Agriculture Notes

Code of practice for the welfare of wildlife during rehabilitation

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Introduction

1. ***The purpose of the Revised Code of Practice for the Welfare of Wildlife during Rehabilitation (the Code) is to ensure the welfare of animals undergoing all stages of wildlife rehabilitation. It also provides an ethical guide to wildlife rehabilitators on wildlife rehabilitation and outlines responsibilities of those involved. The Code is incorporated under the Prevention of Cruelty to Animals Act 1986.***
2. Wildlife rehabilitation is defined as caring for injured, sick, or orphaned native animals and providing access to veterinary assessment and treatment where required, then nursing care and support, with the goal of restoring them to their natural condition and habitat.
3. For the purposes of the Code, wildlife is defined as any animal of a vertebrate species, other than humans or fish, which is indigenous to Australia or its territorial waters. It is an offence to keep pest animals (as defined under the Catchment and Land Protection Act 1994) and these must be humanely euthanased if brought to a shelter. Introduced species should also be humanely euthanased. Domestic animals such as dogs and cats must be taken to a pound.
4. All wildlife in the state of Victoria is protected under the **Wildlife Act 1975**. A Wildlife Shelter Permit (permit) is required from the Department of Sustainability and Environment (DSE) for the purposes of wildlife rehabilitation. Potential wildlife rehabilitators need to demonstrate that they have acquired appropriate training, either through accredited courses or recognised informal training seminars, or can show acquisition of the required knowledge through prior experience or employment.

Principles

1. Wildlife rehabilitation is generally viewed by the community as an ethical obligation to assist wild animals found in pain or distress, particularly if as a result of human interference (for example road trauma, pet predation, or oil spills).
2. The work of wildlife rehabilitators contributes to conservation through research, community education and promotion of a respect for animals. However, rehabilitation has limited benefit for biodiversity conservation, as the majority of animals treated in shelters are common species and low survival rates upon release have been reported for some species.
3. The primary goal of wildlife rehabilitation is to facilitate animal welfare both during the rehabilitation process and upon release. Animals must be euthanased if they are considered unlikely to recover sufficiently to return to the wild, or if there is uncertainty regarding a release site (for example, if the factors that led to the original condition were to pose an unacceptable risk to the animal again upon its release).
4. Animals should be returned to suitable habitat in the general vicinity from which they were collected (exceptions may be ocean going seabirds or migratory species). Habitats have a carrying capacity for particular species, and most occupied sites tend to function at capacity level. The relocation of wildlife to new areas is not permitted where there is the potential for genetic problems, the spread of disease, or competition for food and shelter with the existing wild population.
5. Captivity can place significant stress on wildlife. Extended periods in captivity can result in loss of survival skills, and the risk that the animal's living space in the wild will be occupied by another member of the species. Wild animals are opportunistic and new individuals will rapidly attempt to fill available niches. Wildlife rehabilitators should aim to release adult animals from shelters as quickly as possible. A life in captivity is not a reasonable option for rehabilitated animals, other than in exceptional circumstances.
6. The hand rearing of juveniles needs particular consideration. Hand reared animals may lack the survival and behavioural skills of those born in the wild, and may be disadvantaged when competing for food, shelter and territory. Juveniles do not have an established home range to return to when raised in

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captivity, and familiarity with humans and domestic pets can result in an increased susceptibility to predation.

7. Before attempting to rehabilitate an animal in an area where population reduction is currently authorised for that species, the long-term welfare of the individual must be carefully considered. The stress of the treatment must be justified in view of habitat suitability, resource availability and potential for future population management at the release site.
8. A wildlife rehabilitator should strive to achieve high standards of animal care through knowledge and an understanding of the field. Continuing efforts must be made to keep informed of current rehabilitation information, methods and regulations. Membership of animal welfare and wildlife rehabilitation organisations is encouraged.
9. To facilitate optimum results for animal welfare, rehabilitators are also encouraged to cooperate in the sharing of information and resources. Some shelters may have better facilities or experience with certain species, or there may be the opportunity to rehabilitate an animal elsewhere in the company of its own species.
10. Rehabilitators should acknowledge their limitations and enlist the assistance of a veterinarian or a more experienced rehabilitator when appropriate.

