



# Curtin University Standard Operating Procedure

## CAPTURE OF WILDLIFE FOR RESEARCH PROJECTS REQUIRING LONG AND SHORT TERM HOLDING

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**Purpose:** Any animal which is to be captured for wildlife research at Curtin University is to be assessed for their general health to ensure it is healthy before capturing, then removing, them from their environment and placing them in a research trial. This standard operating procedure (SOP) provides parameters which need to be assessed for each animal captured before inclusion in a research project.

### Scope:

This standard operating procedure applies to all researchers and students of Curtin University intending on capturing wildlife for the purpose of transporting them back to the university and involving them in a research project.

This Standard Operating Procedure uses the guidelines set out in the Australian Code of Practice for the care and use of animals for scientific purposes, 2013 (The Code) for the use of wildlife in research. A copy of the code can be found on the National Health and Medical Research Council Website (<http://www.nhmrc.gov.au/guidelines>). In Western Australia, a licence to use wildlife is required and can be obtained through DPAW.

### Definitions:

**Wildlife:** any animal, bird or living creature which lives in a natural undomesticated state.

**Healthy:** an adjective used as a term to describe a situation or condition such as

1. In good physical or mental condition,
2. Beneficial to health
3. Suggestive of good health
4. Functioning well



Animal Handler/ Researcher: any person involved in handling animals as part of the research project

Capture Myopathy: A potentially fatal condition induced into animals when they are captured and subsequently put under stress (Environmental Evidence Australia)

## Approved Methods

### a. Capture:

Capture of animals must be done in a safe and timely manner for all wildlife and researchers. SOPs on the Department of Parks and Wildlife website gives full details on the different methods used to capture these animals and include:

- i. Cage Traps – a wire mesh cage trap with a weight sensitive plate which springs the door closed when triggered.
- ii. Dry Pitfall capturing: Pitfall traps are plastic buckets or PCV piping put into holes into the ground and animals which come along fall into the trap and cannot get up. They are non-species specific. They are best for invertebrates, small mammals, reptiles, and frogs.
- iii. Elliot traps – these Elliot traps (Elliott Scientific, Upwey, Victoria) are used for the live capture of small to medium sized animals. They operate by a treadle plate mechanism whereby the animal steps on the weight sensitive plate which springs the door closed.

Full details of these methods are available on the DPAW website:

<http://www.dec.wa.gov.au/content/view/5389/2237/>

### b. Transport

Animals which fulfil the health requirements will require transport back to the university, and this must be considered when planning on the capture of wildlife. It must be done in a manner which is suitable for the animals' size, safety, and to minimise the negative impact on its welfare. It must also be safe for the researcher or animal handler whilst transporting the animal as well. Thus the type of cage or restraint in the car or van must be well thought-out and approved by the Animal Ethics Committee (AEC).

Considerations include

1. species
2. size
3. amount of wildlife being captured
4. type of containers available and suitable

Detailed guidelines can be accessed on the DPAW website.

### c. Facilities to House Wildlife

Appropriate facilities must be available to house the animals once back at the university. Prior planning and approval from the AEC and research supervisors must be obtained. Facilities may be available in the Animal Building 300, in the laboratories, or in the Field Trial area but they must be approved and ready before the animals are collected. For



many wildlife, the holding areas must be of appropriate size and also be as similar to their natural environment as possible. Researchers must investigate and plan this thoroughly and have the approval of the AEC before collecting the animals. The length of time the animal is to be kept will also need to be taken into consideration when designing the plan.

## **Outline:**

### **Task 1**

Capture the animal using one of the above methods

### **Task 2**

Examine the animal using the Wildlife Assessment Form 13 as guidelines to assess its health status

### **Task 3**

Determine an overall level of health of the animal using your form, then decide whether the animal is healthy enough to be transported back to the university to take part in the project.

The use of animals in poor condition should be avoided for experimental purposes and thus animals unsuitable for experiments should be released immediately. However, if the animal requires first aid, please use the DPAW SOP First Aid for animals available on the DPAW website. Animals captured with severe injuries/illness resulting in significant pain or distress, with little prospect of recovery, should be euthanized. See the DPAW website for guidance.

## **Level of Impact**

The wildlife captured and used for scientific research will undergo stress when captured, transported and held at Curtin University. Measures should be taken to minimise the stress on these animals, and by ensuring they are as healthy before removal, will assist with this process.

Animal welfare considerations of capturing these animals include:

1. capture myopathy in macropods
2. trauma to the animal
3. hypothermia
4. starvation
5. dehydration
6. hyperthermia
7. stress
8. Type of research
9. Are they able to be returned back to their original environment at the conclusion of the experiment?



## **Ethical Considerations**

There are a range of ethical considerations with all projects involving the use of wildlife at Curtin University which need to be approved by the Animal Ethics Committee (AEC). These include:

- a. Biological and Behavioural Requirements of the Wildlife – the individual requirements of each species to be researched must be considered and the appropriate handling and containment instigated.
- b. The fate of the animals at the conclusion of the research. If they are to be returned to the wild, they must be returned to the place of capture, and at a time where their species is most active.
- c. Duration of Transport.
- d. Capture myopathy – Certain species eg macropods are prone to this condition which is a syndrome which often develops after restraint of wild animals. Affected animals may die acutely from lactic acidosis or may live several days and show muscular stiffness or become recumbent. Careful handling and reduction of stress are useful; IV fluids and sodium bicarbonate may help but prevention is better than cure (Merck Veterinary Manual, 2011)
- e. Pouch Young – If it is found that a captured animal is carrying young, then the animal should not be kept for any research project. Sometimes this cannot be determined at the time, however if it turns out to have young- they should be returned to the wild as soon as possible.
- f. Injuries or unexpected deaths during the transport or containment of these animals. Any unexpected or adverse events must be reported to the AEC as soon as possible (within 24 hours if possible) and measures taken to try and reduce the likelihood of recurrence.
- g. Spread of disease or parasites. All measures must be taken to prevent the spread of disease or parasites either to the university or back to wild after they are released. Good hygiene measures should be carried out at all times, and any animals showing obvious signs of disease should not be transported back to the University.

## **Competencies and Approvals**

Must have the following competencies

1. Safe capture of the animal
2. Safe handling of the species
3. Animal welfare Module 1, Curtin University
4. Safe transport



The whole project must be approved by the Curtin University AEC.

## References:

Australian code of practice for the care and use of animals for scientific purposes, 2004 edition, National Health and Medical Research Council

Environmental Evidence Australia Website:

<http://environmentalevidence.com/glossary/7#letterc>

Richter, V. and Freegard, C (2009). First aid for animals, Standard Operating Procedure 14.2. Department of Environment and Conservation, Conservation Service Biodiversity. Perth, Western Australia.

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Freegard, C. And Richter, V. (2009) Animal Handling / Restraint using soft containment, Standard Operating Procedure 10.1 Department of Environment and Conservation, Conservation Service Biodiversity. Perth, Western Australia.

Kahn, C.M., Line S., et al (2011) Merck Veterinary Manual 9<sup>th</sup> Edition, Merck Sharp & Dohme Corp., Whitehorse Station.