Abstract

There is no doubt that the motivation and objectives of wildlife carers stem from good intentions—intentions bound up with an appreciation of nature, feelings of moral responsibility and a desire to contribute to wildlife conservation. Nevertheless, in our desire to save lives, the welfare of some individuals can actually be jeopardised and compromised.

This paper provides some principles and guidelines to assist wildlife carers and carer groups to critically assess their animal welfare standards and make improvements in areas where deficiencies are occurring. Most important is the need for rapid and thorough assessment of all animals within the first hours of presentation. This is best accomplished with the assistance of a veterinarian, who can also provide humane euthanasia in appropriate cases. The decision to euthanase is seldom easy, but if the prognosis is poor or the animal unsuitable for release a decision to euthanase must be made quickly in the interests of the patient’s welfare. Euthanasia should be seen not as a last resort, but as a reasonable and responsible conservation and welfare strategy. Ongoing education programs for carers are essential in ensuring that good systems of animal care and welfare are applied to wildlife rehabilitation.

Introduction

Each year many tens of thousands of native animals are presented for care after being discovered sick or injured by members of the community. A proportion of these are presented to members of wildlife carer groups, and probably many more are cared for by the original rescuer or another person who may not have specific knowledge of their special needs. This situation itself presents some significant animal welfare issues. As wildlife carer groups become more professional, organised and well-recognised in the community, however, it is likely that an increasing proportion of sick and injured wildlife will find its way into the hands of more experienced carers. It is therefore important that we, as members and associates of wildlife carer groups and networks, strive to achieve the best standards of animal welfare by close attention to our duty to relieve suffering, and by using euthanasia in a timely and appropriate way.

Data collected from animal shelters indicate that more than one third of animals are dying whilst in care, with 21% doing so after five days or more. The primary aim of rescue and treatment of wildlife should be to rehabilitate and release the animal as quickly and effectively as possible. This requires an early assessment of prognosis and suitability for release if unnecessary suffering and stress on the animal is to be avoided.

This paper provides some guidelines for assessing and improving standards of animal welfare within wildlife carer networks and groups. In addition to the benefits for animal welfare, adoption of these guidelines should ensure that new statutory requirements relating to animals, such as the “duty of care”, in the new Queensland Animal Care and Protection Act, 2001 are met.
What is animal welfare?

Animal welfare is a recognition that animals, like us, deserve a life free of pain, discomfort, distress and hunger, and one that reasonably fulfils their physiological, psychological and social needs. It is a term that is more appropriately applied to animals that are in our care, or under our control in some way, rather than those living a natural life in their native environment.

Clearly, when we talk about animal welfare in the context of wildlife, it is our interactions with wildlife or the effect of our actions on the welfare of wildlife that must be examined. In the field of wildlife rescue and rehabilitation we must be exceptionally mindful of our potential to seriously compromise animal welfare, in our attempts to save lives. There are a number of reasons why this can happen:

1. Animals that we rescue are often sick, debilitated or suffering from serious injuries;
2. Financial or other constraints may limit the availability of appropriate veterinary attention;
3. Our goals can easily focus on saving lives rather than relieving suffering;
4. Inexperience or lack of training may result in inappropriate or inadequate care;
5. We may over time become blasé about sick and injured animals;
6. We accept that sick and injured wildlife often die whilst in care;
7. We may see euthanasia as an acceptance of failure.
8. We form emotional bonds with animals in our care, which make decisions to perform euthanasia difficult.

It is therefore necessary that if we are to improve our standards of animal welfare we must apply a logical and pragmatic approach to the process of wildlife rescue and rehabilitation. This approach must help us to overcome factors that may cause us to compromise animal welfare, and give us guidelines that help us to maximise the welfare of wildlife presented to us for care. It must ensure that appropriate pain relief, medical treatments and animal husbandry are applied so that once in our care, sick, injured or distressed animals are provided with appropriate relief. The key to addressing most of these factors is development of a thorough, systematic and ongoing training program for wildlife carers.

