PI-Directed Wildlife Training

Effective January 1, 2006, the Animal Care Committee (ACC) implemented Principal Investigator (PI)-Directed training for wildlife users. The necessary steps are outlined below. These will aid the Science Local Animal User Committee and Principal Investigators in fulfilling the Education Sub Committee's guidance on PI-Directed training as directed by the Canadian Council on Animal Care's Care and Use of Wildlife Guidelines.

Implementation of PI-Directed Wildlife Training.

A. A synopsis should be developed and given a name, by the Principal Investigator to address all pertinent training issues as outlined in the Animal Care and Use Guidelines for Investigations Involving Field Research on Wildlife.

B. The synopsis is to be submitted to the appropriate ACC to represent the PI-Directed component of the University of Manitoba Short Course on the Care and Use of Experimental Animals for approval. The corresponding Animal Use Protocol (AUP) will not receive approval until the PI-Directed Training Synopsis is approved.
   - Synopsis approval is synced with the protocol and is therefore valid for four years unless a major change is made.
   - If a synopsis is associated with more than one protocol, the approval is synced with the first protocol approval date.

C. As an indication of their understanding, the Certification of Delivery (COD) page of the document will be signed and dated by all personnel involved in the study and the Principal Investigator once the training in the field is complete. Copies of the signed COD page are forwarded to the Laboratory Animal Training Coordinator so that participation in these training exercises can be recorded in the LATC training database.

University of Manitoba Animal Care and Use Guidelines for Investigations

Involving Field Research on Wildlife

Purpose:
Investigators conducting wildlife research work with so many different species and employ such a diverse array of techniques, that a singular course presenting aspects of animal ethics and care pertinent to all such investigations cannot be developed. Principal Investigators (PIs) are responsible, however, for ensuring that all personnel involved in such work are aware of potential health risks to themselves, and are intimately familiar with not only the general principles surrounding the ethical use of animals in research (outlined in the Canadian Council on Animal Care - Guide to the Care and Use of Experimental Animals, and presented via mandatory completion of the University of Manitoba's, Animal User Training Course (online) in the ethical use of animals in research), but also those sundry matters that arise in the context of conducting research on their particular study species and/or study system. Researchers are urged to consult the CCAC guidelines: Wildlife (downloadable as a PDF at:
https://ccac.ca/Documents/Standards/Guidelines/CCAC_Guidelines-Wildlife.pdf
for a comprehensive consideration of factors that may merit consideration in conducting work with wildlife species. To that end, a list of topics based on those guidelines has been developed to aid each Principal Investigator in the development of a synopsis, which can be used as an instructional instrument for all personnel participating in their research program. A COD (provided on page 5) should be included as the final page of each synopsis.

Implementation:
The list on the following page presents topics, which must be reviewed by the Principal Investigator with all personnel working with wildlife. Specific risks, factors and or methodological considerations pertinent to the Principal Investigator's study species and system should be incorporated into that list to develop a synopsis for distribution to all personnel working on the research in question. As an indication of their understanding of the matters and/or techniques detailed under the topics presented in the synopsis, all research personnel should complete the COD page (included here as page 5) once the synopsis has been reviewed. The Principal Investigator shall sign the COD once the training in the field is complete. The PI shall retain those CODs on file and make those available for perusal by members of any site-visit committee during ACC and/or CCAC site inspections.

Training Database Documentation:
To ensure training records are up to date a signed copy of the COD must be forwarded to the Laboratory Animal Training Coordinator as per the instructions on the page.

Central Topics:

Adherence to governmental wildlife regulations

- provincial, state and/or federal

Health risks to personnel (see Field Safety Core Manual attached)

- predation, parasitism or disease risks (biohazards)
- drug or other equipment/procedural hazards
- other environmental hazards (UV, dehydration etc.)
- emergency preparedness (contact numbers, nearest first aid)
- Reference: University Manitoba of Field Safety Core Manual and appendices: http://umanitoba.ca/admin/vp_admin/risk_management/6701.html

General considerations

- Scientific activities conducted in the field must be designed with the welfare of the animals in mind and to minimize disturbance of the animals and their habitat.