Case assessment

1. Upon collection, animals must be assessed accurately and without delay by a person who is knowledgeable in the particular requirements of the species (a veterinarian if possible, or an experienced wildlife rehabilitator). At all stages of the rehabilitation process, animal welfare should be the primary objective.

- Where the animal is found to be suffering from significant pain, distress, trauma or disease that cannot be relieved, it must be promptly euthanased.
- Where the animal would not survive without extended treatment or surgery, and is unlikely to recover sufficiently to return to the wild, it should be promptly euthanased.
- Where there is uncertainty regarding the suitability of a release site (see below for details) the animal should be humanely euthanased.
- If there is a reasonable expectation that the animal can be successfully rehabilitated and released to its own environment, the wildlife rehabilitator should ensure that he/she has the capacity to provide for the captive needs of the animal. For example, experience with the particular species, suitable housing, and access to species specific social groups where relevant.

2. Conditions which could preclude successful rehabilitation and release include:

- Loss of limbs or function of limbs, including tails
- Permanent vital sensory loss (hearing, sight, smell, feeding)
- Untreatable infectious disease
- Permanent damage to the nervous system
- Inability to adjust to temporary captivity
- Chronic ill health
- Imprinted behaviour patterns.

3. The following considerations are important when assessing a release site:

- The release site should be suitable habitat in the general vicinity from which the animal was originally collected. For instance, if an animal were found injured on a highway, an area of bushland adjacent to the highway would be a suitable release site. Exceptions may be ocean going seabirds or migratory species.
- There should be an available home range for the animal upon release. The sooner an animal can be rehabilitated and released back to its own environment, the more likely its place within the home range will not have been reoccupied.
- If there are limited resources available at the release site (for example, due to large numbers of conspecifics or vegetation removal), the cost of release to the existing population must be justified in terms of competition for food and shelter.
- The factors that lead to the original injury or condition must not pose an unacceptable risk to the animal again upon release (for example, if there are unusually high numbers of introduced predators at the site).

4. Continual reassessment during the process of rehabilitation is required, to ensure it remains in the best interests of the animal and that eventual release to the wild remains likely. If it becomes evident during the rehabilitation process that successful return to the wild is unlikely, the animal should be promptly euthanased.
5. Exceptional circumstances where a threatened species is involved should be discussed with an officer from DSE.

Veterinary care

The **Veterinary Practice Act 1997** precludes non-veterinarians from practising veterinary surgery or veterinary medicine. Wildlife rehabilitators may only administer first aid. In cases where veterinarians are not able to examine the animal directly, the permit holder should make every effort to obtain veterinary advice.

Surgical procedures that would result in the animal being unreleasable are inappropriate (for example, pinioning, amputating, declawing, or debeaking), with the exception of threatened species which may be offered to a zoological institution for breeding purposes. In such instances, advice from an DPI officer should be obtained.

Euthanasia

Wherever possible, a veterinarian should carry out euthanasia. Euthanasia by barbiturate overdose must only be carried out by a veterinarian. In exceptional circumstances where a wildlife rehabilitator is required to perform emergency euthanasia, a method appropriate for

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the species and circumstances should be employed to ensure minimal pain and suffering. If rehabilitators are not familiar with suitable euthanasia techniques for the particular species involved, every effort must be made to obtain expert advice in this regard.

Quarantine and disease control

Stressed animals are more susceptible to expressing and contracting infectious disease. It is important to prevent the spread of infectious disease amongst animals brought into captivity for the purposes of rehabilitation.

Upon arrival all animals should be isolated in geographically separate areas until their health status can be determined. Sick animals should be kept in quarantine conditions throughout the period of their rehabilitation. It is recommended that animals of different species are kept separate at all times.

Regular cleaning and disinfection with hospital grade disinfectant should be applied to enclosures and equipment. Areas known to be infected must be serviced last and should not drain into 'clean' areas.