Changing our approach

We know that we cannot save the life of every animal that we rescue. A proportion of animals die shortly after rescue, and some have injuries that are so severe that we do not even contemplate attempting to save them. We know that they will die if we do not euthanise them, and so most of us clearly recognise euthanasia as the most humane option. We have therefore made one of the most important animal welfare decisions in wildlife care: that it is more important and humane to promptly relieve the suffering of the animal by euthanasia, rather than make a futile attempt to save its life or allow it to die from its injuries.

But what of the animals that are cared for over days, weeks or months and then die from their injuries or illness? Or those that die shortly after release, because they were incapable of surviving in the wild? This is the group in which the greatest improvements in animal welfare can be made with a humane and pragmatic approach. It is this group that potentially can be caused excessive and prolonged suffering, because in our attempts to save their lives, we have overlooked factors which should have suggested to us that
euthanasia was appropriate. How have we overlooked these factors? Usually it is because of the following:

1. Failure to make a thorough veterinary assessment of the animal upon presentation, therefore missing indications for euthanasia or veterinary intervention;
2. Failure to make a prognosis: that is, make a judgement on the likelihood of the animal making a full recovery for return to the wild;
3. Failure to properly monitor the progress of the animal during rehabilitation, which often requires follow-up veterinary assessments.
4. Developing an emotional attachment that affects our approach, preventing us from applying the most humane principles to the rehabilitation process, such as passing the animal on to an expert or referring to an experienced veterinarian, who may recommend euthanasia.
5. Failing to recognise clear indications for euthanasia or veterinary intervention.

Logically it should be our aim to minimise the ratio of wildlife that dies in care to those that are euthanised. In other words, if we are recognising injuries or illnesses that are likely to result in death or failure to survive following release, and euthanising these animals, rather than letting them die from those injuries, then we are improving our standard of animal welfare. We are recognising the likelihood of prolonged suffering, and ending it by humane euthanasia, rather than allowing natural death to be the endpoint.

Similarly, it is important that we recognise the need for veterinary assessment earlier rather than later, so that appropriate treatments, pain relief, or euthanasia can be applied to minimise further suffering in sick, injured or debilitated animals.

**Veterinary assistance**

As our knowledge of wildlife care and medicine grows, so does our ability to keep animals alive longer: the down side is that sometimes (and we hope this occurs only rarely), we can prolong the pain or suffering of a dying animal because our supportive care is so good. This applies to both wildlife carers and veterinarians.

Veterinarians are an integral part of the wildlife rehabilitation process: they are experts in diagnosis and treatment, and important in the process of reaching a prognosis. The prognosis is one of the most important outcomes of a thorough examination of the animal. The medical prognosis is based upon the veterinary examination of the animal and is a judgement on its likelihood of survival and return to full health. It may vary from excellent (likely to make a full recovery) to grave (or hopeless), which would warrant euthanasia. The release prognosis must be based upon the medical prognosis, but must also include factors that may affect an individual’s ability to survive in the wild, such as flight ability in predatory birds, time of year for migratory birds, territoriality in highly territorial species, etc.

Most sick or injured animals that are presented for care should receive a veterinary examination. Sometimes injuries or lesions are not immediately apparent, and require special expertise or tests to detect, for example: leukaemia in koalas. It is therefore vital that wildlife carers and carer groups form good relationships with a local veterinarian who has at least some interest in wildlife medicine. As a wildlife carer, your role is to assist and/or guide the veterinarian, particularly if he or she has little experience with wildlife. It is useful and helpful to veterinarians, particularly if they are busy, for the carer to have
made some physical assessment of the animal prior to presentation to the veterinarian. This allows the veterinarian to triage or prioritise cases based upon their urgency.
Performing an examination

A thorough examination is an essential step that should occur shortly after the presentation or rescue of sick, injured, orphaned or displaced wildlife. If it is not possible to get prompt veterinary assistance, then it is important that the wildlife carer perform a thorough examination of the animal. This may require the assistance of a more experienced carer. As soon as possible thereafter, it is desirable to get a thorough veterinary examination from a veterinarian with some interest or experience with wildlife.

