Australian Government

Department of Climate Change, Energy, the Environment and Water

[DRAFT] Referral guidelines for clearing or modification of native vegetation on King Island under the EPBC Act

Nature Positive Regulation Division

Cataloguing data

This publication (and any material sourced from it) should be attributed as: DCCEEW 2024, Draft Referral guidelines for the clearing or modification of native vegetation on King Island under the EPBC Act, Department of Climate Change, Energy, the Environment and Water, Canberra, November. CC BY 4.0.

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Acknowledgements

The authors thank reviewers for their input.

Acknowledgement of Country

We acknowledge the Traditional Owners of Country throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past and present.

Disclaimer

This document is a draft version for consultation purposes only. Consultation feedback and images will be incorporated into the final product.

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This guide was developed to support proponents, project managers and consultants when deciding whether to refer actions involving clearing or modification of native vegetation on King Island, Tasmania under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Under the EPBC Act, a person must not take an action[1] that has, will have or is likely to have a significant impact on any of the matters of national environmental significance (MNES) without approval from the Australian Government Minister for the Environment (the Minister).

It is the responsibility of the person proposing an action to consider whether their project is likely to significantly impact MNES. Where there is any uncertainty, the department recommends that you refer your action.

Introduction

King Island is home to a range of native plants and animals, some endemic to King Island, and several of which are under threat of extinction. According to Geyle et al. (2018), King Island hosts the top three Australian birds at greatest risk of extinction:

- the King Island Brown Thornbill
- Orange-bellied Parrot and
- King Island Scrubtit.

About two-thirds of King Island's vegetation has been cleared for agricultural production since European colonisation (Figure 1). Frequent and intense fires on King Island have resulted in the loss of rainforest and wet forest species. More recently, fires have burnt extensive tracts of the island's remaining native vegetation. Much of the island's remnant native vegetation occurs in small and isolated patches.

Several fauna and flora species including the Glossy Black-Cockatoo, Gang-gang Cockatoo, Forty-spotted Pardalote, Spotted-tailed Quoll, Wombat, and Coast Banksia have already become locally extinct on King Island, and the King Island Emu is globally extinct.

The King Island Biodiversity Management Plan states, in relation to endemic and threatened species: *'It is important to manage these valuable natural assets that make King Island special to ensure their future. The management of biodiversity, including threatened species, is a crucial part of protecting the environment. This does not necessarily mean dramatically changing existing land use practices, but instead developing better approaches within them.'*

1 An action is often called a 'proposal' or 'project', but under the EPBC Act it is called an action.

These guidelines are primarily focused on actions that will involve the clearing or modification of native vegetation on King Island (excluding the small surrounding islands), including:

- clearing or thinning vegetation, including for agricultural purposes, infrastructure development, mining and other development
- introducing grazing, significantly intensifying grazing or changing from grazing to cropping
- substantially changing or intensifying methods of weed control or fertiliser use
- improving pasture by introducing exotic plant species or by mechanical disturbance
- irrigation expansion

These guidelines are general in nature and proponents should obtain and apply detailed and up-to-date information, contemporary research, as well as information from the department and from local and state government agency resources.

Figure 1 King Island showing native vegetation cover

Matters of National Environmental Significance on King Island

Five species of birds occurring on King Island bird are identified as priority species in the Threatened Species Action Plan 2022-2032. These are the

- King Island Scrubtit
- King Island Brown Thornbill
- Orange-bellied Parrot
- Swift Parrot and
- Australasian Bittern.

One frog species occurring on King Island, the Green and Golden Frog (*Litoria raniformis*), was also identified as a priority species.

These, and other key MNES that may be directly impacted by clearing and modification of native vegetation on King Island, are listed in Table 1.

The Australian Fairy Tern (*Sternula nereis nereis* – Vulnerable); Eastern Hooded Plover (*Thinornis cucullatus cucullatus* - Vulnerable); Short-tailed Shearwater (*Ardenna tenuirostris* - Migratory); and many other seabirds and migratory shorebirds that are listed as Migratory under the EPBC Act are known to occur on King Island, either as resident breeding populations, or visiting summer migrants. These species are grouped collectively in Table 1 because they have similar general habitat requirements. For a full list of these species, use the Protected Matters Search Tool.

MNES which are protected under the EPBC Act and may be indirectly impacted by clearing and modification of native vegetation on King Island are listed in Table 2.

These guidelines do not attempt to cover all the MNES on King Island that should be considered. The lists of MNES at Tables 1 and 2 are not exhaustive, and while current at the date of publication, may become out of date over time.

The following databases can be used to identify MNES that may be present at an action site, and for further information on potential impacts to MNES:

Protected Matters Search Tool – the Australian government's free, interactive online website application that can help identify the potential for protected matters to occur on or near a site.

Species Profile and Threats (SPRAT) – the Australian government's free database that provides information about species and ecological communities listed under the EPBC Act.

