

SECTION 5 WILDLIFE STUDIES

Section 5 makes particular reference to free-living vertebrates and those captured from freelifving populations, including native, non-indigenous and vertebrate pest species. It should be read in conjunction with the rest of the Code.

All scientific and teaching activities involving wildlife require AEC approval.

5.1 WILDLIFE FROM NATURAL HABITATS

- 5.1.1 Many species of wildlife are protected by State or Territory laws. Officers of the relevant State or Territory conservation authorities must be consulted when these species are required. Permits incorporating conditions are usually necessary to collect, keep, release and kill protected fauna, and to transport such species between States and Territories.
- 5.1.2 Observational studies of free-living animals have the potential to cause adverse effects because of interference with normal behaviour, particularly if there is an effect on the rearing of young. Such studies must be designed to minimise any impact on animal wellbeing.
- 5.1.3 Animals should not be taken from natural habitats unless animals bred in captivity are unavailable or unsuitable for the scientific purpose.
- 5.1.4 Investigators and teachers must recognise that field studies may cause disturbance to the habitat and adversely affect the resources available to both target and non-target species. Efforts must be made to minimise such potential disturbance.
- 5.1.5 Studies must not be repeated unnecessarily. Where repeated studies are proposed, AECs must decide whether repetition is necessary for enhancing the understanding and management of the species or ecosystem.
- 5.1.6 Reuse of individual animals requires AEC approval (see 3.3.11). However, the nature of wildlife field studies may require, or result in, recapture of individual animals. Measures should be put in place to minimise the effects of this.
- 5.1.7 The capture, holding, transportation, handling and release of animals from their natural habitat must be in accordance with the following:
 - (i) investigators and teachers must be aware that the effects of a series of stressors, such as trapping, handling, transportation, sedation, anaesthesia, marking and sampling can be cumulative;
 - (ii) an assessment of the potential sources of stress and how they will be eliminated or minimised must form part of the proposal; and
 - (iii) all materials and equipment used in the capture, holding, transportation and manipulation of animals must be cleaned and maintained in a way that minimises the assessed risk of disease transmission.

5.2 CAPTURE OF WILDLIFE

General

- 5.2.1 Capture is stressful to animals and alternatives should be considered. Steps must be taken to minimise any distress caused to the captured animals and to

the populations from which they are taken. The following conditions apply to capture:

- (i) there must be careful choice of suitable capture techniques;
- (ii) personnel must be skilled in the capture techniques;
- (iii) if animals are to be retained after capture, they must be provided with safe enclosures or caging suitable for the species; and
- (iv) animal wellbeing must be protected by regular assessment of signs of distress and remedial action taken as necessary.

5.2.2 For catching and killing fish, practices that ensure a rapid loss of consciousness should be used wherever possible.

Use of traps

5.2.3 If capture is to be by trapping, the proposal must include details of the suitability of the trapping technique for the species and how the traps will be managed to minimise the impact on both target and non-target species. The proposal should take into account issues such as:

- (i) the time animals will spend in traps;
- (ii) protection of animals from predators or parasites;
- (iii) protection from environmental effects such as dehydration, hypothermia and drowning;
- (iv) deprivation of food and water;
- (v) potential for impact via disruption of social structure;
- (vi) potential for impact on dependent young;
- (vii) deactivation of traps when not in use or no longer required;
- (viii) size of trap;
- (ix) construction of trap (for example, conformation of the walls, lids, covers or grids);
- (x) minimisation of the numbers of non-target species trapped; and
- (xi) a management plan, in compliance with relevant legislation, for non-target species captured.

5.2.4 Traps and nets used to capture animals in water must be set and monitored to prevent drowning.

5.2.5 Wet pitfall traps must not be used for the capture of vertebrate animals. If they are used for the capture of invertebrates, they must be managed to minimise the inadvertent capture of vertebrates.

Non-trap capture

5.2.6 Principles applicable to non-trap capture techniques are similar to those detailed above for traps. The skill of the operator is essential to ensure minimal impact on target and non-target species.

5.2.7 Electro-fishing may be used as a capture technique only by people with training that covers both animal welfare and human safety aspects. Any impact on non-target species must be minimised.

5.3 HANDLING AND RESTRAINT OF WILDLIFE

5.3.1 Captured free-living animals are to be handled using techniques and timing appropriate to the species. Procedures should incorporate the following to minimise the risk of injury or stress-induced disease:

- (i) skilled handling in a quiet environment;
- (ii) limiting the time of handling and restraint to the minimum needed to achieve the scientific or educational objectives;
- (iii) using sufficient competent persons to restrain animals and prevent injury to either animals or handlers; and

- (iv) using chemical restraint such as tranquillisation, where appropriate, if the period of handling is likely to cause undue stress to animals.

5.3.2 Wherever possible, the long-term and short-term consequences of capture, handling and restraint should be recorded.

5.4 HOLDING AND RELEASE OF WILDLIFE

5.4.1 The time for which an animal is held should be minimal and consistent with the achievement of scientific or educational objectives.