No examination = no diagnosis = no prognosis = potential for poor animal welfare

Most diagnoses are missed by not looking rather than not knowing.

In other words, you do not need to be a specialist, a veterinarian or an expert to conduct a simple but thorough and systematic examination of an animal. Some diseases you will miss because you do not have specific knowledge or equipment, but many more will be missed because of failure to conduct a systematic and thorough examination. Conversely, conducting a systematic and thorough examination will ensure that you have the best database to make a diagnosis, prognosis, apply the best treatment, and ensure the best animal welfare outcome.

The following gives some guidelines for performing an examination. Record all of your findings at the time of the examination if possible. Often an anaesthetic helps to calm the animal to enable the examination to be performed efficiently and with a minimum of distress, physical restraint or stress to the animal. This requires the assistance of a veterinarian. If veterinary assistance is not available, still attempt to be thorough and systematic with the examination, but without causing undue distress or pain to the animal.

Step 1 Collect History: collect details of how the animal was found, by whom, where, when, how long it has been in that condition etc.

Step 2 Distant assessment: without disturbing the animal either at the rescue site, or in a cage or enclosure, observe the following:

- Demeanour (normal, depressed, moribund, alert, distressed)
- General body condition
- Coat or feather condition
- Breathing pattern (normal or laboured) and rate
- Gait or mobility (is it moving normally)
- Presence of obvious injuries (such as fractures or wounds)
- Presence of discharges, exudates, bleeding, diarrhoea, urine staining, drooling etc
- Abdominal distension
- Lumps, bumps or asymmetry

This step allows you to make an initial assessment of the basic state of the animal, which will determine how you proceed. For example: an animal with potential fractures should be handled gently and carefully, with due regard for the potential to cause significant pain, during handling and restraint. Some animals may require immediate first aid, veterinary care, pain relief or euthanasia based upon your initial distant assessment.
Step 3 Thorough examination:

A thorough examination is ideally performed with the assistance of a veterinarian, in which case the animal can be sedated or anaesthetised to minimise stress and pain. Alternatively, in less urgent cases, an examination can be conducted by the carer on a conscious animal, but giving due regard to the potential to cause pain and discomfort if the animal has severe injuries, fractures or disease. If the animal then requires veterinary attention, the findings of the initial examination will assist the veterinarian. With time and experience carers performing regular and systematic examinations on all animals will achieve exponential growth in their knowledge and abilities.

Most animals will require some form of restraint for the examination. Pharmacological methods are ideal, but generally require the input of a veterinarian. Physical restraint should be used gently and have due regard for injuries or breathing difficulties. Most animals are best restrained by one person, using a towel, blanket or cloth, whilst the other person systematically performs the examination.

The following is a list of the minimum requirements for a general examination:

**Head:**
- Symmetry
- Injuries
- Eyes, ears, nares (abnormalities, bleeding, discharges)
- Mouth, teeth, tongue (fractures, lacerations, drooling, etc)
- Mucous membrane colour (should be salmon pink)

**General:**
- Coat (or feathering) colour and consistency
- Body condition and weight
- General symmetry
- Demeanour and activity
- Paws, claws and digits
- Limbs and musculoskeletal system
- Vital signs: pulse, rectal temperature, heart rate and respiratory rate
- Abdominal palpation
- Vent/cloaca
- Pouch or scrotum
- Lymph nodes

The findings of your *History, Distant Examination and Thorough Examination* should be recorded at the time of the examination, along with details of the animal’s species, sex etc. An example proforma is attached at the end of this paper.