Facilities for treatment, food preparation and washing of bedding should be separate from those used by humans.

Contaminated waste and carcases should be disposed of promptly, hygienically and in accordance with local Council by-laws or community standards.

Zoonoses

A number of diseases can be transmitted to humans from wild animals. These diseases are called 'zoonoses', and some can be fatal. All wildlife rehabilitators should respect the potential for disease transmission and use sound preventative measures.

Some commonly occurring zoonotic diseases are:

Ornithosis (Psittacosis), Salmonellosis, Tuberculosis, Leptospirosis, Yersiniosis, Pasteurellosis, Lyssa Virus, fungal and yeast infection (including ringworm and thrush), and parasitic skin diseases (scabies, lice and ticks).

Husbandry

Native animals in wildlife shelters have certain basic requirements if adequate welfare standards are to be maintained:

1. **Food** - clean and fresh, and the appropriate type, quality and quantity for the species.
2. **Water** - fresh and changed daily.
3. **Protection from**
   - noise
   - disease
   - unnecessary human contact
   - the weather. During the hospitalisation stage, animals require protection from wind, rain and extremes of temperature and humidity (however, toward the end of the rehabilitation process some re-acclimatisation to outside conditions may be necessary).
   - harassment by other animals and predation – contact, sight, sound and smell. If a wild animal becomes familiar with the sight, smell or sound of dogs and cats, it may not recognise them as dangerous once it is released.
4. **Clean air -** adequate ventilation, free from excessive dust, air-borne pathogens and noxious gases.
5. **Security** - mental and physical. A place to hide and avoid stressful experiences, including dark areas (particularly for nocturnal species), and a place to sleep and feed effectively. Enclosures must be escape proof and safe enough to prevent the animal from injuring itself.
6. **Space** - sufficient room to avoid initiation of "stress" behaviours. Refer to Minimum Cage Sizes in the Appendix.
7. **Lighting** - access to sunlight or 'natural' spectrum artificial light. The photoperiod should mimic external conditions.
8. **Supervision** - this is necessary to monitor and manage the case. Stress should be minimised, and ideally the animal should be unaware of the supervision.
9. **Hygiene** - daily cleaning of enclosures and feed and water containers. Regular water changes for aquatic species to prevent contamination of the animal's captive environment. Pens should be well drained.

Housing and enclosure design

Accommodation plays an important part in the rehabilitation process. Each case must be assessed individually, and a sound knowledge of the behaviour of the species is necessary in order to provide effective housing. This information should be sought at the outset.

Housing should be provided in such a way as to:

1. Fulfil the animal's needs throughout the shelter period.
2. Meet quarantine requirements.
3. Enable regular (daily) inspection.
4. Minimise stress and handling.
5. Prevent familiarity with domestic pets, and unnecessary human contact.
6. Allow rehabilitation in social groups if applicable.
7. Enable training for survival in the wild where necessary (eg. cage furniture to replicate elements of the natural environment).

The type of housing varies with the species and with the stage of rehabilitation. Two main types of housing should be provided at shelters:

1. **Hospitalisation** - where an intensive non-natural environment is required for more seriously injured animals. This housing should allow wildlife to stretch out comfortably, but restrict their activity enough so it is not necessary to chase the animal each time treatment or inspection is needed. The enclosure should be kept dark, quiet and at a constant temperature suited to the animal's age and species.

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2. **Standard Accommodation** - for the recovery period during rehabilitation. See Recommended Minimum Cage Sizes in the Appendix (note that larger enclosures than those specified may be necessary where an animal is regaining fitness or developing survival skills). This type of housing should be clean, quiet and provide appropriate shelter and security for the particular species (for instance, nest boxes, leafy branches, hollow logs or straw for burrowing).

Feeding

Clean, fresh food of the appropriate quality and quantity should be provided. This food should meet the animal's dietary and nutritional requirements, and be provided in a manner suitable for the species (for instance, fruit spiked on branches for possums, or worms scattered through leaf litter for Magpies). Fresh water should be provided and changed daily.

