

## Species Protocol

### Release of Rehabilitated Western Ringtail Possums

#### Purpose

The purpose of this document is to establish criteria for the release of rehabilitated (injured or abandoned) western ringtail possums (WRP; *Pseudocheirus occidentalis*), or ngwayir.

This protocol must be adhered to in accordance with Condition 1 of a Regulation 35, fauna possessing (other purposes) licence, for the purpose of rehabilitating fauna for release into the wild.

In accordance with the Department of Biodiversity, Conservation and Attractions's (DBCA) *Code of Practice for Wildlife Rehabilitation in Western Australia 2020* (the Code), the aim of this protocol is to ensure that the activities of all parties involved in the rehabilitation of WRP in Western Australia (WA) result in the best possible conservation and animal welfare outcomes for both the rehabilitated animals and the wild populations they are returned to.

People and organisations involved in the rehabilitation and release of injured or abandoned fauna have a responsibility to ensure that:

- conservation benefits are maximised;
- adverse ecological outcomes are avoided;
- animal welfare meets acceptable standards; and
- risks to human health and safety are minimised.

#### Western Ringtail Possum rehabilitation and species recovery

The WRP is listed as critically endangered under the *Biodiversity Conservation Act 2016*. The threats to WRP are complex, interactive and are often population specific. The *Western Ringtail Possum (Pseudocheirus occidentalis) Recovery Plan* (Recovery Plan; 2017) identified habitat loss and fragmentation, predation, climate change, fire, competition for tree hollows, tree disease that may impact habitat quality, and un-regulated relocation of orphaned, injured and rehabilitated WRPs as ongoing threats to the population.

The Recovery Plan noted that unregulated releases can affect monitoring programs, artificially extend the known geographic range of the species, spread diseases, increase pressure on existing habitat, disturb resident WRPs at release sites, genetically mix otherwise isolated populations and may even result in the death of WRPs through inappropriate habitat availability at release sites, or predation by introduced predators in areas where there are no or limited control programs in place.

Surveys have confirmed that WRPs are not evenly distributed across habitats (e.g. Jones et al. 1994, Jones et al. 2004, Wayne et al. 2006). In the jarrah forest, home ranges average three hectares (Wayne et al. 2000) while in peppermint dominated habitat, home ranges are generally less than two hectares (Jones et al. 1994). WRPs show high site fidelity and territoriality (Ellis and Jones 1992), and most juveniles establish home ranges next to their maternal home range.

Habitat carrying capacity is influenced by a range of factors but is principally driven by vegetation structure and composition, and the quality and quantity of food available. WRP densities can be up to 40 per hectare with higher densities found in fringing river and wetland habitats and in the Bunbury to Dunsborough and Albany areas (Jones et al. 1994, Gilfillan 2008). WRP in urban environments often have smaller home

ranges compared with non-urban areas because of higher quality and greater density of food and habitat resources.

When considering suitable habitat for release of rehabilitated WRP, the Code's objective is to ensure that wild populations and natural environments are not negatively impacted by the release of fauna and that the welfare of the rehabilitated animal after release is considered. Maximising chance of survival is important.

## Authorisations

*Rehabilitated possums must be released back into the wild in the same location where they were found, unless otherwise authorised.*

If the exact location where fauna was found is known but it is deemed an unsuitable environment for release (e.g. when habitat has been cleared and there is no viable alternative for release immediately adjacent to the site, or where a WRP has been attacked by a household dog), a Releasing Fauna Authority must be applied for and approved by DBCA for an alternate release area. If there is no information about where the fauna was found, approval must also be sought from DBCA for a suitable release area. This allows DBCA to consider whether the release site is appropriate, including whether other WRP have recently been released there.

Identified release areas should be as close as possible to the individual's home range and have not already received more rehabilitated WRP than the area can support.

The Code states that a **suitable environment for release** is one that:

- contains appropriate habitat and adequate food resources for the long term;
- members of the same species naturally occupy the area; and
- does not place the animal at a high risk of injury.

For WRP, determining suitable habitat includes consideration of availability of high quality vegetation, site fidelity of the species (showing a preference to return to their established home range or the home range of their mother), resident population densities, ensuring control programs for introduced predators (foxes and feral cats) are in place where possible (noting that this is difficult in urban areas) and whether any additional threats still exist. Broad population management zones in the Swan Coastal Plain (Bunbury to Augusta), Southern Forest (Manjimup area) and South Coast (Walpole to east of Albany at Waychinicup National Park) should also be considered, along with releasing WRP within existing genetic clusters (White et al. 2021) to maximise the chance of survival for animals that are specifically adapted to local habitat and climatic variables.

