.1. This program includes both processing of fish from clinical disease cases as well as routine fish health surveillance. CARE or facility staff, as applicable, is responsible for sample collection and submission.

3.2. Contact the Cornell Center for Animal Resources and Education (CARE) at Cornell University by e-mailing care@cornell.edu for more information or for assistance.

4. MATERIAL AND EQUIPMENT

4.1. Sentinel / clinically ill fish
4.2. Small vials
4.3. Transport container
4.4. Documentation forms

5. PROCEDURE

5.1. Choose Laboratory for Submission

5.1.1. Submit live or frozen fish to Charles River / LTM or submit live fish to the Fish Disease Diagnostic Laboratory

5.1.2. Follow appropriate instructions in the following sections.
5.2. Charles River Laboratory Testing Management (LTM)

5.2.1. Submit collected and euthanized fish FROZEN for analysis with “Cornell 10-Agent Zebrafish PCR Panel”
5.2.2. Five fish may be pooled per PCR test
5.2.3. Follow LTM submission guidelines for shipment

5.3. Fish Disease Diagnostic Laboratory Information:

5.3.1. Contact the Cornell University Fish Disease Diagnostic Laboratory prior to submitting samples. Laboratory personnel will give directions for submission.

5.3.1.1. Contact information: (607) 253-4028

5.4. Fish Sampling:

5.4.1. For the Fish Disease Diagnostic Laboratory, submit all surveillance samples and diseased fish in a container filled with water from the tank where each fish was housed.
5.4.2. Disinfect fish nets between groups of fish and if used to capture ill fish.
5.4.3. The most common signs to look for as an indicator of disease in small fish is body wasting, abnormal swimming, and/or visible gross lesions.

5.5. Routine Surveillance:

5.5.1. Monitor all fish populations that are housed for more than 4-6 weeks.
5.5.2. Sample all populations at least two times per year. A population consists of any one of the following:

5.5.2.1. An individual tank.
5.5.2.2. A rack which contains several tanks which share water from the same system.
5.5.2.3. A water system that has a series of racks which share water and are plumbed in sequence.

5.5.3. Consult with the Principal Investigatory (PI) to determine which stock fish are available for sampling.
5.5.4. Select 2-10 older fish that are visually representative, (e.g., of average size and general appearance) of the entire group. Select these fish from various tanks within the room. Submit these fish as live or frozen specimens – depending on submission laboratory and preferences of facility vet and / or PI.

5.6. Clinical Illness Diagnostics:

5.6.1. Notify CARE of any mortality or disease events.
5.6.2. Consult the PI, CARE veterinarian, and / or Fish Disease Diagnostic Laboratory for collection and submission of diseased fish, and to determine if increased surveillance efforts are needed for diseased populations.
5.7. Reporting Test Results

5.7.1. The Fish Disease Diagnostic Laboratory or LTM will report results to CARE staff.
5.7.2. CARE staff will send a hard copy of results to the PIs and managers upon request.

5.8. Documentation

5.8.1. Keep historical data in the CARE files for at least three years.

6. PERSONNEL SAFETY

6.1. Medical Emergencies: CALL 911.
6.2. When working with animals wear appropriate PPE, observe proper hygiene, and be aware of allergy, zoonosis, and injury risks. Refer to the CARE Occupational Health and Safety webpage for more information.

7. ANIMAL RELATED CONTINGENCIES

7.1. Post contact information for emergency assistance in a conspicuous location within the animal facility.
7.2. Emergency veterinary care is available at all times including after working hours and on weekends and holidays through CARE (pager 1-800-349-2456).
7.3. Non-emergency veterinary questions and requests for care, email CARE veterinary staff at care@cornell.edu.

8. REFERENCES

8.1. Cornell University College of Veterinary Medicine, Aquatic Animal Health Program: http://www.vet.cornell.edu/microbiology/FishDisease/AquaticProg/shipping.cfm
8.2. CARE Occupational Health and Safety webpage: http://ras.research.cornell.edu/care/OHS.html

9. APPENDIX

9.1. None

10. HISTORY

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<td>31 JUL 04</td>
<td>New Issued – Original Author: Dr. J. Gourdon; Referee: Dr. T. Pavek</td>
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