

**University of Prince Edward Island
Animal Care Committee
Codes of Practice**

Codes of Practice #: ACC-CP-09

Codes of Practice Title: Record Keeping in UPEI Animal Facilities
Issued by: Animal Care Committee
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1.0 Purpose

- 1.1 Accurate, comprehensive record keeping of animal husbandry, procedures, and environment is critical for ensuring animal welfare and obtaining accurate, reproducible data.

2.0 Scope

- 2.1 All users of University of Prince Edward Island (UPEI) Animal Facilities

3.0 Definitions and Abbreviations

- 3.1 ACC: Animal Care Committee
- 3.2 Animal Facilities: all vivaria at UPEI.
- 3.3 AUP: Animal Use Protocol
- 3.4 CALAM: Canadian Association for Laboratory Animal Medicine
- 3.5 CCAC: Canadian Council on Animal Care
- 3.6 PI: Principal Investigator
- 3.7 SOP: Standard Operating Procedure
- 3.8 UPEI: University of Prince Edward Island
- 3.9 Vivaria: enclosures, containers, or structures adapted or prepared for keeping animals under semi-natural conditions for observation or study.

4.0 Responsibility

- 4.1 The Animal Care Committee (ACC) represents UPEI commitment to responsible care and use of experimental animals through the formulation and implementation of policies, Codes of Practice and the Animal Use Protocol (AUP) approval process.

- 4.2 The Facility Manager or facility specific responsible individual (hereafter referred to as “Facility Manager”) is responsible for maintaining accurate and complete records of food and bedding purchase and storage and water quality testing as applicable. The Facility Manager also oversees the performance of Animal Care staff or facility specific designates.
- 4.3 The Principal Investigator (PI), in consultation and collaboration with Animal Care staff, is responsible for maintaining animal records, husbandry records, and experimental records. Under the supervision of the University Veterinarian, the PI may be responsible for maintaining procedural and medical records and accurate drug usage logs.
- 4.4 The Animal Care staff or facility specific designate(s) (hereafter referred to as “Animal Care staff”) are responsible for maintaining environmental monitoring records. In consultation and collaboration with PI, project personnel, and the University Veterinarian, Animal Care staff is responsible for maintaining animal records, husbandry records, and experimental records as necessary.
- 4.5 Project Personnel in collaboration with PIs and Animal Care staff are responsible for maintaining animal records, husbandry records, and experimental records.
- 4.6 The University Veterinarian is responsible for overseeing the health and welfare of all research and teaching animals at UPEI. This includes maintaining medical records for all animals treated outside the scope of an approved AUP and maintaining accurate drug usage logs.

5.0 Codes of Practice

All records should be comprehensive, and readily accessible to investigators and project personnel, veterinary personnel, Animal Care staff, ACC members, auditors, and inspectors.

5.1 Animal Records

- i. Preferably, individual animal records should be kept. However, group (cage/tank) records may be kept for rodents, rabbits, fish and other small animals and herd records may be kept for some procedures for farm animals. Dogs, cats, horses and cattle must have individual animal records.
- ii. In any case where there is a health or welfare concern and animals can be uniquely identified, individual animal records should be kept. Tank or group records may be kept for aquatic animals that are maintained as a group and not uniquely identified.

- iii. Records should include:
- PI name and contact information
 - Protocol number
 - Arrival date and origin
 - Species and bred/strain/stock
 - Sex
 - Date of birth or age estimate
 - Colour/markings/identifying features
 - Clinical history
 - Prior experimental procedures (if applicable)
 - Previous housing and care (if applicable)
 - Breeding experience (if applicable)
 - Behavioural observations

5.2 Husbandry Records

i. Records of Daily Animal Observations

Observations should be recorded and initialed by the observer at the time of performance regardless of whether concerns are found. Any problems or concerns should be noted at the time of observation. Documentation that observation has occurred may occur at the room, herd, or individual level.

ii. Records for Food

In order to ensure fresh and adequate quantities, facility records must be maintained for the acquisition of food supplies. Records must include the expiration date of the food, and should include:

- Source/supplier
- Lot number
- Milling date
- Date of acquisition
- Nutrient content
- Quantity received

At the room level, records should include type and amount of food provided, the expiration date (if applicable), when the food package was opened, and any relevant observations or comments. Special food requirements should be noted on the cage/pen/tank cards and in feeding records.

- iii. Records for Water (Terrestrial Species)
If applicable, records should be kept of when water is dispensed. Water should be dispensed as close to the time of use as possible unless experiments to demonstrate shelf-stability have been performed.
- iv. Records for Bedding (Terrestrial Species)
At the facility level, records should be kept for the acquisition (delivery, type, and amount) and use of bedding. At the room level, records should indicate when bedding was changed.
- v. Cleaning and Sanitation Records
Facility and cage/enclosure/tank cleaning and sanitation should be performed per appropriate Facility SOP. Records of cleaning and sanitation should be kept including regular documentation of equipment performance (i.e. autoclave or cage washer temperature, cycle duration, etc).
- vi. Breeding Records
Good records are critical for proper management of breeding. Accurate records are required for the integrity of the offspring, to co-ordinate the breeding program with research requirements, and to manage the needs and number of animals in the program.