5.4.2 Animals must be held in a way that minimises stress and injury. Investigators and teachers must base management practices for captured animals on available information about the normal behaviour of the species and the likely response to captivity.

5.4.3 Holding areas and containers must be safe, quiet and hygienic.

5.4.4 Close confinement devices such as bags and crates must:

- (i) allow animals to rest comfortably;
- (ii) minimise the risk of escape and injury;
- (iii) be adequately ventilated;
- (iv) maintain animals within appropriate levels of ambient light, temperature and humidity; and
- (v) minimise the risk of disease transmission.

5.4.5 Animals should be released at the site of capture unless the AEC approves a proposal outlining reasons why an alternative site is preferred.

5.4.6 Time of release must be consistent with the usual active time of the species.

5.4.7 All reasonable steps must be taken at the time of release to protect animals from injury and predation.

5.5 TRANSPORTATION OF WILDLIFE

5.5.1 Animals captured in the wild are particularly susceptible to the stress of transportation and all reasonable steps must be taken to minimise this. The general principles for transportation detailed in Section 4.2 of the Code apply, and particular reference should be made to the International Air Transport Association (IATA) Live Animals Regulations.

5.5.2 Stress during transportation should be minimised by:

- (i) the use of appropriately-sized, designed and constructed transportation containers;
- (ii) limiting exposure of animals to extremes of temperature, noise, visual disturbance and vibration;
- (iii) providing, if appropriate for the species, an inner shelter within the transportation container;
- (iv) ensuring that animals are separated where there is incompatibility of species, age, size, sex or reproductive status;
- (v) preventing unnecessary handling; and
- (vi) the administration of tranquillising agents by skilled personnel, where appropriate.

5.6 TRANSPORTATION OF WILDLIFE

- 5.6.1 The method chosen to identify individual animals must be that which causes the least distress and interference with the normal functioning of the animal within the context of the scientific purpose. Identification of individual animals by wildlife carers requires AEC approval if performed for scientific purposes, but not if performed for routine husbandry.

5.7 FIELD TECHNIQUES

- 5.7.1 Minor procedures in the field often involve only capture and release of animals, possibly facilitated by tranquillising or short-acting anaesthetic agents. Such procedures include identification (for example, leg banding, ear tagging, microchipping, and radiotracking devices placement), examination, measurement and sampling (for example, hair, feathers, scales, blood, and stomach contents of birds). Such procedures may be carried out, subject to AEC approval, only if the following requirements are met:
- (i) the procedures must be performed in a clean area by competent persons, using clean equipment;
 - (ii) equipment and agents necessary to provide for the health and welfare of the animals and relief of pain or distress must be readily available;
 - (iii) sedated or anaesthetised animals should experience uneventful recovery to full consciousness in an observation area where they are able to maintain normal body temperature and are protected from injury and predation;
 - (iv) the potential impact of the procedures on dependent young is minimised:
and
 - (v) the methods and equipment used are appropriate to the species and cause the least distress and interference with normal behaviour.

5.8 VOUCHER SPECIMENS

- 5.8.1 Optimal use of voucher specimens requires that they become part of a publicly accessible reference collection. Therefore:
- (i) if it is anticipated that voucher specimens may be taken, the need to do so must be justified to the AEC;
 - (ii) numbers of voucher specimens taken must be the minimum required for identification or to establish distribution;
 - (iii) consultation with a museum or similar institution must take place before collection to ensure the use of proper preservation and holding techniques, the availability of necessary equipment and the collection of essential data;
 - (iv) voucher specimens should be lodged with a museum or similar institution where they are made available for further study; and
 - (v) proper documentation of the specimens, including reasons for collection, is essential. Data should be maintained with the specimens.

5.9 STUDIES OF WILDLIFE INTERACTION

- 5.9.1 Studies of wildlife interaction may involve work in the field or the laboratory and can include interaction between species (for example, predator-prey), within species (for example, competition) and between species and habitat.

- 5.9.2 The primary ethical considerations with studies of wildlife interaction are the degree of manipulation required to set up the interaction and the effect of the observer(s) on the interaction.
- 5.9.3 Efforts should be made to reduce animal usage (for example, by employing modelling theory).
- 5.9.4 Field studies should include an assessment of the wellbeing of animals not included in the project, including other species that may be influenced by the manipulation.
- 5.9.5 In studies of predatory encounters, unstaged natural encounters in the field should be used wherever possible.
- 5.9.6 Models should be used wherever possible instead of live animals if staging is required in studies of predatory encounters.

5.10 STUDIES OF WILDLIFE INTERACTION

- 5.10.1 All principles set out in the Code apply equally to animals considered to be pests.
- 5.10.2 The primary purpose of studies involving vertebrate pest animals is often to measure the efficacy of methods of killing or control. Proposals to an AEC to perform such studies must include sufficient information for the AEC to assess the potential benefits in relation to the adverse impact on both the target and non-target animals.