Atlas of Living Australia – a collaborative, digital, open infrastructure that pulls together Australian biodiversity data from multiple sources.

eBird – a collaborative bird database used by professional and amateur birdwatchers.

Natural Values Atlas - the Tasmanian government's authoritative, comprehensive information on Tasmania's natural values.

LISTmap - a free, online map application that allows people to view, create and share their own customised maps of Tasmania, which is managed by the Tasmanian Government. Layers are available for the TASVEG vegetation type mapping that is referenced in these guidelines.

Table 1. Key MNES on King Island likely to be directly impacted by clearing or modification of native vegetation.

Fauna	King Island Scrubtit	*Acanthornis magna greeniana*	Critically Endangered
	Orange-bellied Parrot	*Neophema chrysogaster*	Critically Endangered
	Swift Parrot	*Lathamus discolor*	Critically Endangered
	King Island Brown Thornbill	*Acanthiza pusilla magnirostris*	Endangered
	Australasian Bittern	*Botaurus poiciloptilus*	Endangered
	King Island Green Rosella	*Platycercus caledonicus brownii*	Vulnerable
	King Island Black Currawong	*Strepera fuliginosa colei*	Vulnerable
	Blue-winged Parrot	*Neophema chrysostoma*	Vulnerable
	Green and Golden Frog	*Litoria raniformis*	Vulnerable
	Multiple shorebirds and sea bird species		Vulnerable and/or Migratory
Flora	Scrambling Ground-fern	*Hiya distans*	Endangered
	Leafy Greenhood	*Pterostylis cucullata*	Vulnerable
	Swamp Fireweed, Smooth-fruited Groundsel	*Senecio psilocarpus*	Vulnerable
Ecological communities	Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (*Eucalyptus ovata / E. brookeriana*)		Critically Endangered
	King Island Scrub Complex		Endangered

Table 2. Additional Key MNES on King Island likely to be indirectly impacted by clearing or modification of native vegetation.

Fauna	Australian Grayling	*Prototroctes maraena*	Vulnerable
Wetlands	Lavinia Ramsar site		RAMSAR Listed

Note: while the King Island Scrubtit, King Island Brown Thornbill, King Island Green Rosella and King Island Black Currawong are all sub-species, for simplification they may be referred to as 'species' in this document.

Table 3 lists MNES the department consider likely to be directly impacted by clearing or modification of native vegetation. It also cross-references where they are likely to occur in specific vegetation communities (as classified using TASVEG). Note that Table 3 is intended as a broad guide and is not exhaustive. It does not replace the need for ground truthing, ecological surveys and further assessment and professional advice to determine what MNES may be impacted by an action.

In addition to reviewing Table 3 and the key species profiles at Attachment A, proponents should refer to further information on the listed species and ecological communities in published Recovery Plans, Conservation Advices, and other relevant literature. Therefore, the department suggest going to the original sources of information for the most up to date information, much of which is available on the Species Profile and Threats (SPRAT) database.

How could my action impact on Matters of National Environmental Significance (MNES)?

The following steps should be followed to understand what MNES may be directly impacted by land clearing or modification action on King Island:

Step 1

Identify which TASVEG vegetation mapping units will be affected by your action using both TASVEG Live and the most recent TASVEG digital vegetation map. These databases are available at TASVEG - The Digital Vegetation Map of Tasmania.

Step 2

Use Table 3 and the Protected Matters Search Tool to identify if any MNES could occur in the vegetation types identified in Step 1.

Step 3

Use Table 4 to compile information to assist understanding of habitat quality and importance for MNES, and use information in the species profiles in Attachment A and SPRAT to clarify potential impacts on MNES.

Step 4

Refer your project if it will, or is likely to, have a significant impact on MNES, or if you are unsure.

Table 3. MNES likely to occur in vegetation community types on King Island.

Ecosystem class	TASVEG community types (TASVEG codes)	King Island Scrubtit	Orange-bellied Parrot	Swift Parrot	King Island Brown Thornbill	Australasian Bittern	King Island Green Rosella	King Island Black Currawong	Blue-winged Parrot	Seabirds and shorebirds	Green and Golden Frog	Scrambling Ground-fern	Leafy Greenhood	Swamp Fireweed, Smooth-fruited Groundsel	*E. ovata* / *E. brookeriana* forest and woodland	King Island Scrub Complex
Forest/Woodland Communities	King Island Eucalypt woodland (DKW) *Eucalyptus ovata* forest and woodland (DOV) *Eucalyptus brookeriana* wet forest (WBR) *Eucalyptus globulus* King Island forest (WGK)	✓		✓	✓		✓	✓	✓			✓			✓	
	Acacia melanoxylon swamp forest (NAF) *Leptospermum* forest (NLE)	✓		✓	✓		✓	✓	✓			✓				
	Melaleuca ericifolia swamp forest (NME) *Leptospermum lanigerum - Melaleuca squarrosa* swamp forest (NLM) Rainforest fernland (RFE)	✓	✓	✓	✓		✓	✓	✓			✓				
Grassland communities	Coastal grass and herbfield (GHC)		✓				✓	✓	✓	✓				✓		
Scrub and heathland communities	Scrub complex on King Island (SSK) (note this community can be classified as a forest when mature)	✓		✓	✓		✓	✓	✓			✓				✓
	Acacia longifolia coastal scrub (SAL) Coastal scrub on alkaline sands (SCA) Coastal heathland (SCH) Coastal scrub (SSC) Rookery halophytic herbland (SRH) Spray zone coastal complex (SSZ)	✓	✓		✓		✓	✓	✓	✓			✓	✓		
	Leptospermum lanigerum scrub (SLL) *Leptospermum scoparium* heathland and scrub (SLS) *Melaleuca squarrosa* scrub (SMR) Broadleaf scrub (SBR)		✓				✓	✓				✓	✓			