Observational studies

- minimizing impact of observers

Capture

- methods of live capture
    - physical capture
        - equipment, weather, regulations
        - use of animal models or decoys, & lures
        - monitoring frequency
    - chemical capture
        - drug delivery

Restraint

- physical restraint and handling
    - training
- chemical restraint and anesthesia
    - pharmacological considerations
    - monitoring, supportive care, and recovery
    - drug residues

Marking

- visible identification marks
- telemetry devices
- tissue or pelage marking

Manipulation of animal's environment

- elements of deprivation (food, water, shelter, social contact)
- alteration of biotic factors (habitat, competition, predation, parasitism)
- manipulation of social factors (group composition, studies of communication)

Biological sampling and surgery

- collection of biological samples
- use of analgesics
- surgery

Transportation

- by road or air

Housing

- husbandry
- <24 hours or >24 hours
- nutrition
- social interactions
- health monitoring
- hygiene

Welfare assessments

- welfare indicators

Release of animals

- translocation
    - welfare & behavioural considerations
    - environmental and population considerations at the release site

Euthanasia

- acceptable versus unacceptable methods
- chemical and physical methods
- disposal of euthanized animals

Veterinary Care

- circumstances under which to seek consultation
- circumstances requiring emergency assistance
- contact numbers, location of local veterinarians

Remediation of Environmental Impact

- minimizing initial impact
- daily site management
- season end management and remediation

Certification of Delivery of a PI-Directed Wildlife Training Synopsis

Synopsis Title: _____
Protocol Number: _____

Certification

I,_____, hereby certify that I have read and understand the issues, techniques and cautions detailed under the topics presented in the synopsis titled as stated above. I thus knowingly accept any and all risks associated with the research undertaking, and will ensure that animals used in the context of said research are treated in a humane manner consistent with the guidelines of the Canadian Council on Animal Care, University of Manitoba Animal Care and Use Policy and Procedures documents, The Animal Behavior Society if applicable, any provincial or federal regulations that apply and the applicable Animal Care Committee.

Signed: _____

Date: _____

Signature Witnessed By: _____

Date: _____

I, the Principal Investigator on the above protocol hereby certify the above-named person has received appropriate training and is capable of handling and performing the necessary procedures on the animals identified in the syllabus as required.

PI Name:_____PI Signature: _____

Date: _____

Submit the signed copy of this Certification to the Laboratory Animal Training Coordinator at the University of Manitoba once training in the field has been completed.

Ms. Denise Borowski
Fax: 204 789-3914
Phone: 204 789-3960
E-mail: autp@umanitoba.ca

UNIVERSITY OF MANITOBA

Safe Work Practice 005: Field Safety Core Manual

Table of Contents

Introduction and Scope

The purpose of this Field Safety Core Manual and appendices are to standardize basic field safety precautions and safety training materials related to common hazards encountered in the context of field work. In regions where these precautions are appropriate this document is referenced as part of a PI-Directed Wildlife Training Synopsis submitted with an Animal Use Protocol Form. This manual is meant to be applied in regions in and around Manitoba but excludes work sites in arctic and marine environments. The document does not cover procedures specific to the research project documented in the Animal Use Protocol Form and Schedule 10 Risk Assessment.

It is the responsibility of the submitting Principal Investigator to ensure that research personnel under their supervision are trained on the safety information provided in this manual. If additional hazards are present as part of the proposed work they must be documented in a Schedule 10 submission. The worker supervisor must ensure that their research workers are fully trained regarding those additional hazards and control measures intended to limit the risks associated with those hazards.

The Field Safety Core Manual covers safety topics expected to be universal in all field research. Appendices further support the core manual with additional information added to suit a researcher’s field research conditions. Appendices will be added over time and as information becomes available and relevant.

How to Use this Manual – Field Work Risk Assessment

To use this manual review the leading questions below in the Field Work Risk Assessment and indicate the conditions and scope expected to be part of your field work. Those questions will be linked to the appendices that contain information relevant to the risks and mitigation strategies you may encounter in your field work. The core sections of the manual should be universally applicable and the appendices are specific to the field research conditions and scope. There is no way to cover everything in one manual so project specific standard operating procedures may be required to cover unusual or unanticipated conditions or scopes. If you have questions please contact the University of Manitoba Animal Care Occupational Health Specialist or Biological Safety Officer in Environmental Health and Safety. The main office number is 204-474-6633.

