

### *Notes from PowerPoint Presentation:*

Townsville is located in North Queensland 1500 kilometres north of Brisbane. The immediate area is known as the 'Dry Tropics' but ranges from the wet tropics in the north, semi-arid lands to the west & south and a combination of wetlands and dry tropics of grass & Bush elsewhere.

Human land use consists of city/urban housing & businesses, semi-rural and developed farms consisting of cane fields cash crops, and cattle. Semi-urban development of industrial sites, & more housing & businesses are continuing to be built on the older large-land parcels previously used for grazing.

Consequently we have a diverse range of land which wild native animals must now inhabit successfully in order to survive. Such as:

- public & private
- creeks
- bush/ forests
- wetlands
- coasts
- rainforests

Townsville/Thuringowa are the major twin cities in the North. Our body covers many regions and migratory birds. We assist birds that breed in our area and return to Southeast Asia, Asia and Japan. We have land animals that are flown to us for care from more than 1000 kilometres away.

Why would 2 wildlife carers from a northern city which many southerners feel 'is somewhere near Cairns', choose to stand here to make a presentation? Because, this **IS** the first National Wildlife Rehabilitation Conference. The issues to be discussed, we think, need to form a National approach with input from all areas of Australia.

#### **The purpose of our talk is:**

- to spark informed discussion and to contribute towards the formulation towards a National approach to the Wildlife Rehabilitation Process which includes release.
- to promote a standard which will minimise further contamination of species.

In Australia, we have a very poor record of preserving our wildlife. Many species are already extinct and over 460 are currently under threat. The list continues to

grow. We are killing enough of our native wildlife through urban and clearing farming activities, etc. It does not need us, as well-intentioned wildlife rehabilitators to exacerbate the problems threatening the survival of a species by our actions.

Nationally, we have a chance to put in place networks to assist in relocating wildlife to their own genetic area & to set up a register of safe release sites wherever possible.

We may also be able to decide on a concerted approach to those creatures where their home and/or place of origin are unknown. It is time we looked at how often euthanasia is considered the only alternative answer to a situation.

To assist in doing this we will highlight 3 different cases:

- 1 where release regarding genetic purity is not an issue.
- 1 where there are no genetic considerations, but *social organisation* is of prime importance **with** a safe habitat.
- And the third case where it is imperative that these animals are returned to their place of origin **and** family in order that their traits remain constant. (genetic purity)

**Definition:**

For the purposes of this discussion, we define 'genetic purity' as the genetic makeup which is unique to and which controls the hereditary characteristics of that animal.

**Rationale:**

To best suit its own particular environment, a species develops unique characteristics. This development occurs over a long period of time. If we change the genetic makeup by introducing to the group different genetic material, the species' genetic characteristics will change. The change is artificial, and may cause a significant change to the former species. In other words we are changing the species. (Remember we have killed off so many & so many more are under threat.)

**Some arguments for retaining genetic purity:**

- Human intervention has no impact in short term species modifications. Not to include human interference with habitat.
- Research studies can be long term and meaningful.
- Species DNA conserved. Change occurring naturally.
- Change is normal & healthy
- Extinction is normal
- *Social organisation* remains constant except for natural events.

### Some arguments against retaining genetic purity:

- Human interference with habitat is extensive and is acknowledged to have an impact. Research studies' arguments cannot be seen to be valid.
- Today's habitat/environment unable to sustain all of animal's species/subspecies.
- *Social organisation* is not remaining constant.
- In today's world, closed family leads to extinction.
- The probability of an increase in genetic diseases occurs through a closed population.
- Robust stock is reduced.
- Diseases are increased in small, closed habitats with large species population.
- Change **is** normal & healthy.
- There are occasions when an animal has to be released into an area where the genetic makeup differs
- Survival of an individual animal is important. Theory proposing total genetic purity does not regard welfare of individual animal's actual survival (esoteric not humanistic).
- Individual animals can be used for other purposes.
- The concept, 'the animal would rather be dead'. We really are weighing the survival of a pure species against the survival of the animal.

The issue of release requires mention of the realities of the release, some of which are:

- ✓ Known habitat limited or gone
- ✓ Access to drinkable water
- ✓ Safety from hunters/culling/burnings
- ✓ Danger from roads/domestic animals/built up areas/poisoning practices
- ✓ Available natural food
- ✓ Lack of knowledge of animal's origin & species & animal family's distribution
- ✓ Known locality but unsighted resident population

### Case A: The Wandering Whistling Duck

The Wandering Whistling Duck is said to inhabit tropical grasslands. They are however located over an extensive area of Australia. With 1 species and no subspecies and despite cross breeding capabilities, **genetic purity** is not an issue.

*Social organisation* does need to be considered. Ducks **do** bond as pairs, which are protective of ducklings. Family structures **do** exist within flocks. Ducklings **do** appear to benefit from and/or require the safety, comfort and training that comes from such structures. Their release as young adults as a unit with knowledge of

appropriate social behaviours **do** appear required. With release-behaviours considered, returning a recovered, injured adult to a different flock can be successfully accomplished.

In our geographic location, they can be released within a standard following *social organisation*.