Ecosystem class	TASVEG community types (TASVEG codes)	King Island Scrubtit	Orange-bellied Parrot	Swift Parrot	King Island Brown Thornbill	Australasian Bittern	King Island Green Rosella	King Island Black Currawong	Blue-winged Parrot	Seabirds and shorebirds	Green and Golden Frog	Scrambling Ground-fern	Leafy Greenhood	Swamp Fireweed, Smooth-fruited Groundsel	*E. ovata* / *E. brookeriana* forest and woodland	King Island Scrub Complex
Saline communities	Saline sedgeland/rushland (ARS) Succulent saline herbland (ASS) Saline aquatic herbland (AHS)		✓			✓		✓	✓	✓				✓		
Freshwater wetlands	Fresh water aquatic herbland (AHF) Lucustrine herbland (AHL) Fresh water aquatic sedgeland and rushland (ASF) Wetland (undifferentiated) (AWU) *Restionaceae rushland* (MRR)		✓			✓		✓	✓		✓			✓		
Eucalypt Plantations	*Eucalypts* - Plantations for silviculture – hardwood (FPH)	✓		✓	✓		✓	✓	✓							
Paddock trees with hollows or nests	May be in several vegetation communities, including: Regenerating cleared land (FRG) Improved pasture with native tree canopy (FAC) *Pteridium esculentum* fernland (FPF)						✓	✓								

Table 4. Information to guide habitat quality and importance for MNES on King Island

Measure	Information required
Vegetation classification	Identify TASVEG vegetation mapping units on the site, provide map of boundaries - TASVEG - The Digital Vegetation Map of Tasmania.
Vegetation composition	Undertake and provide a comprehensive botanical inventory of the site presenting the top three dominant species for upper, mid and ground stratum of each TASVEG mapping unit on the site. To assist in identifying habitat and habitat quality for the King Island Scrubtit and King Island Brown Thornbill, undertake the following: • counts/density measures of *Melaleuca ericifolia* for each TASVEG mapping unit on the site • counts/density measures of *E. brookeriana, E. viminalis, E. globulus, E. obliqua,* and *E. ovata* for each TASVEG mapping unit on the site • review these habitat features against the habitat descriptions in Bell and Webb (2023).
Vegetation condition	Description of condition (e.g. grazing, fire history, invasive species pressures), and the level of plant recruitment for each TASVEG mapping unit on the site.
Vegetation structure	Description of structural complexity in each stratum i.e. number of species, % cover and average height of upper, mid and ground stratums. Assess the number and cover of mature and old growth trees.
Patch size	Patch size of each TASVEG mapping unit on the site on a map in hectares.
Vegetation connectivity	Nature of isolation or connectivity of the vegetation on the site, noting linear and remnant vegetation provides connective habitat for fauna species.
Habitat features	Presence and extent of forest debris (e.g. fallen trees and branches). Number, size and type of potential hollows and trees with old growth characteristics and suitability for specific species.
Hydrology	Hydrological nature of the site, water quality assessment, current flooding regime, historical changes to water flow and patterns. Assess the potential downstream impacts of clearing on water quality, in consideration of potential impacts to downstream MNES (including the Lavinia Ramsar site and aquatic habitat for the Green and Golden Frog and Australian Grayling).

Understanding potential significant impacts on MNES

Under the EPBC Act an action will require assessment if the action has, will have, or is likely to have, a significant impact on a MNES. These guidelines should be read in conjunction with the *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*. The Significant Impact Guidelines outline a self-assessment process, including detailed criteria, to assist you in deciding whether a referral may be required for MNES under the EPBC Act.

In self-assessing the potential negative impacts of your action on MNES, you must consider the scale, intensity, duration, frequency, environmental context of the action and the nature and potential impact pathways of the action. You should consider the significant impact criteria described in the Significant Impact Guidelines for each MNES. In undertaking a self-assessment, you should document your analysis and retain these records.

Attachment A provides basic profiles of key listed threatened species and ecological communities likely to be impacted by the clearing and modification of native vegetation on King Island.