Field Work Risk Assessment

Check all that apply and refer to the indicated appendix:

Scope and Conditions		Applicable Sections
Do you work in the field?	☐ Yes ☐ No	Field Safety Core Manual
Do you work in hot conditions?	☐ Yes ☐ No	Appendix 1: Heat Stress
Do you work in cold conditions?	☐ Yes ☐ No	Appendix 2: Cold Stress
Will you encounter mosquitos or Ticks?	☐ Yes ☐ No	Appendix 3: Insects and Infectious Diseases
Do you work in/on/around water?	☐ Yes ☐ No	Appendix 4a: Working in and Around Water Appendix 4b: Working from Boats
Do you handle animals directly?	☐ Yes ☐ No	Appendix 5: Zoonotic Diseases
Do you use hazardous chemicals or motor vehicles?	☐ Yes ☐ No	Appendix 6: Environmental Emergency Response
Are you likely to encounter wild plants or animals?	☐ Yes ☐ No	Appendix 7a: Hazardous Plants Appendix 7b: Hazardous Animals

Field Safety Core Manual

Substance Abuse on the Job

Do not engage in substance abuse while at work. The consumption of alcohol and recreational drugs vastly increases the potential for a hazardous incident at work. The University's Substance Abuse Procedure section 2.4.1 categorizes substance abuse on the job as "serious misconduct worthy of dismissal". It is against the law to operate motor vehicles of any kind while impaired by an intoxicating substance. Motor vehicles include but my not be limited to cars, trucks, all-terrain vehicles, snowmobiles and boats.

Substance Abuse and/or Dependency Policy
http://umanitoba.ca/admin/governance/governing_documents/staff/1231.html
Substance Abuse and/or Dependency Procedure
http://umanitoba.ca/admin/governance/governing_documents/staff/1235.html

Field Hygiene

Field hygiene is intended to provide minimum measures to allow workers to clean and decontaminate themselves after performing work. This is to reduce the risk of exposure to hazardous substances that may be encountered in the field. Examples of hazardous contaminants can include zoonotic pathogens carried by animals directly handled by workers, chemicals such as gas, or oil from equipment and vehicles, or soil/water that may hold pathogens or chemical contaminants.

Waterless hand sanitizer - To disinfect hands it is common for workers to use waterless hand sanitizer to kill pathogens on the skin. The active ingredient in these products is commonly alcohol based it can kill a spectrum of pathogenic microorganisms. Hand sanitizer is not effective against resistant pathogens and does not remove chemical contaminants. It is suitable for use when pathogens are the primary concern as a temporary measure until more thorough measures can be used.

Soap and water hand wash – To decontaminate skin fore thoroughly a soap and water hand wash is the most effective means to use. It works by removing contaminants including pathogens and chemicals from the surface of the skin and washing them away. It is more difficult to accomplish this in a field setting because of the weight and bulk of water needed to accomplish the job. Keeping water, soap and a hand washing basin in a vehicle is the most practical way. Water can be carried in repurposed 2 liter soft drink bottles or milk jugs, a basin can be as simple as a medium sized Rubbermaid container and regular liquid soap is best.

Change of clothes – If it is expected that clothing could become contaminated in the course of work performed in the field workers should be provided protective equipment to cover their clothes such as coveralls which can be removed when contaminated. Alternately workers can be required to carry a change of clothes in the event that their work attire is accidentally contaminated.

The Manitoba Workplace Safety and Health Regulation M.R. 217/2006 Part 4 sections 4.10, 4.11

First Aid and Emergency Response

First aid and emergency response plans must be established to ensure that workers can be adequately treated or evacuated in case of injury or other emergency (forest fire, flood or other hazardous environmental condition). The numbers of first aid kits and responders will vary based on the number of workers at the work site and the location of the workplace. Those requirements are laid out in the most current revision of The Manitoba Workplace Safety and Health Regulation M.R. 217/2006.

First Aid Kit Provision

First aid kits must be made available according to the following table found in section 5.12 (1) of The Manitoba Workplace Safety and Health Regulation M.R. 217/2006

TABLE	
Total number of workers employed at workplace	Number of first aid kits that must be provided at workplace
24 or fewer	1
25 to 50	2
51 to 75	3
76 or more	4

In respect of the number of first aid kits that must be provided under subsection (1), a vehicle, boat or aircraft used by an employer to transport one or more workers is deemed to be a workplace, and the number of workers employed at that workplace is deemed to equal the seating capacity of the vehicle, boat or aircraft. An employer must ensure a personal first aid kit that meets the requirements set out in Schedule B to this Part is provided to a worker who works alone and who does not have ready access to a first aid kit required to be provided under subsection

First Aid Kit Contents

The contents required in first aid kits are described The Manitoba Workplace Safety and Health Regulation M.R. 217/2006 Schedule B (First Aid Kits) which is copied below.

