



Australian Government

Department of the Environment,
Water, Heritage and the Arts



Significant impact guidelines for the vulnerable western ringtail possum (*Pseudocheirus occidentalis*) in the southern Swan Coastal Plain, Western Australia

Nationally threatened species and ecological communities
EPBC Act policy statement 3.10

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Introduction

The purpose of this policy statement is to assist you in determining whether a proposed action is likely to have a significant impact on the western ringtail possum (*Pseudocheirus occidentalis*) in the southern Swan Coastal Plain, Western Australia.

The western ringtail possum is listed as vulnerable under the Australian Government *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Listed threatened species and ecological communities are a matter of national environmental significance. Under the EPBC Act an action will require approval from the federal environment minister if the action has, will have, or is likely to have a 'significant impact' on a matter of national environmental significance.

The southern Swan Coastal Plain region is one of the most important areas for the western ringtail possum, and as such, particular care should be taken when planning development in this region.

This policy has been prepared based on the best available scientific information, and in consultation with a wide range of experts including members of the western ringtail possum recovery team. It recognises that information on the western ringtail possum is incomplete and that there are knowledge gaps. As knowledge improves, the policy will be revised.

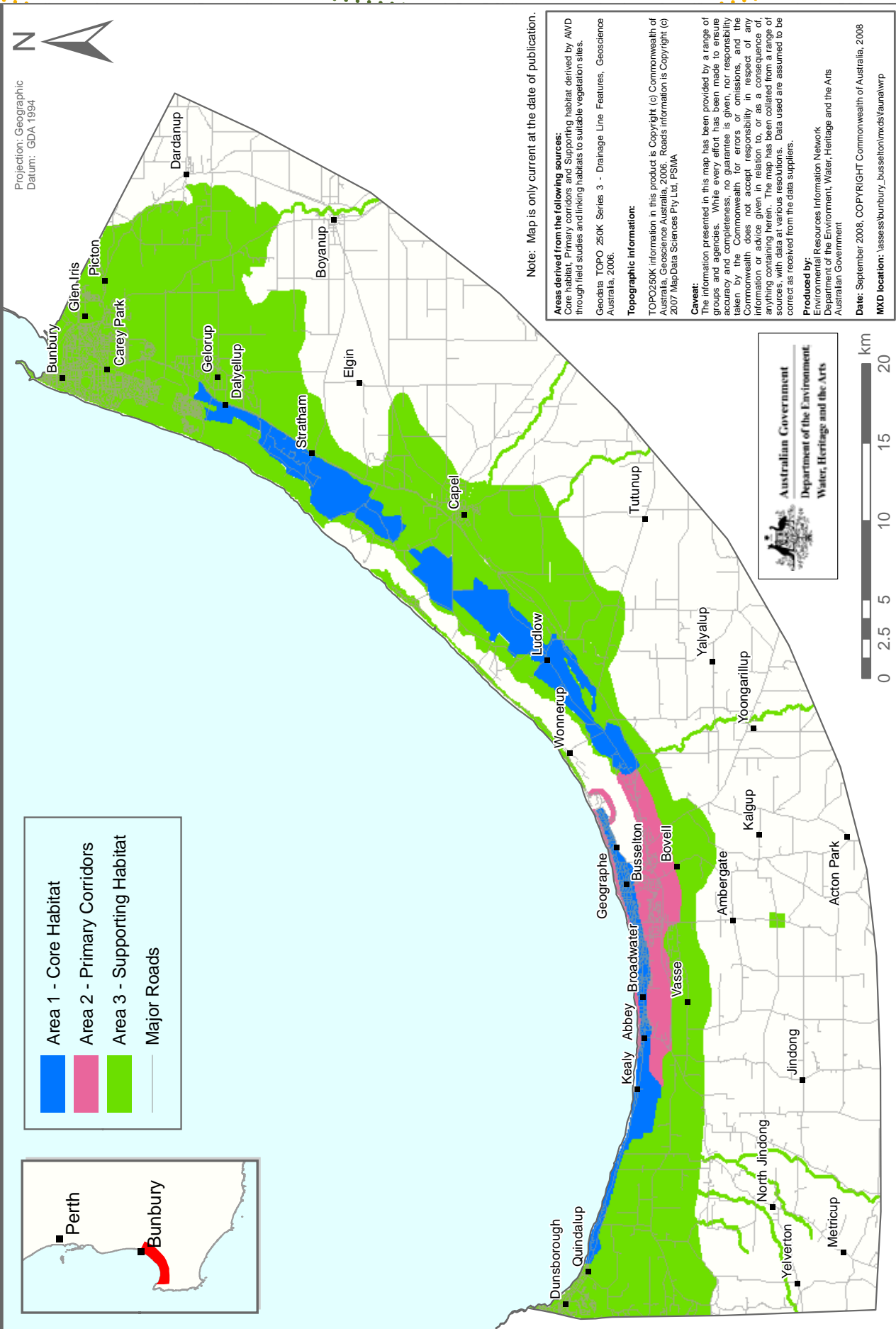
Area of policy application

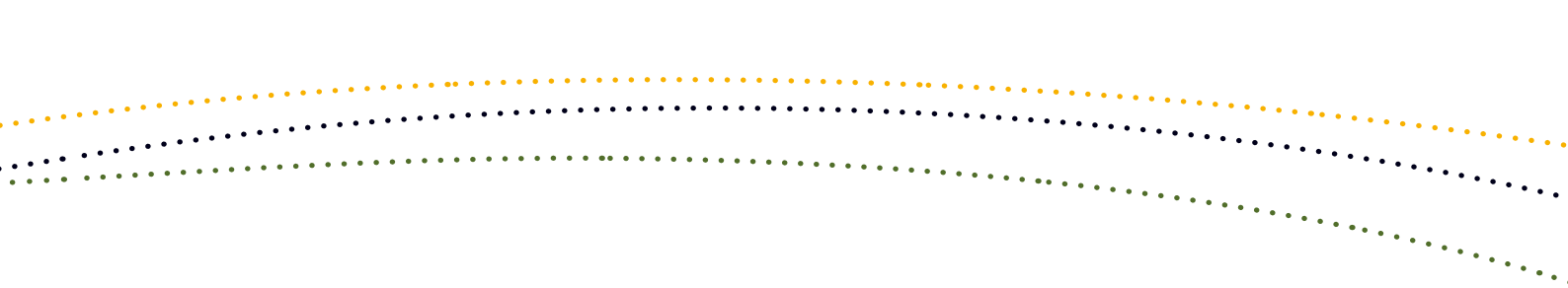
This policy statement applies only to actions and impacts on the western ringtail possum in the southern Swan Coastal Plain, Western Australia, including the area between Bunbury and Dunsborough from the base of the Whicher Scarp to the coast (see Figure 1). This region is subject to extensive development activities, a number of which are likely to affect the western ringtail possum.

This policy statement should be read in conjunction with the *Background paper to EPBC Act policy statement 3.10* and *EPBC Act policy statement 1.1 significant impact guidelines – matters of national environmental significance*. Consideration will also need to be given to the likely impacts on other matters of national environmental significance.



Figure 1: Important areas for the Western Ringtail Possum in the Southern Swan Coastal Plain





What other laws protect the western ringtail possum?

The western ringtail possum is also listed as 'fauna that is rare or likely to become extinct' under the Western Australian *Wildlife Conservation Act 1950 (Wildlife Conservation (Specially Protected Fauna) Notice 2006)*. If your activity could affect the species or individual animals you should contact the relevant state and local authorities regarding your obligations.

Background: The western ringtail possum

The western ringtail possum is a medium-sized marsupial weighing up to 1.3 kg and 40 cm in body length. The fur is dark brown above with cream to grey fur underneath. The tail grows to 41 cm long and terminates in a white tip.