If your proposal is likely to have a significant impact on MNES, consider avoidance, mitigation and offsets that might be required, taking into consideration the mitigation hierarchy as this will be considered during the assessment process. You should avoid impacts to the MNES wherever possible.

If impacts cannot be avoided, you must refer any proposed project that may have a significant impact to MNES on King Island. If you are not sure whether your project has the potential to result in a significant impact, the department recommends that you refer it. If you want to understand how the EPBC Act may apply to your proposed action, contact the department. Alternatively, you may seek to engage an environmental consultant.

Undertaking an action likely to have a significant impact on MNES without approval could have serious consequences, including civil and criminal penalties.

What clearing or modification of native vegetation should be referred?

You must consider you responsibilities under the EPBC Act when proposing any clearing or modification of native vegetation on King Island.

The remaining native vegetation on King Island is home to some of Australia's most threatened species. It is the only remaining habitat for several threatened endemic species. Geyle et al. (2018) estimated extinction risk for Australian birds and mammals and identified the species most likely to become extinct by 2038. They concluded that the King Island Brown Thornbill, Orange-bellied Parrot and King Island Scrubtit are the 1st, 2nd and 3rd most likely species to go extinct. King Island is the only

place in the world where the King Island Scrubtit, King Island Brown Thornbill, King Island Green Rosella and King Island Black Currawong occur.

As shown in Table 3, every native vegetation community on King Island contains potential habitat for one or more critically endangered species or ecological community. Even small amounts of remnant native vegetation within disturbed environments can provide connective habitat for protected fauna. It can also provide breeding habitat for protected bird species (for example mature paddock trees can provide breeding habitat for the King Island Green Rosella and King Island Black Currawong).

The conservation advices for the King Island Brown Thornbill and King Island Scrubtit state that:

- due to the highly restricted range and small population size of these species, all known occupied areas and suitable habitat within their known ranges is habitat critical to the survival of the species
- burnt or degraded areas not currently used by the species that may be suitable again in the future are also considered critical to their survival
- the primary cause for the decline of the species is the loss of habitat, through clearing, wildfire and degradation by grazing
- actions which remove habitat of these species would reduce the area of occupancy and interfere with the recovery of both species

Under the Significant Impact Guidelines, actions which reduce the area of occupancy or interfere with the recovery of a species are considered likely to have a significant impact. Clearing or disturbance of any habitat for the King Island Scrubtit or King Island Brown Thornbill is also likely to adversely affect habitat critical to the survival of a species; disrupt the breeding cycle of a population; and modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

Clearing of native vegetation that connects two or more patches of suitable habitat is likely to fragment an existing population into two or more populations.

There is a high risk that any clearing or modification of native vegetation on King Island will have a significant impact on MNES. It is strongly recommended to refer any clearing or modification of native vegetation on King Island

If you are uncertain about the need to refer, it is recommended that you refer your action or contact the department.

What activities are exempt?

Certain actions are exempt from the requirement of assessment and approval under the EPBC Act. These include lawful continuations of a use of land, sea or seabed that started before 16 July 2000 and actions that were legally authorised before 16 July 2000. There are several criteria that must be satisfied to rely on any such exemptions. Learn more about Agricultural actions exempt from approval under national environmental law.

A forestry operation can be exempt from Part 3 of the EPBC Act if it's undertaken according to a Regional Forestry Agreement (RFA). Learn more about Regional Forestry Agreements.

How to submit a referral under the EPBC Act

A referral is a written request for the Minister to decide whether the action you propose needs assessment and approval under the EPBC Act. Some of the information required to refer an action may be technically complex, so you may need to engage an environmental consultant.

You can refer your project via the EPBC Act Business Portal. For guidance on how to refer your action, see the step-by-step guide to the referral and assessment process.

More information

You can request a pre-referral meeting with the department to discuss your project early in your planning process (and to assist in deciding whether to refer an action). For more information see Pre-referral meeting for EPBC Act assessment process.

For further information you can contact the department at epbc.referrals@dcceew.gov.au or call on 1800 423 135 between 9am and 5pm AEST/AEDT.

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Attachment A - Profiles of relevant King Island MNES

MNES most likely to be directly impacted by the clearing and modification of native vegetation on King Island. Note that this information may become outdated, so the department recommends always referring to other information sources on listed threatened species, such as the Species Profile and Threats (SPRAT) database.

King Island Scrubtit

Scientific Name: *Acanthornis magna greeniana*

EPBC Act Status: Critically Endangered

Summary

The King Island Scrubtit is endemic to King Island, has a very restricted distribution, and is estimated to consist of a population of 30-70 mature individuals.

The conservation advice states that habitat critical to the survival of the subspecies is all known occupied areas and suitable habitats (breeding and foraging) within the known range of the subspecies, including degraded areas that may become suitable habitat in the future.