**Remember:** a thorough examination by a layperson or carer is not a substitute for a veterinary examination. It will, however, with experience and practice, result in a much higher standard of care by wildlife carers, resulting in improved animal welfare outcomes. In addition, a thorough examination by a carer can be very useful for the veterinarian subsequently examining the animal, and will help to prevent injuries or lesions from being overlooked.
Euthanasia

It is vitally important that all carers of wildlife understand the meaning and intent of euthanasia. Euthanasia means, literally, *good death*, that is: a death that is free of pain, distress and discomfort. A decision to perform euthanasia on an animal that is severely sick, injured or has little chance of return to the wild *is not an admission of failure*. It is a decision that is based upon the most humane outcome for the animal in the circumstances; a decision based upon compassion, caring and the application of good animal welfare principles. Euthanasia is not “playing God” any more than giving any other form of medical treatment to a suffering animal.

To be humane, any euthanasia technique must cause instantaneous or rapid loss of consciousness, followed shortly afterwards, by death. The target organ of most euthanasia techniques, therefore, is the brain. The brain may be targeted by chemical/pharmacological or traumatic methods (some more aesthetic than others), but in all cases of euthanasia the animal must be rendered either instantaneously or rapidly unconscious, or brain dead.

It is beyond the scope of this paper to give complete recommendations regarding the euthanasia of wildlife. Needless to say it should only be performed by appropriately trained or experienced persons, preferably with veterinary assistance. Methods such as drowning, suffocation, hypothermia and exsanguination are not considered humane and should not be used.

Outcomes of wildlife rehabilitation

The ultimate goal of wildlife rescue and rehabilitation is the release of healthy, fit wildlife back into its native habitat, under circumstances that maximise the chance of successful integration into the resident population. Ideally, there should be some *post-release monitoring* of the wildlife to ensure that this occurs, rather than just hoping that it occurs. Close post release monitoring, such as by radiotelemetry, allows intervention if things go wrong. Clearly there are significant financial costs associated with radiotelemetry projects, but they are really the only way of closely monitoring individuals after release. After a number of radiotracking studies on a particular species we can acquire a large amount of very useful information that can assist us in maximising success of wildlife following release into the wild.

Often, during the rehabilitation process, it becomes apparent that individuals may not be suitable for release, because of chronic or non-healing injuries, humanisation and imprinting, or other factors. It is important that wildlife carers or groups formulate policies on the disposition of unreleasable wildlife. These policies should place due regard on quality of life issues, availability of placements in zoological institutions or captive breeding colonies (for endangered species), and relevant wildlife regulations or codes. In general it is not appropriate to keep previously wild individuals in captivity unless:

1. Their quality of life is considered to be equal to or close to that of wild individuals, having due regard for physiological, psychological and social needs of the species.
2. There is some realistic purpose for keeping the animal, such as involvement in a community education program, captive breeding or research program that benefits conservation of wildlife.
3. A high standard of captive care with appropriately experienced keepers and suitable husbandry requirements can be guaranteed for the life of the animal.
The accumulation of collections of unreleasable wildlife by carers should not be encouraged. Whilst the decision to euthanise animals that have been in care for prolonged periods of time is often difficult, it is important that emotional attachments do not compromise pragmatic and logical outcomes. It is important to remember that euthanasia is not an admission of failure, but a humane outcome based on concern for the welfare of an individual.

The following flow charts should assist in auditing and improving the standard of animal welfare in your wildlife rehabilitation group. The first chart is a simple algorithm to demonstrate a logical approach to the disposition of unreleasable wildlife. The second provides a means of assessing response times of wildlife carers or carer groups following a wildlife pick-up call. This algorithm is applicable to any wildlife, whether sick, injured, orphaned or displaced. Lastly, as examples, koala rescue and assessment flow charts are provided to give some guidance as to how to categorise cases based upon their urgency for veterinary attention.