Good feeding management is essential for:

1. Rapid recovery and maximum healing potential.
2. Growth in young animals.
3. Maximum development of natural behaviour and survival techniques.

Captive diets should approximate the natural diet of the species to minimise the impact of captivity and to stimulate normal digestive function. Knowledge of the normal feeding habits of the species is necessary.

Handling

Most animals taken to shelters are frightened, physiologically stressed, mentally disoriented and may be sick, injured or in pain. Catching and handling injured wildlife should be done quickly and expertly to avoid further stress or injury. Rough handling can easily injure small animals. The housing, feeding and cleaning of animals should be done gently and efficiently, with the least disturbance possible.

Care should be taken to minimise the risk of injury to handlers by animals attempting to defend themselves or escape. Appropriate protective clothing should be worn where necessary (eg some species should only be handled with gloves to prevent injury to the rehabilitator and cross infection).

It is vital that wild adult animals are not tamed during rehabilitation, as this reduces their chance of survival upon release. Although a tame animal may possess most other living skills, it behaves differently to a wild animal. It is often not accepted by members of its own species, and is more susceptible to predation. Animals are not suitable for release unless they display instinctual fear and avoidance towards humans and domestic pets.

Release procedures

Procedures for the release of an animal are most important and must be carefully planned. The long-term survival of the animal is dependent in part on the release being conducted efficiently and effectively.

An animal that has been in captivity for a short period of time (up to two weeks) will need little preparation for release. If it has had minimal handling and a suitable diet and enclosure during rehabilitation, the animal should be in reasonable condition and have maintained its normal wild behavioural responses. The shorter the period of time in captivity, the better an animal's chances will be for survival upon release.

An animal is ready to be considered for release when it:

1. Has no permanent physical impairment that may effect its chances of survival.
2. Has regained fitness and condition.
3. Is able to tolerate outside conditions and its natural food sources,
4. Displays normal behaviour. The animal must show instinctual fear of humans and predators, be able to catch and process food, interact with conspecifics, find or construct shelter, mark its territory if applicable, and move and navigate terrain with confidence.

The following steps should be undertaken prior to release:

1. The most appropriate method of release determined. For instance, if an animal has been held for a short time (eg. a week) it is likely to have retained its survival skills, and should not require any post release support to improve its survival chances. Therefore, the animal can be given a 'hard' release at the rescue site. Animals that have undergone an extended period in captivity may require a 'soft' release. This may involve the provision of food, shelter or predator protection over a protracted period.
2. All animals to be released must be inspected by a veterinarian or experienced wildlife rehabilitator to ensure they are free of overt disease (including any diseases contracted during captivity) which may be transmitted to native populations.
3. Wildlife should be transferred to the release site and handled in such a way as to minimise stress. They should be captured quickly and expertly, and placed in a receptacle suitable for the particular species involved (such as a box, bag or cage lined with cloth). During transport, unnecessary noise should be avoided and the animal must have adequate ventilation. Only one animal should be transported per bag or box, other than mother and pouch young or a family group.
4. Avoid releasing an animal under circumstances that may cause additional stress, such as extremes of weather, or releasing during the wrong time of day (eg releasing nocturnal animals during daylight). Some animals fare better if released in established social groups. Animals that require nest boxes/hollows should not be released without at least a temporary nest box being provided to reduce stress and threat of predation immediately following release.
5. In the event where release is unsuccessful (for instance, the animal cannot find food, shelter or territory in the wild and is returned to the wildlife rehabilitator) the animal should be humanely

euthanased. Exceptional circumstances should be discussed with an officer from DSE for example if the animal is a member of a threatened species.

Wildlife rehabilitator training and experience

Permit holders should possess appropriate skills to ensure the welfare of the wildlife temporarily in their care. These skills include:

1. A clear understanding of the objectives of wildlife rehabilitation.
2. Accurate identification of species.
3. First aid for injured wildlife.
4. Husbandry.
5. Avoidance of disease transmission.
6. A basic understanding of wildlife ecology and population dynamics.
7. The ability to access specialised information.
8. Handling techniques.