The conservation advice also states that 'the small size of the King Island Scrubtit population makes all surviving individuals at any site on the island crucial to the long-term survival of the subspecies.'

Habitat

The King Island Scrubtit is most commonly found in remnant patches of mature swamp paperbark (*Melaleuca ericifolia*) forest and other forest communities supporting mature swamp paperbark with a continuous and structurally complex understory. King Island Scrubtits have also been found at sites where *M. ericifolia* was absent or not a canopy species, however *M. ericifolia* is generally present close by.

Key habitat on King Island for the King Island Scrubtit includes:

- *Melaleuca ericifolia* swamp forest (NME)
- Eucalypt plantations in Pegarah State Forest
- Coastal scrub on alkaline sands (SCA)
- *Acacia melanoxylon* swamp forest (NAF)
- *Eucalyptus brookeriana* wet forest (WBR)
- Scrub complex on King Island (SSK)

Bell and Webb (2023) described in detail the habitat requirements of the King Island Scrubtit. They concluded that habitat critical to the survival of the subspecies is all TASVEG mapping units that support mature *M. ericifolia*, and *M. ericifolia* regrowth.

Information Sources:

DCCEEW (2023) *Conservation Advice for* Acanthornis magna greeniana *(King Island Scrubtit)*

Bell & Webb (2023) *Defining and mapping habitat requirements to support the survival of King Island threatened birds*

SPRAT Profile

King Island Brown Thornbill

Scientific Name: *Acanthiza pusilla magnirostris*

EPBC Act Status: Endangered

Summary

The King Island Brown Thornbill is endemic to King Island, has a very restricted distribution, and is estimated to consist of a population of 50-200 mature individuals. It has been ranked as the Australian bird most likely to go extinct within the next 20 years (Geyle et al 2018).

The conservation advice states that habitat critical to the survival of the subspecies is all known occupied areas and suitable habitats (breeding and foraging) within the known range of the subspecies, including degraded areas that may become suitable habitat in the future.

Habitat

The King Island Brown Thornbill is most commonly found in remnant patches of forest and woodland where *Eucalyptus* species are present as a dominant or subdominant component of the canopy, including hardwood plantations.

Key habitat on King Island for the King Island Brown Thornbill includes:

- Eucalypt plantations in Pegarah State Forest
- *Eucalyptus brookeriana* wet forest (WBR)
- *Eucalyptus globulus* King Island forest (WGK)
- *Acacia melanoxylon* swamp forest (NAF)
- *Melaleuca ericifolia* swamp forest (NME)
- King Island eucalypt woodland (DKW)
- Scrub complex on King Island (SSK)

Bell and Webb (2023) included a detailed description of the habitat requirements of the King Island Brown Thornbill. They concluded that habitat critical to the survival of the subspecies is all TASVEG mapping units that support mature eucalypts, and eucalypt regrowth.

Information Sources:

DCCEEW (2023) *Conservation Advice for* Acanthiza pusilla magnirostris *(King Island Brown Thornbill)*

Bell & Webb (2023) *Defining and mapping habitat requirements to support the survival of King Island threatened birds*

SPRAT Profile

King Island Green Rosella

Scientific Name: *Platycercus caledonicus brownii*

EPBC Act Status: Vulnerable

Summary

The King Island Green Rosella is endemic to King Island, has a very restricted distribution, and is estimated to consist of a population of less than 500 mature individuals.

Considering the significant impact guidelines criteria for a significant impact on vulnerable species, and given that there is only one population of the subspecies, all of the subspecies would be considered an 'important population'.

Habitat

The King Island Green Rosella forages in a range of heath, scrub and forest communities on King Island. However, breeding is restricted to habitats supporting eucalypts with hollows for nesting.

Breeding habitat consists of mature trees with hollows, typically in dry or wet eucalypt forests.

Key foraging habitat on King Island consists of:

- All forest communities listed in Table 3.
- Eucalypts - Plantations for silviculture – hardwood (FPH)

Key breeding habitat on King Island consists of:

- Mature eucalypts in native vegetation or within agricultural land.

Information Sources:

TSSC (2015) *Conservation Advice* - Platycercus caledonicus brownii - *green rosella (King Island)*

DPIPWE (2020) *Listing Statement for* Platycercus caledonicus subsp. brownii *(King Island green rosella)*

SPRAT Profile

King Island Black Currawong

Scientific Name: *Strepera fuliginosa colei*

EPBC Act Status: Vulnerable

Summary

The King Island Black Currawong is endemic to King Island, has a restricted distribution, and although population estimates are not based on reliable information, the population is estimated to consist of no more than 250 mature individuals (Garnett & Baker 2020).

The Action Plan for Australian Birds 2020 (Garnett and Baker, 2021) identified this subspecies has a small population that is likely to be declining, and so suggested that the subspecies is more threatened than its status (Vulnerable) suggests.