A **Releasing Fauna Authority** to release rehabilitated WRP outside of its home range is obtained through the local DBCA district or regional office. The authority is endorsed by an approved delegate of the CEO or a DBCA Wildlife Officer. The application must include adequate information to allow DBCA Wildlife Officers to assess the suitability of potential release habitat. Information required includes the number of WRP to be released, reason the fauna cannot be released at the exact location it was found, location of the proposed release site and confirmation that the proposed location offers suitable habitat. Refer to Appendix 1 for the detailed information required to make an assessment, noting that applications will not be assessed if insufficient information is provided.

A **section 40 Ministerial authorisation** under the *Biodiversity Conservation Act 2016* (BC Act) must be obtained under the following circumstances:

- To authorise the “disturbance” of a threatened species as defined in section 5 of the BC Act which includes *to apply an identifier to fauna by any means*. An identifier is a tag, mark, brand, electronic device or other thing of a prescribed kind, designed or used to identify, track or trace the rehabilitated WRP. Please refer to <https://www.dbcwa.wa.gov.au/management/threatened-species-and-communities/protections-and-approvals/authorisation-take-and-disturb-threatened-fauna> for further information
- To authorise “take” of a threatened species, which is considered likely where five individuals or more are to be released at the same location within a short time period (*Note: this ‘time period’ requires discussion with a local DBCA Wildlife Officer as it is dependent on factors such as habitat area and quality, and resident WRP density*), or for research purposes. This may be treated as a ‘translocation’, which requires preparation of a translocation proposal to provide sufficient information to assess risk to the recipient site. Please contact DBCA’s Species and Communities Program, [speciesandcommunities@dbcwa.wa.gov.au](mailto:speciesandcommunities@dbcwa.wa.gov.au), for further information in relation to translocation proposal requirements for releases of this size.

A Fauna Releasing Authority application should be sent through to the relevant DBCA district/regional office. It will be assessed by a DBCA Wildlife Officer and referred to the Species and Communities Program as required. Where an identifier is not attached, a DBCA Wildlife Officer can assess and approve a release of less than five individual animals based on the information provided.

### Release of rehabilitated WRP

Section 3.3 of the Code outlines when injured or abandoned (for >12 hours and are too young to survive independently in the wild) WRP should be taken into care following assessment by a registered veterinary practitioner or a person who has extensive knowledge of current rehabilitation techniques. WRP taken into care >600g that show no signs of injury or ongoing illness and are assessed as independent (weaned and consuming solid food only) must be released within 24 hours back to the same location where they were found, unless severe or extreme heatwave conditions are current or predicted, or otherwise authorised. WRP should be released as soon as possible after rehabilitation.

Section 3.16 of the Code outlines the timing of release of fauna with the objective to ensure that fauna is released as soon as possible when it is ready and at a time that minimises stress and maximises its chances of survival in its natural habitat. WRP should not be released during a Bureau of Meteorology (BOM) Severe or Extreme heatwave occurring in the release area or within 7 days prior to the start of BOM Severe or Extreme heatwave in the release area. For further information see <http://www.bom.gov.au/australia/heatwave/knowledge-centre/understanding.shtml>

*Note: rehabilitated WRP may be released into natural/artificial dreys/nest sites to provide temporary shelter.*

### Regulation 101 access to land to release fauna

Regulation 101 of the *Biodiversity Conservation Regulations 2018* prescribes that a person must obtain access to land by an owner or occupier to enter that land and release fauna. Access to land can be obtained on a case-by-case basis for release back to the location fauna was found, or for instances where alternate release locations are required, an access to land may be obtained for a land category, such as a local government authority or large, suitable private land locations.

Where fauna will be returned to the location it was found, the request for access to the land from the landowner or occupier may occur when the animal is initially collected or when released following care.

The access to land authorisation for releasing fauna must be in writing. It should identify the relevant land, the period during which access to land is authorised, and be signed and dated by the owner or occupier supplying the authorisation. An Access to Land to Release Fauna template is provided in Appendix 2, noting that written authorisation does not have to be on this form.

