

Assessment of releasability, preparation of release, the release itself and post-release monitoring are all important parts of the rehabilitation process.

### Background considerations

Mortality is very high after rehabilitation and release and after translocation and release!

Animals die from starvation or other signs of maladaptation to the unfamiliar or (even worse) inappropriate environment.

Also new releases can pose a risk to the resident population – introducing disease and interfering with the genetic make-up of the residents. The health of the ecosystem and the resident population should always be taken into consideration. Animals can contract diseases during rehabilitation and transmit them after release. These pathogens might not even necessarily cause disease in ringtails but maybe in other species.

Animals with endemic diseases that don't make them clinically ill can introduce these to wild populations without immunity to them and the rehabilitated animal can also be exposed to diseases it is not immune against.

Disease introduction into an ecosystem or failure of the rehabilitation due to the possum falling ill soon after release stay mostly undetected due to a lack of post release monitoring.

Release back in to the wild is always a stressful time for the released animal and for the wild animals that have to take up competition. Stress causes immunosuppression which makes animals more susceptible to disease.

It is preferable to keep animals for as short a period in rehabilitation as possible.

### Assessment whether an animal is releasable

- Has the ringtail fully recovered from any injuries or diseases?
- Is there still a need for medical treatment?
- Is it healthy and no obvious risk to wild populations?
- Is it physically fit and strong?
- Is it of an appropriate age?
- Does it have the appropriate weight?
- Is it able to display a normal wild animal behaviour - find food, recognise and avoid predators, build dreys or find suitable shelter, interact with other possums?
- Is the animal properly weaned off everything foreign including humans?

For ringtails with slight disabilities:

Tip of the tail amputations

- Can the animal still climb, jump and balance adequately?
- Is the tail still usable for carrying building materials?

- Will the animal cope in this particular environment?
- Blindness in one eye
- Has the animal adapted to the disability? When and why did blindness happen?
  - Is the environment reasonably predator-free and safe?

### Choice of release site

If the habitat is still suitable, the ringtail should go back to where it came from.

If the habitat is unsuitable:

Choose a habitat

- within the species range (where species existed or still exists)
- that is as close to the natural habitat as possible (coastal ringtails should stay in coastal habitats)
- that is free of known diseases to which ringtails are not immune
- where there is year-round adequate food supply
- that is well vegetated and reasonably safe
- where there are as few predators as possible
- that is not already overcrowded with possums
- where there is at least vacant habitat in reach
- that is not earmarked for development or a controlled burn in the near future

### Choice of release time

Don't release

- in the heat of the summer
- when food is scarce
- when water is unavailable
- in the worst of winter
- prior to bad weather forecasted

Best release time is autumn and spring.

### Hard release versus soft release

Apart from adults that were only in short-term care soft release is the preferred option.

Carer should aim at doing long-term post release monitoring and keep records about it.