The King Island population of the King Island Black Currawong is considered an important population given that there is only one population of the subspecies, which only occurs on King Island and so is a key source population for breeding or dispersal.

Habitat

The black currawong is generally found in wetter eucalypt forests, it also frequents cool rainforest and in lowlands it is more restricted to denser forests and moist gullies. On King Island, black currawongs occur in all vegetation types including feeding amongst seaweed and in pasture.

Key habitat on King Island for this subspecies consists of:

- All native vegetation communities listed in Table 3.

Information Sources:

TSSC (2015) *Conservation Advice* Strepera fuliginosa colei *Black Currawong (King Island)*

Garnett & Baker (2021) *The Action Plan for Australian Birds 2020*

SPRAT Profile

Orange-bellied Parrot

Scientific Name: *Neophema chrysogaster*

EPBC Act Status: Critically Endangered

Summary

The Orange-bellied Parrot is a migratory bird, which breeds only in coastal south-west Tasmania and spends the winter in coastal Victoria and South Australia. King Island is a key stop-over point of the species' migration across Bass Strait.

There are fewer than 100 mature birds in the wild population.

Habitat

Non-breeding Orange-bellied Parrots feed on the seeds and flowers of low shrubs or prostrate vegetation, and roost in dense shrubs, usually within 10 km of the coast. On King Island, most birds are sighted in saltmarsh dominated by Beaded Glasswort (*Sarcocornia quinqueflora*), flanked by tall dense Swamp Paperbark (*Melaleuca ericifolia*) forest.

Key habitat on King Island includes habitat for roosting and foraging and includes:

- Coastal scrubs and heathlands listed in Table 3
- Scrubs and heathlands listed in Table 3
- Saline sedgeland and herbland communities listed in Table 3
- Paperbark forest - *Melaleuca ericifolia* swamp forest (NME)
- Coastal grassland and herbfield (GHC)

Information Sources:

DELWP (2016) *National Recovery Plan for the Orange-bellied Parrot*

NRE Tas (2024) *Species Management Profile* - Neophema chrysogaster - *Orange-bellied Parrot*

Barrow (2008) *Orange-bellied Parrot Habitat Restoration and Management Project*

SPRAT Profile

Swift Parrot

Scientific Name: *Lathamus discolor*

EPBC Act Status: Critically Endangered

Summary

The Swift Parrot is a migratory bird that breeds in Tasmania during the summer and the population migrates north to mainland Australia for the winter.

There are believed to be less than 750 mature birds in the wild.

The species breeds occasionally in the north-west of Tasmania. There is potential foraging and nesting habitat for Swift Parrots on King Island.

Habitat

In the northern parts of Tasmania, breeding and post-breeding habitat is considered to mainly occur in the wetter forests where summer and autumn flowering eucalypt species are abundant.

Key habitat on King Island for this species includes:

- Blue gum forest - *Eucalyptus globulus* King Island forest (WGK)
- *Eucalyptus ovata* forest and woodland (DOV)
- Eucalypt woodland - King Island Eucalypt woodland (DKW)
- Brookers gum forest – Wet *Eucalyptus brookeriana* forest (WBR)
- *Leptospermum lanigerum - Melaleuca squarrosa* swamp forest (NLM)
- Eucalypts - Plantations for silviculture – hardwood (FPH)

Information Sources:

TSSC (2016) *Conservation Advice* Lathamus discolor *swift parrot*

DCCEEW (2024) *National Recovery Plan for the Swift Parrot* (Lathamus discolor)

SPRAT Profile

Australasian Bittern

Scientific Name: *Botaurus poiciloptilus*

EPBC Act Status: Endangered

Summary

The Australasian Bittern occurs across south-eastern and south-western Australia, with a global population of less than 2,000, and between 750-1,800 of those occurring in Australia. It is estimated that approximately 20-80 birds occur in Tasmania.

Habitat

The Australian Bittern occurs in freshwater wetlands and occasionally in estuaries or tidal wetlands. They favour freshwater habitats with permanent or seasonal water, particularly those dominated by sedges, rushes or reeds growing over a muddy or peaty substrate.

Key habitat on King Island for this species consists of:

- all freshwater wetland communities listed in Table 3
- all saline communities listed in Table 3.

Information Sources:

DCCEEW (2022) *National Recovery Plan for the Australasian Bittern* (Botaurus poiciloptilus)

TSSC (2019) Conservation Advice - Botaurus poiciloptilus - Australasian Bittern

SPRAT Profile

Blue-winged Parrot

Scientific Name: *Neophema chrysostoma*

EPBC Act Status: Vulnerable

Summary

There are currently an estimated 10,000 (range 7,500–15,000) mature Blue-winged Parrots in the wild with a declining trend.

Blue-winged Parrots breed on mainland Australia and Tasmania. A partial migrant, variable numbers of Tasmanian breeding birds migrate across Bass Strait to mainland Australia in winter.