1 A first aid kit must contain the following items:

(a) general:

(i) a recent edition of a first aid manual,

(ii) a pair of impervious disposable gloves,

(iii) a disposable resuscitation mask with a one-way valve,

(iv) a disposable cold compress,

(v) 12 safety pins,

(vi) splinter forceps,

(vii) one pair of 12 cm bandage scissors,

(viii) 25 antiseptic swabs,

(ix) waterless hand cleaner,

(x) waterproof waste bag;

(b) dressings - each of the following items must be sterile and individually wrapped in order to maintain sterility:

(i) 16 surgical gauze pads (7.5 cm squares),

(ii) 4 pads (7.5 cm X 10 cm, non-adhesive),

(iii) 32 adhesive dressings (2.5 cm wide),

(iv) 2 large pressure dressings,

(c) bandages:

(i) 3 triangular bandages (1 m each),

(ii) 2 conforming bandages (10 cm each),

(iii) 2 rolls of 2.5 cm adhesive tape,

(iv) 1 roll of 7.5 cm elastic adhesive bandage,

(v) 2 rolls of 7.5 cm tensor bandage.

Content of personal first aid kit

2 A personal first aid kit must contain the following items:

(a) 10 sterile adhesive dressings, assorted sizes, individually packaged;

(b) five 10 cm X 10 cm sterile gauze pads, individually packaged;

(c) a 10 cm X 10 cm sterile compress dressing, with ties;

(d) five antiseptic cleansing towelettes, individually packaged;

(e) a cotton triangular bandage;

(f) a waterproof waste bag;

(g) a pair of impervious disposable gloves;

(h) a roll of 2.5 cm adhesive bandage tape.

First Aid Providers

First aid providers must be made available according to the following table found in section 5.5 (1) of The Manitoba Workplace Safety and Health Regulation M.R. 217/2006

TABLE 1		
	Close Workplace	
Number of workers per shift	Low hazard work	Other work
1 to 10	-	-
11 to 40	FA1	FA2
41 to 100	FA1	2 FA2s
101 to 199	2 FA1s	2 FA2s
200 or more	3 FA1s	3 FA2s

TABLE 2		
	Distant workplace	
Number of workers per shift	Low hazard work	Other work
1 to 10	-	FA1
11 to 40	FA1	FA2
41 to 100	FA1	2 FA3s
101 to 199	2 FA1s	2 FA3s
200 or more	3 FA1s	3 FA3s

TABLE 3		
	Isolated Workplace	
Number of workers per shift	Low hazard work	Other work
1 to 10	FA1	FA2
11 to 40	FA1	FA3
41 to 100	2 FA1s	2 FA3s
101 to 199	2 FA1s	3 FA3s
200 or more	3 FA1s	4 FA3s

Close, Distant and Isolated Workplaces are defined in Part 1 Definitions and General Matters The Manitoba Workplace Safety and Health Regulation M.R. 217/2006 as follows:
"close workplace" means a workplace from which, under normal travel conditions and using the means of transportation used at the workplace in an emergency, an ill or injured worker can be transported to a medical facility in 30 minutes or less.
"distant workplace" means a workplace from which, under normal travel conditions and using the means of transportation used at the workplace in an emergency, an ill or injured worker can be transported to a medical facility in two hours or less.
"isolated workplace" means a workplace (a) that is normally accessible only by air; or (b) from which, under normal travel conditions and using the means of transportation used at the workplace in an emergency, an ill or injured worker cannot be transported from the workplace to a medical facility within two hours or less.

If a workplace has hazards which are not adequately addressed by the provision of first aid systems described above then an employer must provide the additional first aid services that are determined to be appropriate. M.R. 217/2006 part 5.7

Contacting Emergency Responders

Police, fire department and ambulance are most commonly reached by calling 9-1-1.

It is important to note that 9-1-1 coverage in Manitoba is not universal. 9-1-1 service is offered throughout the province but municipalities must subscribe to the 9-1-1 service. If the municipality has subscribed to the service dialing 9-1-1can put you in contact with local emergency services. If the municipality has not subscribed to 9-1-1 you may need to use another number to reach local emergency services. Visit Province Wide Enhanced 9-1-1 Service (e9-1-1) to see if this service is available in your municipality. Before a hazardous situations or incidents occur workers should have contact information that can put them in touch with the appropriate assistance or emergency responders.

When you dial 9-1-1 from your wireless phone or smartphone your call will be routed to the 9-1-1 emergency operator in your current area. A 9-1-1 operators with be able to see your wireless number and the location of the cellular tower handling your call. The cellular tower may be a long distance from where you are located but if you are calling from a wireless phone that has the Assisted-Global Positioning System (A-GPS) the emergency service operator will be able to better determine your approximate location.