In order to obtain and maintain an appropriate level of technical skills, a certain degree of training is necessary. Attendance at training sessions on a regular basis and a demonstrated undertaking to meet the standards embodied in this Code will facilitate permit renewal.

To ensure the welfare of wildlife in their care, wildlife rehabilitators should only take as many animals as they can manage.

To assist with the care of sick injured or orphaned wildlife and to provide a training facility for potential wildlife rehabilitators, up to three foster carers may be nominated under each permit to provide assistance. The wildlife rehabilitator will be responsible for the actions of the foster carers listed on the permit and is required to oversee the rehabilitation process. The permit holder cares for animals that are difficult to look after, while foster carers requiring experience are usually restricted to animals that are easy to rehabilitate.

Records

An important aspect of wildlife rehabilitation is the compilation and maintenance of accurate records relating to animal admissions. Such records assist in the treatment, rehabilitation and release of animals, provide valuable case history information for future admissions, and are an important resource for other wildlife rehabilitators. Statistics from these records can also be used to analyse the factors involved in wildlife rehabilitation, such as the reasons why animals are brought to shelters, the species involved, the areas they are coming from, and the outcomes of rehabilitation. In addition, these records are required by DSE for inspections.

Wildlife rehabilitators should note that it is a condition of the permit that records be maintained in an appropriate format. The permit specifies the type of information that should be recorded. Wildlife rehabilitators are also encouraged to keep their own additional details regarding the care, treatment and release of animals.

Essential information to be recorded incudes:

1. the species
2. the date the animal was brought into the shelter
3. where the animal was found
4. the animal's injuries / condition
5. the cause of the animal's injury / condition (if known)
6. the fate of the animal (including release site and release date if applicable).

Appendix - Recommended minimum cage sizes

1. **Birds**

The Code of Practice for the Housing of Caged Birds details cage construction, and permit holders should be conversant with this Code.

In the design of any bird cage, the ratio between the lengths of the two longest straight lines which can be described on the floor of the cage and at right angles to each other shall not exceed 4:1 unless the shorter of those two lines is at least 900 mm long. The length of this line should be at least twice the span of the wings of the largest bird to be kept in the cage.

Aviaries/cages with floor area exceeding 20 000 cm^2 must be of a minimum height of at least 150cm and allow access for physical entry. The minimum length and width of any cage should be at least twice the length of the largest bird in the cage. The care of raptors requires additional specialised knowledge and should only be undertaken by authorised individuals.

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Indoor cage dimensions

Size of bird (approximate length) NOTE: Birds specified below are examples	Minimum Floor area (sq cm)	Number of birds	Minimum height (cm)	Increased floor area for each additional bird (sq cm)
100mm (10cm)				
Zebra Finches	1000	1	34	500
200mm (20cm)				
Neophema, Budgerigars, Lorikeets (except Rainbow and Red Collared)	1,600	1	34	800
300mm (30cm)				
Rosellas, Cockatiels, Rainbow Lorikeets and Bronzewing Pigeons	5,000	1	90	2,500
400mm (40cm)				
King Parrots, Princess Parrots, Indian Ringneck and Superb Parrots, Galahs and Long billed Corellas	10,000	1	90	5,000
500mm (50cm)				
Sulphur Crested Cockatoos	15,000	1	150	7,500

Outdoor Cage Dimensions

Size of bird (approximate length) NOTE: Birds specified below are examples	Minimum Floor area (cm^2)	Number of birds	Minimum height (cm)	Increased floor area for each additional bird (cm^2)
100mm (10cm)				
Zebra Finches	3,700	1	60	1,800
200mm (20cm)				
Neophemas, Budgerigars, Lorikeets (except Rainbow and Red Collared)	7,200	1	60	3,600
300mm (30cm)				
Rosellas, Cockatiels, Rainbow Lorikeets and Bronzewing Pigeons	10,000	1	90	5,000
400mm (40cm)				
King Parrots, Princess Parrots, Indian Ringneck and Superb Parrots, Galahs and Long billed Corellas	15,000	1	90	7,500
500mm (50cm)				
Sulphur Crested Cockatoos	25,000	1	150	12,500

2. **Wading Birds**

Wading Birds require shallow areas providing soft substrate and natural feeding opportunities. Failure to provide these conditions may lead to chronic foot problems.