Although little is known about the migration pathways across Bass Strait, it is possible that birds could stop over on King Island, including roosting and foraging. Breeding may also occur on King Island.

Habitat

Blue-winged Parrots tend to favour grasslands and grassy woodlands for foraging, while in the breeding season (spring and summer), birds occupy eucalypt forests and woodlands where they nest in tree hollows.

Key habitat on King Island for this species consists of:

- Eucalypt woodland - King Island Eucalypt woodland (DKW)
- Eucalyptus ovata forest and woodland (DOV)
- Coastal grassland and herbfield (GHC)
- Coastal scrubs and heathlands listed in Table 3
- Freshwater wetlands listed in Table 3
- Saline sedgeland and herbland communities listed in Table 3
- Brookers gum forest – Wet *Eucalyptus brookeriana* forest (WBR)
- Blue gum forest - *Eucalyptus globulus* King Island forest (WGK)

Information Sources:

DCCEEW (2023) *Conservation Advice for* Neophema chrysostoma *(blue-winged parrot)*

SPRAT Profile

Green and Golden Frog

Scientific Name: *Litoria raniformis*

EPBC Act Status: Vulnerable

Summary

The Green and Golden Frog is distributed across south-eastern Australia. The significant impact guidelines and recovery plan for the species state that any viable population is an important population. The significant impact guidelines (DEWHA 2009) states that a significant impact is either:

- habitat degradation in an area supporting an important population; or
- isolation and fragmentation of populations

The King Island population of the Green and Golden Frog is considered an important population as it has been isolated on King Island since the last ice age 12,000 years ago and thus is highly likely to display a high degree of genetic distinctiveness, making it a population necessary for maintaining genetic diversity.

Habitat

The Green and Golden Frog is usually found among vegetation within or at the edges of permanent water such as slow flowing streams, swamps, lagoons and lakes. In disturbed areas it also commonly occurs in artificial waterbodies such as farm dams, irrigation channels, irrigated rice crops and disused quarries, particularly where natural habitat is no longer available.

Key habitat on King Island for this species consists of:

- all freshwater wetland communities listed in Table 3

Information Sources:

DCCEEW (2024) *Conservation Advice for* Litoria raniformis *(southern bell frog)*

Clemann & Gillespie (2012) *National Recovery Plan for the Southern Bell Frog* Litoria raniformis

DEWHA (2009) *EPBC Act Policy Statement 3.14: Significant impact guidelines for the vulnerable growling grass frog*

SPRAT Profile

Scrambling Ground-fern

Scientific Name: *Hiya distans*

EPBC Act Status: Endangered

Summary

The Scrambling Ground-fern is a terrestrial fern that occurs in Northwest Tasmania and New Zealand. There are only around ten known *Hypolepis distans* subpopulations in Tasmania, with the total number of mature individuals estimated to be in the order of 500–1,000.

It is only known from approximately 8 sites on King Island.

Habitat

On King Island, the species typically grows under *Melaleuca squarrosa/Leptospermum scoparium* scrub or wet eucalypt or mixed forest co-dominated by *Eucalyptus brookeriana* and *Acacia melanoxylon*.

The species typically occurs on soils high in organic matter with moderate to poor drainage.

On King Island the species is known to or likely to occur in:

- *Leptospermum lanigerum - Melaleuca squarrosa* swamp forest (NLM)
- Paperbark forest - *Melaleuca ericifolia* swamp forest (NME)
- Brookers gum forest – Wet *Eucalyptus brookeriana* forest (WBR)

It may also occur in

- Scrubs and heathlands including: *Leptospermum lanigerum* scrub (SLL), *Leptospermum scoparium* heathland and scrub (SLS), and *Melaleuca squarrosa scrub* (SMR), and Broad-leaf scrub (SBR)
- Scrub complex on King Island (SSK)
- Blackwood forest - *Acacia melanoxylon* swamp forest (NAF)

Information Sources:

DPIPWE (2012) *Listing Statement for* Hypolepis distans *(scrambling groundfern).*

TSSC (2001) *Commonwealth Listing Advice on* Hypolepis distans *(Scrambling Ground-fern)*

DPIPWE (2011) *Flora Recovery Plan: Threatened Tasmanian Ferns*

SPRAT Profile

Leafy Greenhood

Scientific Name: *Pterostylis cucullate*

EPBC Act Status: Vulnerable

Summary

The Leafy Greenhood is a terrestrial orchid known from about 110 populations from South Australia, Victoria and Tasmania (with 2 known populations on King Island). There are an estimated 50 000 plants.

It is dormant during the drier summer months, then dormancy is broken in response to cooler conditions in concert with autumn/winter rains when leaves emerge and grow throughout the winter and early spring.

The King Island population of the Leafy Greenhood is considered an important population as it has been isolated on King Island since the last ice age 12,000 years ago and thus is highly likely to display a high degree of genetic distinctiveness, making it a population necessary for maintaining genetic diversity.