Once widely distributed across southern and south-western Western Australia, the western ringtail possum now occurs only in south-western Western Australia and its distribution is patchy. The species is most commonly recorded in coastal or near coastal forest that includes peppermint (*Agonis flexuosa*) trees as a major component.

There have been extensive local declines in the northern and inland parts of the original range of the species. Much of the former habitat of the species was cleared or fragmented during the agricultural development of south-western Western Australia. This original habitat loss, coupled with ongoing loss and degradation of habitat and other threatening processes, has contributed to a restriction of the species range. Currently, the overall population trend for the species is declining.

Why is the southern Swan Coastal Plain important for the western ringtail possum?

The southern Swan Coastal Plain is considered to be important for the western ringtail possum because it has a number of unique characteristics, including:

- the highest known density populations
- dense and productive peppermint habitat, and
- some areas of habitat where the brushtail possum (*Trichosurus vulpecula*) does not co-occur with the western ringtail possum and therefore doesn't compete with it for resources.

The area also supports the largest known population of the western ringtail possum, with the greatest potential to provide recruits to adjacent areas. This population may form a critical resource for survival of the species. These unique characteristics of the southern Swan Coastal Plain make it essential to preserve the key functions of local habitat to support the long term recovery of the species.

Additional information on the western ringtail possum, its habitat and ecology can be found in the accompanying background paper. The background paper should be read in conjunction with this policy statement.





What is the Australian Government trying to achieve for the western ringtail possum?

The Australian Government's goal is to achieve the recovery of the western ringtail possum by ensuring that the species is self-sustaining and no longer threatened.

The southern Swan Coastal Plain is under high development pressure, including in some areas containing prime habitat for the western ringtail possum. The aim of this policy is to prevent significant impacts on the possum and its habitat in the southern Swan Coastal Plain and ensure the region contributes to the continued functioning of the possum population by:

- protecting remnant habitat patches
- ensuring the possum can persist in the Busselton urban area
- expanding habitat, and
- maintaining and creating habitat connections to allow movement of individuals and facilitate genetic exchange between local populations.

Three different areas of habitat within the southern Swan Coastal Plain have been identified as necessary for the persistence and recovery of the western ringtail possum. The location of these habitat areas is indicated in Figure 1.

Area 1 – Core habitat

- maintain and enhance the value of existing habitat, particularly for breeding.

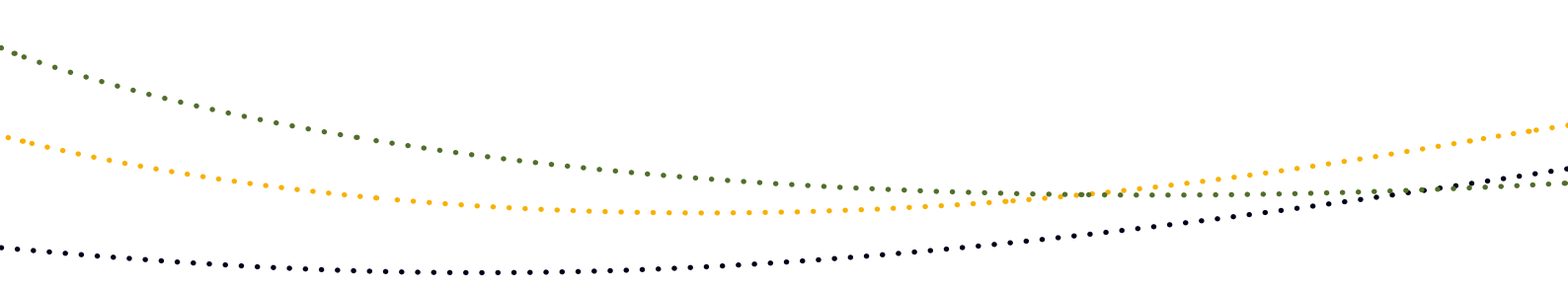
Area 2 – Primary corridors

- provide connectivity between areas of core habitat, improving opportunities for dispersal. Over time, the objective is to consolidate the existing habitat in this area and build additional high quality habitat to replace that lost from Area 1.