5.3 Medical Records

Medical records are required for all medical treatments that are not planned in an approved AUP. Where appropriate, group records may be acceptable and more efficient than individual records. However, all animals that receive unique health interventions or regular individual health evaluations should possess an individual medical record. Medical records must be as complete as possible and kept in accordance with the latest Canadian Association for Laboratory Animal Medicine (CALAM) Standards of Veterinary Care so that the care and course of treatment for animals can be reconstructed. Medical records may be documented on Clinical Case Forms (ACC-CT06 Reporting Animal Health and Welfare Concerns to Veterinary Staff) or in the animal's individual record. Veterinary care must be coordinated with Animal Care and the study PI to allow for potential adjustments in husbandry and procedures that might minimize the impact on the animal.

5.4 Experimental Records

Records must be complete, in an easily accessible form, in a location proximal to the subject, and be available for review by the University Veterinarian or representative, Animal Care personnel and ACC members. Experimental records should be maintained for a minimum of 3 years (7 years for large animals) after the termination of the experiment or the animal.

Experimental records must be sufficiently detailed that all procedures for an animal may be reconstructed. The level of detail required is directly proportional to the invasiveness of the protocol. Brief summaries of procedures and date performed should be made on the cage/pen/tank card but this should only be the secondary site of documentation. When experimental personnel are responsible for observations, they should be recorded and initialed by the experimental personnel at the time of performance regardless of whether concerns are found. Any problems or concerns should be noted at the time of observation.

For experimental procedures utilizing anesthetics, records must include:

- Pre and during anesthetic
 - Animal ID
 - Type of anesthetic
 - Dosage
 - Site and route
 - Use of anesthetics, analgesics, sedatives, or other medications
 - Depth of anesthesia
 - Vital signs
 - General condition (as appropriate to the study and approved by ACC)
- Procedure details
 - Either description of procedure or reference SOP, including deviations from SOP
- Post-operative recovery
 - Depth of anesthesia
 - Vital signs
 - General condition (as appropriate to the study and approved by ACC)
 - Administration of medications

When aquatic animals are not uniquely identified but utilized and assessed on a group or tank basis, then records may be kept for the anesthesia, procedures, and post-operative recovery of each group or tank.

Intervention points and endpoints should be clearly defined in an approved AUP (ACC Code of Practice Management of Pain and Distress in UPEI Animal Facilities). Where intervention points and endpoints are expected, the AUP should also contain predetermined monitoring frequency. Monitored signs and symptoms should be recorded at the prescribed frequency even if all signs and symptoms are normal. The monitoring and recording frequency may be increased if necessary to maintain animal well-being.

5.5 Water Quality Monitoring

Records of water quality monitoring and water treatment should be maintained by the Facility Manager and be available to necessary personnel as needed. Depending on the type of facility, site, and water source, water quality monitoring should be performed and recorded at least annually.

5.6 Environmental Monitoring

Environmental monitoring of animal rooms, other enclosures, or cages/pens/tanks should be recorded by Animal Care and the records maintained by the Facility Manager. It is recommended that potential disruptions (i.e. noise, vibrations, odours) also be recorded in case of future animal welfare problems. Environmental monitoring for terrestrial species may include:

- Temperature
- Humidity
- Photoperiod

Environmental monitoring for aquatic species may include testing water for the following parameters:

- Tank temperature
- Oxygenation
- Nitrogenous compounds
- pH
- Dissolved solids
- Gas saturation

6.0 References

- 6.1 ACC-CT06 Reporting Animal Health and Welfare Concerns to Veterinary Staff
http://files.upei.ca/research/sop-ct06-reporting_animal_health_welfare_concerns_to_veterinary_staff.pdf
- 6.2 CCAC Guidelines on: Husbandry of Animals in Science
<https://www.ccac.ca/Documents/Standards/Guidelines/CCAC-guidelines-on-husbandry-of-animals-in-science.pdf>
- 6.3 CCAC Guidelines on: the Care and Use of Fish in Research, Teaching and Testing
<https://www.ccac.ca/Documents/Standards/Guidelines/Fish.pdf>

- 6.4 Field K., Bailey M., Foresman L.L., Harris R.L., Motzel S.L., Rockar R.A., Ruble G. and Suckow M.A. (2007) Medical records for animals used in research, teaching, and testing: Public statement from the American College of Laboratory Animal Medicine. Institute for Laboratory Animal Research (ILAR) Journal 48(1):37-41.

<https://academic.oup.com/ilarjournal/article/48/1/37/690321>

- 6.5 CALAM Standards of Veterinary Care (2007)

<https://www.calam-acmal.org/resources/Pictures/StandardsVetCare.pdf>