#### References:

- Department of Biodiversity, Conservation and Attractions (2020). *Code of Practice for Wildlife Rehabilitation in Western Australia*. Department of Biodiversity, Conservation and Attractions, Perth, WA.
- Department of Parks and Wildlife (2017). *Western Ringtail Possum (*Pseudocheirus occidentalis*) Recovery Plan*. Wildlife Management Program No. 58. Department of Parks and Wildlife, Perth, WA.
- Ellis and Jones (1992). Observations of captive and wild western ringtail possums *Pseudocheirus occidentalis*, *The Western Australian Naturalist*, 19: 1-10.
- Gilfillan, S. (2008). *Western Ringtail Possum (*Pseudocheirus occidentalis*) Survey and Data Collection in the Greater Albany Area*. Phase 1 Final Report. Department of Environment and Conservation, Albany Regional Office, WA.
- Jones, B.A., Meathrel, C.E. and Calver, M.C. (2004). Hypotheses arising from a population recovery of the western ringtail possum *Pseudocheirus occidentalis* in fire regrowth patches in a stand of *Agonis flexuosa* trees in south-western Australia. In: *Conservation of Australia's Forest Fauna*. D. Lunney (ed). *Royal Zoological Society of New South Wales*, Mosman, NSW. pp. 656 - 662.
- Jones, B.A., How, R.A. and Kitchener, D.J. (1994). A field study of *Pseudocheirus occidentalis* (Marsupialia: Petauridae). II. Population studies. *Wildlife Research* 21: 189-201.
- Wayne, A., Ward, C., Rooney, J. and Wheeler, I. (2000). *The Immediate Impacts of Timber Harvesting and Associated Activities on the Ngwayir (*Pseudocheirus occidentalis*) in the Jarrah Forest of Kingston State Forest Block*. Department of Conservation and Land Management, Manjimup, WA.
- Wayne, A.F., Cowling, A., Lindenmayer, D.B., Ward, C.G., Vellios, C.V., Donnelly, C.F. and Calver, M.C. (2006). The abundance of a threatened arboreal marsupial in relation to anthropogenic disturbances at local- and landscape-scales in Mediterranean-type forest in Western Australia. *Biological Conservation* 127: 463-476.
- White, D. Comer, S. and Wayne, A. (2021). *Understanding genomic variation in the western ringtail possum and its application to effective conservation management - Final Report*. NESP Threatened Species Recovery Hub Project 4.1.8 Report, Brisbane, QLD.

## Appendix 1:

## APPLICATION – RELEASING FAUNA AUTHORITY

Pursuant to regulation 44(b) of the Biodiversity Conservation Regulations 2018, a person must not release from confinement any fauna possessed under a licence unless authorised under the conditions of the licence or the release is authorised by an authorisation given by the CEO or a wildlife officer.

<b>Fauna</b>	<input type="checkbox"/>	Threatened or Schedule 6 listed species
	<input type="checkbox"/>	Other than threatened or Schedule 6 listed species
<b>Species and quantity</b>		
<b>Exact location fauna was found</b>	<input type="checkbox"/>	Unknown
	<b>OR</b>	
	<input type="checkbox"/>	Location:
<b>Reason for alternate release site</b>	<input type="checkbox"/>	Exact location found unknown
	<input type="checkbox"/>	Exact location is not a <b><i>suitable environment</i></b>
	<input type="checkbox"/>	No <b><i>suitable environment</i></b> within <5km of exact location
<b>Proposed Release site/s</b> (GPS coordinates, Lot / location no., street name, suburb, LGA)		
<b>Land owner / occupier</b>		
<b>Proximity to location found</b>		

## Person / organisation requesting authority to release fauna

<b>Name</b>			
<b>Licence No. (reg 35)</b>			
<b>Contact no. / email</b>			
<b>Signature</b>		<b>Date signed</b>	____/____/____

*NOTE: This is not a prescribed form. An application may be provided in any format providing it contains relevant applicant, fauna and location details sufficient for DBCA to consider whether the release site is appropriate.*

**Release of 1-2 rehabilitated (injured or abandoned) western ringtail possums (WRP) outside of individuals home range.**

Question	Answer (provide attachments where required)	Criteria met (Y/N)
1. Where was the WRP collected? <i>Note: rehabilitated WRP must be released where they were found or as close as possible to that location.</i>		
2. Please provide the location of the release area? Approximately how far is it from where the WRP was collected?		
3. Who is the release site landowner/manager? Have they provided permission to undertake the release? Please provide written evidence.		
4. What is the primary land use of the release area?		
5. Have possums or evidence of WRP and brushtail possums (e.g. drey, nest site) been observed at the release site? Please provide details of observations.		
6. What are the main vegetation types at the release site? Is it similar to where the WRP was collected (e.g. species, density, quality)?		
7. What is the approximate total area of suitable habitat (hectares)?		
8. Are any water sources available to native fauna, and if yes, what are they?		
9. Who will undertake the release? Please list all animal handlers likely to be involved, including their experience in handling and releasing WRP.		