Area 3 – Supporting habitat

- improve habitat quality and connectivity on the plains and to the hinterland, thus increasing opportunities for foraging, breeding and dispersal.

It is acknowledged that in the case of Busselton, the existing planning scheme has allowed for significant change in urban form and density. This policy does not intend to stop development within these areas, but aims to minimise the loss of habitat. Where habitat loss is unavoidable, the aim is to retain as much ecological value as possible and replace the lost value in a manner that contributes to the conservation and future recovery of the species. Any replacement needs to be timely, be of suitable scale and quality and be in an ecologically relevant location.



What does this mean for actions in western ringtail possum habitat?

If you think that your action is likely to have a significant impact on the western ringtail possum (or if you are unsure) you should refer the action to the federal environmental minister before commencing the action. The minister will make a decision within 20 business days on whether approval is required under the EPBC Act. Substantial penalties apply for taking an action that has, will have or is likely to have a significant impact without approval. More information on referral and assessment can be found at www.environment.gov.au/epbc/assessments/process.html.

What sorts of actions are likely to have a significant impact on the western ringtail possum?

Whether or not an action is likely to have a significant impact depends on the sensitivity, value and quality of the environment which is being impacted and upon the intensity, duration, magnitude and geographic extent of the impacts. The potential for an action to have a significant impact will therefore vary from site to site.

Having had regard to the available information and consultations with experts in the field, the Department of the Environment, Water, Heritage and the Arts is of the view that the following criteria are a reasonable basis to judge the likelihood of a significant impact. However, actions always need to be assessed on a case by case basis with consideration for the context of the action, impact and the environment.





Significant impact assessment

There is a real chance or possibility of a significant impact on the species if the action will result in one or more of the following:

Area 1 – Core habitat

- clearing in a remnant habitat patch that is greater than 0.5 hectares in size
- clearing of more than 50 per cent of a remnant habitat patch that is between 0.1 and 0.5 hectares in size, or
- fragmentation of existing habitat linkages.

Area 2 – Primary corridors

- clearing in a remnant habitat patch that is greater than 0.5 hectares in size
- clearing of more than 50 per cent of a remnant habitat patch that is between 0.1 and 0.5 hectares in size
- fragmentation of existing habitat linkages, or
- degradation or sterilisation of an area to the extent that appropriate habitat could not be enhanced or re-established in the future.

Area 3 – Supporting habitat

- clearing in a remnant habitat patch that is greater than 0.5 hectares in size
- clearing of more than 50 per cent of a remnant habitat patch that is between 0.2 and 0.5 hectares in size, or
- fragmentation of existing habitat linkages.

Notes:

1. 'Habitat linkage' means any continuous native or exotic vegetation that allows animals to move between areas. Linkages can be as fine-scale as canopy cover between neighbouring trees. 'Fragmentation' of these linkages means to create a disjuncture between patches that affects the ability of animals to move, for example habitat trees separated by more than six metres.
2. Areas of relatively poor-quality habitat (for example dispersed individual habitat trees) in key connective corridors will still have high ecological value. The impact of their loss may depend on the availability of alternative corridors, the number of trees removed and the ability of the landscape to function following the proposed action.
3. The thresholds in the box above give guidance to the level of impact that is likely to be significant for the western ringtail possum at a site. They are not intended to be exhaustive or prescriptive, but rather to highlight the need to maintain the ecological function in the important areas.

How can my action avoid having a significant impact on the western ringtail possum?