Size of bird **Note:** Birds specified below are examples	Minimum Floor area (cm^2)	Increased floor area for each additional bird (cm^2)	Minimum height (cm)	Minimum surface area of water (cm^2)
Large Birds				
Swans, Pelicans, Brolgas, Albatross	50,000	25,000	150	2,000
Small Birds				
Wild Ducks, Cormorants, Water Hens and Herons	25,000	12,500	150	1,000

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3. Reptiles

Only compatible animals may be multiple housed.

Type of Animal	Minimum floor area (cm²)	Maximum number of animals	Minimum height (cm)	Increased floor area for each additional animal (cm²)
Tortoises				
Up to 10 cm length	1,600	1	20	400
Over 10 cm length	20,000	1	20	10,000
Snakes				
Small terrestrial of <60 cm in length eg. adult Little Whip or juvenile Pythons	1,800	2	30	900
Less than 1.2 metres in length eg. Children's Python, Tiger Snake and Copperhead	4,000	2	50	2,000
Less than 2.5 metres in length eg. Eastern Brown, and Taipan King Brown	15,000	1	120	7,500
Tree snakes up to 1.2 metres in length	4,800	2	80	2,400
Large Pythons up to 2.5 metres in length eg. Diamond Python, Carpet Python, Water Python and Amenthystines	20,000	1	150	10,000
Note: Snakes longer than 2.5 metres require a minimum area of half their length squared				
Lizards				
Skinks, Dragons and Water Dragons	10,000	1	100	5,000
Goannas	45,000	1	200	20,000

4. Mammals

Only compatible animals may be multiple housed.

Type of animal	Minimum floor area (cm²)	Maximum number of animals	Minimum height (cm)	Increased floor area for each additional animal (cm²)
Hopping Mice	1,400	1	25	700
Dunnarts	2,000	1	25	1,000
Kowaris, Antechinuses, Mountain Pygmy Possums	3,000	1	30	1,500
Small Quolls	10,000	1	50	5,000
Feathertail Gliders	2,500	6	100	1,000
Tuans, Leadbeater Possums, Sugar and Squirrel Gliders and Ringtail Possums	2,500	2	100	1,000
Brushtail Possums	10,000	1	200	5,000
Potaroos and Bettongs	20,000	2	200	10,000
Tiger Quolls, Yellow Bellied and Greater Gliders, juvenile Kangaroos and Wallabies less than 5 kg, Echidnas and Koalas	20,000	1	200	10,000
Wallabies greater than 5kg, Kangaroos less than 20kg and Wombats	50m²	1	200	25m²
Kangaroos greater than 20kg	100m²	1	200	50m²

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5. Nest boxes

Type of animal	Maximum number of animals	Minimum length (cm)	Minimum width (cm)	Minimum height (cm)	Opening diameter (mm)
Dunnart, Pygmy Possum, Feathertail Glider and Antechinuses	6	14	12	10	32
Kowari	1	25	17	11	50
Hopping Mice	6				
Mountain Pygmy Possum	2 adults or mother and young				
Tuan, Sugar Glider, Squirrel Glider and Leadbeater Possum	1 adult or breeding pair or family group	25	17	11	50
Ringtail Possum and Yellow Bellied Glider	1	20	25	43	65
Brushtail Possum, Great Glider and Quolls	1	25	30	55	85
Wombat	1	55	120	50	-

Note: Leadbeater Possums, Sugar Gliders and Squirrel Gliders prefer to nest in family groups and may use a type five box with a 50mm opening. A choice of two boxes is recommended to accommodate individuals ejected after social disputes.

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