Calls to 9-1-1 like any calls from a wireless phone are affected by a number of factors including the battery power of the phone, signal strength, and network availability. You can only make 9-1-1 calls from a land line, phone or smartphone. Text messaging (SMS) to 9-1-1 is not supported and will not connect you with a 9-1-1 operator.

For more information see: https://www3.bellmts.ca/mts/support/wireless/safety/wireless+e9-1-1

Working Alone or in Isolation

According to The Manitoba Workplace Safety and Health Regulation M.R. 217/2006 working alone means the performance of any work function by a worker who is the only worker for that employer at that workplace at any time. That worker is not directly supervised by the employer, or another person designated as a supervisor by the employer, at any time. Working in isolation means working in circumstances where assistance is not readily available in the event of injury, ill health or emergency.

The University has a Working Alone Procedure which identifies the institution's expectations and commitments to the section on working alone in M.R. 229/2015. The procedure can be found here: http://umanitoba.ca/admin/governance/governing_documents/staff/839.html

Even if workers are working in pairs or groups they could be considered to be working in isolation. Especially if potentially hazardous incidents are likely to occur which would overwhelm the abilities of those workers to cope with the incident without outside assistance. When work conditions meet those criteria a documented safe work plan must be in place to mitigate undue risk to workers. Those workers must also be trained on the plan and demonstrate competency and follow the plan as established by the worker supervisor.

Risk Assessment

The employer is responsible for identifying potential risks in the workplace or which arise from conditions and circumstances where workers work alone or isolation. Appendix A of the University Working Alone Procedure can assist you in your risk assessment documentation. That document can be found here: http://umanitoba.ca/admin/governance/media/workingalone_appendixA.pdf

The following components should be included to develop and implement safe work procedures to reduce the identified risks to workers working alone or working in isolation:

Risk Mitigation

When risks have been identified then plans must be put in place to reduce or eliminate the risks to the greatest extent possible. Appendix B of the University Working Alone Procedure can assist you in documenting your safe work procedures for working alone or in isolation. That document can be found here: http://umanitoba.ca/admin/governance/media/workingalone_appendixB.pdf

Communication

Workers must be equipped with communication systems according to The Manitoba Workplace Safety and Health Regulation M.R. 217/2006 Part 9.3(2). Communication systems must be radio, telephone, cellular phone or other effective means.

The communication must include any of the following:

- A system of regular contact by the employer (or their designate) and the worker
- Limitations or prohibition of specified activities
- Training

It is strongly recommended that a system of regular contact is in place to verify that workers who are working in remote or isolated locations are safe. It is imperative that there is an emergency response plan in place should efforts to contact the worker fail.

Provision of Emergency Supplies

If workers in a remote location are required to temporarily shelter in place without outside assistance they must be equipped with emergency supplies. Situations that may make this necessary can include inclement weather which makes travel too dangerous or vehicle breakdowns which leave workers stranded.

A good reference document to help you prepare your emergency supplies is Public Safety Canada's "Your Emergency Preparedness Guide". It provides guidance on 72 hour survival measures and can be found here: https://www.getprepared.gc.ca/cnt/rsrcs/pblctns/yprprdnssgd/yprprdnssgd-eng.pdf

Emergency Evacuation

Although it is not specifically stated in regulation that an emergency evacuation plan must be established it is recommended especially in areas where access may be complicated or delayed. If you are working in an area where it will take a long time for you to get to a hospital or for emergency responders to get to you it would be a good idea to have a plan to deal with an emergency ahead of time instead of trying to work it out on the day. You should include complicating factors in your plan as well. For example if your evacuation route includes crossing bodies of water, what do you do if water conditions are unsafe? What if you are using unimproved roads to access a site and heavy rains hit making the road too muddy to drive? Situations like these that can make it unexpectedly difficult to get help and they should be accounted for wherever possible.

An emergency evacuation plan should include the following information.

- Routes – how do you get in and out of your work site
- Destinations – where are you going in an emergency? Identify the closest hospital, fire and police stations
- Phone Numbers – contact information for the emergency responders you need (police, fire, ambulance, conservation etc.) don't assume 911 will work everywhere.
- Vehicles – what mode(s) of transport will you be using to evacuate?

After all these plans are developed workers should know them and how to use them. In certain scenarios you may need to share this information with emergency responders if you need them to come to your site.