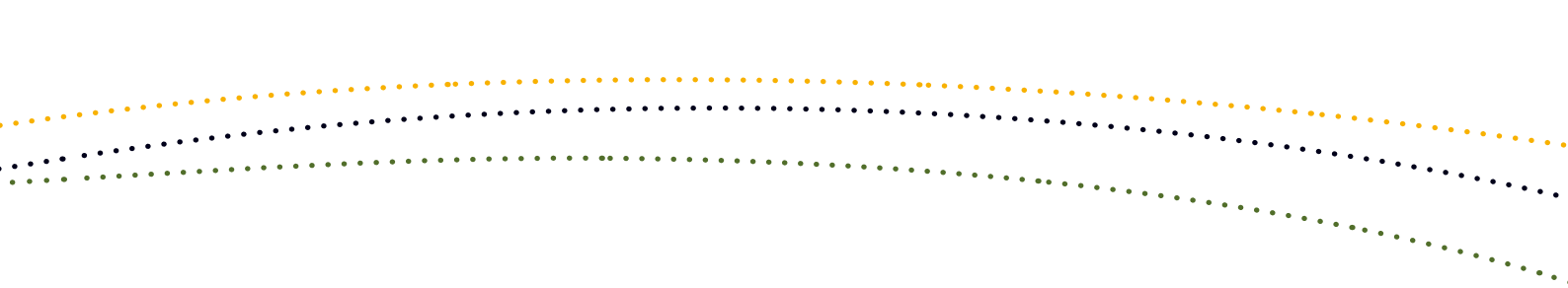
Proposed actions should be designed to avoid impacts by retaining existing habitat patches, and to create additional habitat to compensate for any that must be lost. You can minimise the amount of habitat cleared through careful project design, augment existing habitat through re-planting, and create more habitat than you clear by re-planting peppermint trees and sedge understorey on the site and nearby. The following measures may assist in mitigating impacts on the western ringtail possum:

- retain and improve remnant habitat patches, including corridors
- retain peppermint trees with a diameter at breast height of greater than ten cm, while also avoiding:
 - soil disturbance within three meters of the trunk
 - heavy branch pruning, which may affect connectivity of the canopy, and
 - filling around the base of trees.
- avoid creating breaks of six metres or more in existing canopy cover
- use landscape plantings as a means of creating or improving connectivity. For example:
 - plant and nurture new peppermint trees (and sedge understorey) to replace any that must be removed

- plant and nurture additional peppermint trees (and plant sedge understorey) to fill in gaps or enhance existing habitat
- where solid fences are required, construct to a height of 180–240 cm to allow possums to move around with less risk of dog attack.

Care should be taken to ensure that any mitigation and/or management actions implemented for the western ringtail possum do not have a negative impact on other matters of national environmental significance. The mitigation and management proposed needs to take into account the needs of all matters of national environmental significance likely to be impacted.





Will translocating western ringtail possums mitigate or offset the impact of my action?

Translocation does not reduce the impact of an action, and is not considered to be a mitigation or offset measure for the purposes of EPBC Act assessment. In situ conservation, and habitat augmentation, is the priority for the Department of the Environment, Water, Heritage and the Arts when assessing the impact of habitat loss associated with development.

Where can I get more information?

The background paper for this policy statement provides a biological and ecological context for the significant impact thresholds and mitigation measures.

Other EPBC Act policy statements are available to help you to understand the EPBC Act and your obligations. They are available from the department's website at: www.environment.gov.au/epbc/guidelines-policies.html, or by contacting the community information unit by email: ciu@environment.gov.au or by phone: 1800 803 772.

Further information on this and other listed threatened species and ecological communities can be found on the department's species profiles and threats database (SPRAT) at: www.environment.gov.au/cgi-bin/sprat/public/sprat.pl.

PHOTO CREDITS

FRONT COVER (left to right): Western Ringtail Possum in bag (A Wayne, WA DEC), Western Ringtail Possum in tree (A Wayne, WA DEC)
INTERNAL PAGES: Western Ringtail Possum in bag (A Wayne, WA DEC), Western Ringtail Possum in tree (A Wayne, WA DEC)
BACK COVER (left to right): Western Ringtail Possum in bag (A Wayne, WA DEC), Western Ringtail Possum in tree (A Wayne, WA DEC)

