



Environment and
Sustainable Resource
Development

Title:
**STANDARDS FOR THE ETHICAL
USE OF FISHES IN ALBERTA
(Public Version)**

Date:
May - 2013

Principal Issue:

It is reasonable and responsible for all individuals handling fish to follow currently accepted practices for the humane and ethical treatment of animals. Agencies may require written confirmation that accepted practices are being conducted.

Application:

The following guidelines should be adhered to in field and laboratory situations where fish are handled. These guidelines are based upon the document "American Fisheries Society (AFS) Guidelines for the Use of Fishes in Research" (AFS 2004) with some modifications as stated in this document. Specific directions as written on research permits or cooperating agency policies may take precedence over these suggested standards. Where two groups are working together and both have ethical treatment plans, the groups will use the more restrictive plan.

Developed by:

Adopted from: American Fisheries Society, American Society of Ichthyologists and Herpetologists, and the American Institute of Fishery Research Biologists.

- o See attached modifications ("Alberta Modifications to the Guidelines for the Use of Fishes in Research") by Fisheries Management Branch Standards Committee.

Suggested Citation: Alberta Fisheries Management Branch, 2013. Standards for the Ethical Use of Fishes in Alberta (Public Version).

Approved by (Executive):

Original Signed by:
Travis Ripley

Executive Director of Fisheries Management

Date: Nov 4/13

Alberta Modifications to the Guidelines for the Use of Fishes in Research

Standards pertaining to ethical uses of fishes

It is reasonable and responsible for any persons involved in fish collection to follow currently accepted practices for the humane and ethical treatment of animals. Some amount of fish handling (with associated stress) may be necessary to conduct such activities, but biologists should strive to minimize and avoid unnecessary mortality and stress to fishes. Good experimental design, including power analysis and simulation studies can assist in minimizing fish handling and mortality while achieving an acceptable answer to the research or management question. Minimizing mortality is critical when conducting research on rare fishes or collapsed systems. The need for information must be balanced with the potential risk to the population.

This Alberta Environment and Sustainable Resource Development, Fisheries Management guideline requires anyone involved in fish collection within Alberta to adhere to the stated standard pertaining to the humane treatment of fishes. Other institutions that agencies involved in fish collection may be working cooperatively with, such as universities, colleges, schools, commercial facilities, and federal departments, may have policies directing these activities. Fisheries Research License (FRL) holders should notify the animal care committees of their cooperating partners, if applicable, that fish used in management activities or research will be treated according to these Standards. Where two groups are working together and both have ethical treatment plans, the groups will use the more restrictive plan.

Live Capture Techniques and Equipment (Electrofishing)

Anyone conducting fish collection should follow the general ethical principles in the American Fisheries Society (AFS) Guidelines (AFS 2004), but specific technical standards for electrofishing respecting injury to fish in Alberta are described in a separate standard "Alberta Fisheries Management Division Electrofishing Policy Respecting Injury to Fish", which may be found on the Alberta Environment and Sustainable Resource Development website within the Fish and Wildlife section under Fish Research.

Field Restraint of Fishes: Anesthetics

Anyone planning to use anesthetics should follow the general ethical principles for anesthetics described in the AFS Guidelines (AFS 2004). Applicants will need to provide their protocol if using anesthetics, when requesting a FRL.

Field Acclimation

Anyone temporarily holding fish should follow the general ethical principles in the AFS Guidelines (AFS 2004).

Tagging and Marking

Anyone conducting tagging or marking should follow the general ethical principles in the AFS Guidelines (AFS 2004). Applicants will need to provide their tagging

protocol when requesting a FRL. Applicants may be asked to provide tag numbers (or number series) and tag type when requesting a FRL

Internal marks and use of drugs

Anyone conducting marking and who plan on using any drugs on fish (i.e., tetracycline for marking fish) need to provide the Fisheries Management Branch a proposal outlining the drug(s) they intend on using and determine whether the drug they plan on using is controlled. Before use of any drugs, they must obtain specific Fisheries Management Branch approval for the use of the drugs. Any consumption advisories necessary as a result of drug use must be considered.

Surgery

Anyone conducting fish surgeries should follow the general ethical principles in the AFS Guidelines (AFS 2004). Applicants will need to provide their surgery protocol when requesting FRL.

Telemetry

Anyone conducting telemetry should follow the general ethical principles in the AFS Guidelines (AFS 2004). Applicants will need to provide their protocol for transmitter implementation as well as proposed transmitter type, size, and frequencies when requesting (or preferably prior to requesting) an FRL.

Euthanasia

Acceptable techniques in Alberta include those listed in the AFS Guidelines (AFS 2004), as well as overdose of anesthetic, or sufficient head trauma to ensure death.

Disposal and Release of Fishes

Native, Naturalized, and Invasive Fishes

In field sampling, native and naturalized fishes (refer to the Environment and Sustainable Resource Development (ESRD) List of Native and Naturalized Fish Species in Alberta) should be released unharmed back into the waters from which they were captured. All other fishes captured will require photos and the collection of voucher specimens for confirmation purposes as well as immediate notification of such captured species to Fisheries Management Branch. Voucher specimens will be required to be turned over to Fisheries Management unless otherwise agreed to. Voucher specimens should be euthanized as per the above direction (see Euthanasia Section).

Considerations for Live Fish Sampling in Cold Weather

Special care and planning should occur by fisheries workers when they are engaged in cold weather non-lethal sampling to avoid frost damage to fish. This is especially true when ambient temperatures are below approximately -20°C . Certain parts of fish, such as eyes and thin fins may freeze in a few seconds if proper care is not

taken at low temperatures. Heated tents or shelters over the sampling areas may be used, or only lethal sampling may be planned for cold days. Insulated coolers may be used to hold fish for short periods. Chipping basins in the ice surface, with small holes drilled down to connect to the lake water, may form live-wells to hold fish in water of the appropriate temperature. Care must be used to prevent fish from freezing to measuring boards, weigh scales, and tagging tools.

References

American Fisheries Society (AFS). 2004. Guidelines for the Use of Fishes in Research. 57pp. http://fisheries.org/docs/policy_useoffishes.pdf