**WILDLIFE RELEASE, EUTHANASIA OR CAPTIVE PLACEMENT ALGORITHM**

1. Endangered species captive breeding program.
2. Conservation or community education program.
WILDLIFE RESCUE EXAMINATION RECORD

Accesion number:__________________ Date:____________ Time:______________
Species:____________________ Age:_______ Sex:______ ID:________________

Rescue details
Time of call:________ Time of rescue:________
Caller details:________________________________________

Animal history:________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Exact location of rescue:________________________________________________
________________________________________________________________________

Initial (distant) assessment

Weight:___________

Demeanour: bright alert depressed moribund distressed other:________
General body condition: excellent good fair poor very poor emaciated
Coat/feather condition:_______________________________________________
Breathing: normal rapid slow shallow laboured open-mouthed noisy ________
Gait/mobility:_________________________________________________________
Obvious injuries:_______________________________________________________
Discharges, exudates, diarrhoea etc:___________________________
Abdomen: normal distended sunken eviscerated other:_____________________________________________________
Lumps, bumps, asymmetry:_____________________________________________
Other findings:_______________________________________________________
Assessment summary or diagnosis:_______________________________________

Initial prognosis:__good   fair   guarded   grave   not determined

Is immediate first aid required? Yes □ No □
Is immediate veterinary care required? Yes □ No □
Is immediate euthanasia required? Yes □ No □

Thorough physical assessment

Veterinarian assisting? Yes □ No □
Sedation/anaesthesia used? Yes □ No □ Drug/dose:________

Head: Symmetry: normal abnormal __________________

Eyes:
Ears and nares:
Mouth, teeth, jaw:
Other:________________

Limbs: Paws, claws, digits:
Lameness:__________________ Tail:__________________
Right fore/wing:_________ Left fore/wing__________
Right hind:_________ Left hind:_________
Other:________________

Body: Skin, coat/feathering:

Body condition:
Musculoskeletal:
Abdominal palpation:
Auscultation heart/lungs:
Vent/cloaca:
Pouch/scrotum:
Lymph nodes:
Vital signs: T:___ HR:___ RR:___ MM:___ CRT:___ Pulse:________

PLEASE TURN OVER AND COMPLETE OTHER SIDE OF THIS FORM
Summary of general physical examination findings

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

Diagnosis:_______________________________________________________________

Prognosis:_______________________________________________________________

Is veterinary assistance required?  No □ Yes □ Time of vet check ______

Is euthanasia required?  No □ Yes □

Details of euthanasia:  time:_____ method:_____________________

by:_________________________

Disposal of carcase:_________________________

Details of veterinary examination

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

Diagnostic aids: radiography □ blood □ faecal □ other:_____

Findings:________________________________________________________________

Veterinary diagnosis:____________________________________________________

Prognosis:________________________________________________________________

Treatment/Management:___________________________________________________

_________________________________________________________________________

Follow-up required:_____________________________________________________

Veterinarian:_________________________ time:______ date:______

Final outcome

Time:_____________  Date:____________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

Time from call to rescue:_____________  RESCUE RESPONSE TIME

Time from rescue to vet care:_____________  VETERINARY RESPONSE TIME

Time from rescue to final outcome:_______  ACTION RESPONSE TIME

Animal welfare issues?____________________________________________________

Recorder:_____________________________________________________________
WILDLIFE RESCUE AND ASSESSMENT ALGORITHM

Receive animal distress call

Note time

RESCUE RESPONSE TIME

Note time

INPUT FROM SPECIES COORDINATOR

ACTION RESPONSE TIME

Note time

RELEASE TO WILD

REVIEW PROGRESS & PROGNOSIS*

EUTHANASIA

VETERINARY CARE

SPECIALISED CARE

STANDARD CARE

It is important to constantly assess, review and repeat the prognosis during the rehabilitation process. Sometimes conditions that may change the prognosis only become apparent after a period of time in care.

The shorter the RESCUE RESPONSE TIME and ACTION RESPONSE TIME, the better the animal welfare.