### Case B: The case of three Eastern Grey kangaroos

In this case, there are no genetic considerations as there is only one species of eastern grey kangaroos. The concerns here are habitat, safety and *social organisation*, the latter being of extreme importance.

The areas from which we receive these orphans are either the outskirts of town, as the result of culling on western stations, or the roads and highways into the hinterland.

Causal factors are a severe loss of habitat as housing and roads push into the kangaroos range, accompanied by the threat from packs of domestic dogs running rife, and weekend 'sporting' shooters. Thousands of kangaroos are culled. There is wholesale slaughter on the roads as road trains speed through during the night. Fortunately, some shooters and some motorists take steps to save the infant roo from the pouch or beside its dead mum.

While this species roams over a huge area, it is not easy to find a release site where they exist naturally, where there is adequate food and water, and yet where they will not be shot, mowed down or otherwise killed as the result of human intervention.

The kangaroos you see are lucky in that we have found such a site where the owners actively welcome their release. This is Mt. Flagstone Station.

The property covers 9000 acres, is 12 km from the highway and the usual release spot is about 2 km in from the dirt access road. There are resident grey kangaroos. Our greys are released in an established social group to an area where the species exists naturally and threats to their survival are minimal.

In this geographic location, they can be released within a standard following **social organization with safety**.

### Case C: Kevin the Euro (*Macropus robustus erubescens*)

Kevin came in to care in May 2001, weighing a little over 700 grams. His mother had been killed at a remote western mine site. The environmental staff at the site arranged his travel and flew him in to town that evening. This was Kevin's first big hurdle, as the airline insists that animals travel as freight in the cold luggage hold.

After over a year in care and initial difficulties Kevin was returned to the wild, a robust and muscled 18kg, in June 2002.

The special considerations in his case were:

- ❖ although the sub-species *macropus robustus erubescens* inhabits most of the continent west of the Great Dividing Range there is a significant colour and hair variation as you travel west from Townsville. While you may find shaggy coated dark grey to black wallaroos a hundred km north and east of Kevin's home, who are **still robustus erubescens**, starting in a pocket between the Selwyn and McKinlay Ranges you have this 'family' who are distinctly different. As a juvenile, the nose appears more Roman and bare, and when furred the animals have red/brown, short, very fine coats – more like the coat of a red kangaroo in texture. These differences make it imperative that animals from this area are returned to their place of origin.
- ❖ that place is some 900 kms west of Townsville and road access is not a feasible option. As the area is a mine site and closed to the general public, access is on a fly-in fly-out basis. Fortunately the operators of that site – BHP Billiton – are conservation minded; kept up with Kevin's progress while in care, and arranged for us to travel out on one of their chartered flights with him for release. With local knowledge, they had chosen a suitable place, with sufficient food and water. This had to be changed at the last minute due to the abundance of wedge-tail eagles in the first area.

Kevin survived the flight and was duly released in a tree-lined dry creek-bed. He would still have to cope with digging for or finding water, integrating with other wallaroos, and evading eagles and dingoes. He was, however, safe from roads and shooting and was back in his own territory with his own family's unique traits

With this particular animal, a **genetic purity release-outcome** is imperative.

### Conclusion:

- All native animals should be released back to their own unique location – genetic purity
- For some species this is imperative

- Some animals cannot be released back to their own unique location but can be released and still be genetically pure
- Some animals cannot be released back to their own unique location but can be released

**Question:** Should some animals be released outside their known genetic population?

**Consider:**

acknowledgement that change is normal  
 individual survival  
 habitat destruction  
 repopulation of habitat  
 genetic disease  
 cultural practices  
 facilitation of release groups

**Question:** Should some animals be released outside their *social organization*?

**Consider:**

acknowledgement that change is normal  
 individual survival  
 habitat destruction  
 repopulation of habitat  
 genetic disease  
 cultural practices  
 facilitation of release groups

**Question:** What should we do with animals which cannot be released back to their unique genetic population **and /or** *social organization*?

**Consider current policy solution:**

Euthanasia- kill them

**Question:** If we cannot release them back to at least a suitable *social organisation* structure, can we formulate more options within a *National Alternative Solution*: e.g.

- Private facilities
- Wildlife parks/zoos/ etc.
- Education

- Research
- Breeding
- Primary production
- Euthanasia

Finally:

**Question:** Could we establish a National MAP of Safe Release Sites accessible to wildlife rehabilitators?

Recommendations:

- I. National *Release* Standard be formulated.
  - a. Framework be clearly defined as 'live' & workable document, *i.e. changes will be expected.*
  - b. Genetic purity release consideration be considered the Goal Outcome *yet acknowledged that it may be untenable.*
  - c. Animal's *social organisation* be considered within National Release Standard *after genetic purity.*
  - d. Proactive alternative solutions be given status as per animal species.
  - e. Death of animal (euthanasia) be recognised as failure to find proactive alternative *not only alternative after genetic purity release goal.*
  
- III. Establish a National MAP of Safe Release Sites accessible to wildlife rehabilitators.

**What are your views? Should we do it? Can we do it?**

Thank you.

References:

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- P M Johnson, EPA, Nth Qld Regional Centre, Townsville.

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