**Requirements/Conditions:**

- Where WRP cannot be returned to point of capture, identified release areas should be as close as possible to the individuals' home range.
- A section 40 authorisation under the *Biodiversity Conservation Act 2016* must be acquired if an identifier\* is placed on individuals.

*\*An identifier means a tag, mark, brand, electronic device or other thing of a prescribed kind, designed or used to identify, track or trace an organism.*

**Approval**

Providing an identifier is not attached, a DBCA Wildlife Officer can assess this type of release and section 40 approval is not required.

**Release of 3-4 rehabilitated (injured or abandoned) western ringtail possums (WRP) outside of individuals home range. Note: preference is for releases of 1-2 animals only where possible.**

Question	Answer (provide attachments where required)	Criteria met (Y/N)
1. Where were the WRP collected? <i>Note: rehabilitated WRP must be released where they were found or as close as possible to that location.</i>		
2. Please provide the location of the release area? Approximately how far is it from where the WRP were collected?		
3. Who is the release site landowner/manager? Have they provided permission to undertake the release? Please provide written evidence.		
4. What is the primary land use of the release area?		
5. What are the main vegetation types at the release site? Is similar to where the WRP were collected? (e.g. species, density, quality)?		
6. What is the approximate total area of suitable habitat (hectares)?		
7. Does the release area have a resident WRP or brushtail possum population? If known, please provide any details, including details of any observations, monitoring or surveys completed. <i>Note: land holders, local government authorities (LGA) or NRM groups may be able to provide some of this information.</i>		
8. Are any water sources available to native fauna, and if yes, what are they?		
9. Please outline any measures in place to manage feral animals.		
10. What is the sex ratio of WRP to be released? Are there any family relationships e.g. parent/offspring, bonded pairs, rehabilitated together?		
11. How is the release to be undertaken (soft or hard release, installation of artificial dreys, time of day etc.)?		
12. Who will undertake the release? Please list all animal handlers likely to be involved, including their experience in handling and releasing WRP.		
13. Will the success of the release be evaluated? Please describe any proposed monitoring post release. <i>Note: it is important to monitor post-release survival to determine how successful rehabilitation and release protocols are and to continuously improve them.</i>		

**Requirements/Conditions:**

1. Where WRP cannot be returned to point of capture, identified release areas should be as close as possible to the individuals' home range.
2. A section 40 authorisation under the *Biodiversity Conservation Act 2016* must be acquired if an identifier\* is placed on individuals.

*\*As outlined in the BC Act, an identifier means a tag, mark, brand, electronic device or other thing of a prescribed kind, designed or used to identify, track or trace an organism.*

**Approval**

Providing an identifier is not attached, a DBCA Wildlife Officer can assess this type of release and section 40 approval is not required. Application may be referred to Species and Communities as required.

**Release of five (5) or more rehabilitated (injured or abandoned) western ringtail possums (WRP)**

Releases of five (5) or more WRP may require a full translocation proposal.

Please contact the Species and Communities Program for further information in relation to the requirements for releases of this size via [speciesandcommunities@dbca.wa.gov.au](mailto:speciesandcommunities@dbca.wa.gov.au).



## Appendix 2:

**ACCESS TO LAND TO RELEASE FAUNA**

Pursuant to regulation 101 of the *Biodiversity Conservation Regulations 2018*, a person who is authorised to carry out a **designated activity** under a licence must not, for the purposes of the designated activity, enter land that is not in the possession or under the control of the holder of the licence without written authorisation of an owner or occupier of the land to enter the land and to carry out the designated activity.

<b>Designated Activity</b>	Releasing fauna
<b>Fauna species details</b>	
<b>Location/s</b>	

**Person / organisation authorised to access land**

<b>Name</b>	
<b>Licence No. (reg 35)</b>	

**Authorisation**

<b>Authorisation is valid</b>	<input type="checkbox"/>	Until reg 35 licence expiry of listed person / organisation		
	<input type="checkbox"/>	From	___/___/_____	to ___/___/_____
<input type="checkbox"/>	<b>I give approval for the person / organisation listed on this authorisation to release fauna at the above-mentioned location.</b>			
<b>As the</b>	<input type="checkbox"/>	Land owner		
	<input type="checkbox"/>	Land occupier		
<b>Name</b>				
<b>Contact no. / email</b>				
<b>Signature</b>		<b>Date signed</b>	___/___/_____	

*NOTE: This is not a prescribed form. Written authorisation to access land for this designated activity may be provided by a land owner/occupier in any format and should detail location (including lot or location number, street/road, suburb and local government authority), land owner or occupier name, the time period that the authorisation is valid for, and be signed and dated.*

*A land owner/occupier may revoke an access to land permission at any time.*