Habitat

In Tasmania, the species typically grows at the interface between coastal tussock grasslands and scrub.

On King Island the species is likely to occur in:

- Coastal scrubs and heathlands listed in Table 3
- Scrubs and heathlands listed in Table 3

Information Sources:

TSSC (2016) *Conservation Advice* Pterostylis cucullata *leafy greenhood*

Duncan, M. (2010) *National Recovery Plan for the Leafy Greenhood* Pterostylis cucullata

NRE Tas (2024) *Leafy greenhood* (Pterostylis cucullata subsp. cucullata)*: Species Management Profile for Tasmania's Threatened Species Link*

SPRAT Profile

Swamp Fireweed, Smooth-fruited Groundsel

Scientific Name: *Senecio psilocarpus*

EPBC Act Status: Vulnerable

Summary

Swamp Fireweed is a semi-aquatic perennial herb, found in Victoria, the south-eastern corner of South Australia as well as Tasmania.

In Tasmania the total population is likely to number fewer than 250 plants and occupy less than one ha in total, placing the species at risk from chance events, the risk exacerbated as plants may not be seen or only persist in low numbers in between disturbance events.

The King Island population of Swamp Fireweed is considered an important population as it has been isolated on King Island since the last ice age 12,000 years ago and thus is highly likely to display a high degree of genetic distinctiveness, making it a population necessary for maintaining genetic diversity.

Habitat

In Tasmania *Senecio psilocarpus* is known from six widely scattered sites in the northern half of the State, including King and Flinders Islands. It occurs in swampy habitats including broad valley floors associated with rivers, edges of farm dams amongst low-lying grazing/cropping ground, herb-rich native grassland in a broad swale between stable sand dunes, adjacent to wetlands in native grassland, herbaceous marshland and low-lying lagoon systems.

On King Island the species is likely to occur in:

- Coastal grassland and herbfield (GHC)
- Coastal scrubs and heathlands listed in Table 3.
- Saltmarsh communities and other saline wetlands listed in Table 3.
- Freshwater wetlands listed in Table 3

Information Sources:

DEWHA (2008) Conservation Advice for Senecio psilocarpus (Swamp Fireweed)

NRE Tas (2024) *Swamp fireweed* (Senecio psilocarpus)*: Species Management Profile for Tasmania's Threatened Species Link*

SPRAT Profile

Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (*Eucalyptus ovata / E. brookeriana*)

EPBC Act Status: Critically Endangered

Summary

Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (*Eucalyptus ovata / E. brookeriana*) is a type of native eucalypt forest to woodland present only in Tasmania. It has a crown cover of at least 5% and a minimum height of 5 metres for the tree canopy, dominated by Black Gum (*Eucalyptus ovata*) or Brookers Gum (*Eucalyptus brookeriana*) trees, over an understorey of mostly native plants.

Occurrence

On King Island Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (*Eucalyptus ovata / E. brookeriana*) corresponds with the following TASVEG vegetation communities:

- DOV – *Eucalyptus ovata* forest and woodland;
- WBR – *Eucalyptus brookeriana* wet forest.

It also may occur within:

- DKW – King Island eucalypt woodland;
- WGK – *Eucalyptus globulus* King Island forest

The conservation advice (DOE 2019) provides more information on how to identify the ecological community and where it occurs.

The guide for farmers and other land managers (DAWE 2020) describes how to identify good quality patches of the community.

Information Sources:

DoEE (2019) *Approved Conservation Advice (incorporating listing advice) - Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)*

DAWE (2020) *Tasmanian Black Gum and Brookers Gum Forests and Woodlands: A Nationally Significant Ecological Community — A guide for farmers and other land managers*

SPRAT Profile

King Island Scrub Complex

EPBC Act Status: Endangered

Summary

King Island scrub complex is limited to King Island and its offshore islands, Tasmania, and primarily occurs in the north-east, central and south-east coast, and centre of the island, with significant occurrences also in the far south-west of the island.

It typically occurs on flats or undulating plains. Soils vary between loamy sand (typically on undulating plains, with high wind erosion potential) to sandy peat (typically on flatter plains, with high waterlogging potential).

It is characterised into three structural and compositional forms, sedgeland, heathland and scrub, reflecting site attributes (e.g. abiotic factors such as rainfall and soils) and disturbance history (e.g. fire).

A full description of the ecological community, including key diagnostic characteristics is contained in the Conservation Advice.

Occurrence

King Island scrub complex is closely related to the TASVEG unit:

- Scrub complex on King Island (SSK)

In order to be protected as a MNES, occurrences of the ecological community must meet both key diagnostic characteristics and the minimum condition threshold described in the conservation advice. Patches of the ecological community must be at least 5 m in width and 0.1 ha (1000 m^2) in total area, with less than 50% cover of exotic species in the ground layer (on average, across the patch).

Information Sources:

DCCEEW (2024) *Approved Conservation Advice for King Island scrub complex*

SPRAT Profile