

Wildlife of Native Grasslands

on Victoria's Northern Plains

Native grasslands of Victoria's Northern Plains support unique yet highly endangered and severely fragmented communities of plants and animals. Over the past ~180 years, more than 99% of grasslands have been removed or substantially altered for agriculture. As such, the Northern Plains Grassland community and many species dependent on this habitat type have declined significantly and are listed as nationally threatened. Iconic wildlife such as the Plains-wanderer, Eastern Hooded Scaly-foot and Fat-tailed Dunnart are restricted to native grasslands, not to mention an array of other highly specialised grassland animals that contribute to the uniqueness of this ecosystem.

Recognition of the significance of grassland ecosystems and their attendant faunal communities has attracted considerable attention in recent decades, and though patches of grasslands remain disjunct and under threat, many key grassland remnants have been secured and set aside for conservation management and restoration. Terrick Terrick National Park near Mitiamo is arguably the 'jewel in the crown' of the Northern Plains grasslands, yet there are many other parcels of both public and private land dotted across the landscape that support significant grassland flora and fauna values. This guide will help the reader to identify most of the birds, mammals, reptiles and frogs that occur in and around Northern Plains Grasslands. Most species featured are grassland-dependent in that they live entirely within the grassland ecosystem. Some other species that regularly occupy grasslands for parts of their life cycle are also included, even though they may be reliant on other non-grassland habitat features, such as shrubs and trees, for shelter and nesting.

Northern Plains Grasslands are a form of naturally treeless native temperate grassland distinct from other similar plains grassland communities that occur in different parts of south-eastern Australia. Bordering semi-arid ecosystems further inland, Northern Plains Grasslands are significantly drier than other grassland communities and they occur primarily on characteristic red-brown alluvial heavy clay soils. The plant communities that make up Northern Plains Grasslands are floristically rich and may contain up to 30 native plant species per 100m². Perennial native grasses, such as Wallaby-grasses, Spear-grasses and Spider Grass, form the primary vegetation cover, interspersed with perennial herbs, forbs and in some cases low chenopod saltbushes. For wildlife, the structure of grassland vegetation appears far more important than plant species composition, with spaces between tussocks recognised as a critical habitat feature for much of the grassland fauna, which requires ongoing active management.

Species conservation status (Victoria)*

Critically Endangered: At extremely high risk of extinction in the wild.

Endangered: At very high risk of extinction in the wild.

Vulnerable: At high risk of extinction in the wild.

Least Concern: Does not currently qualify for threatened status, however several species in this brochure have shown a demonstrable decline and/or occur rarely in Victoria.

*Assessed against criteria under the International Union for Conservation of Nature Red List of Threatened Species

Credits

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Photographs: Chris Tzaros (CT), David Parker (DP), Mark Antos (MA), Mark Sanders (MS), Bruce Thomson (BT)

Cover Photographs: Plains-wanderer, female (CT), Fat-tailed Dunnart (CT) and Hooded Scaly-foot (CT)

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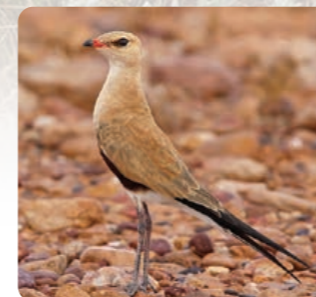
on Victoria's Northern Plains



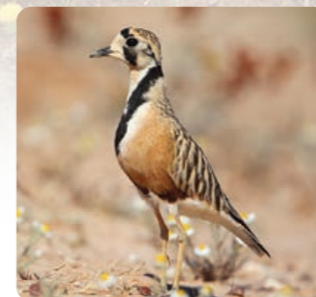
Fat-tailed Dunnart
Sminthopsis crassicaudata (CT)
Conservation status: Least Concern



Eastern Grey Kangaroo
Macropus giganteus (CT)
Conservation status: Least Concern



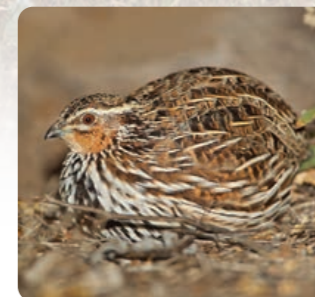
Australian Pratincole
Siltia isabella (CT)
Conservation status: Least Concern



Inland Dotterel
Peltohyas australis (CT)
Conservation status: Endangered



Brown Quail
Coturnix ypsilophora (CT)
Conservation status: Least Concern



Stubble Quail
Coturnix pectoralis (CT)
Conservation status: Least Concern



Brown Falcon
Falco berigora (CT)
Conservation status: Least Concern



Black Falcon
Falco subniger (CT)
Conservation status: Critically Endangered



Red Kangaroo
Osphranter rufus (CT)
Conservation status: Least Concern



Gould's Wattlebat
Chalinolobus gouldii (MS)
Conservation status: Least Concern



Banded Lapwing
Vanellus tricolor (CT)
Conservation status: Least Concern



Masked Lapwing
Vanellus miles (CT)
Conservation status: Least Concern



Little Button-quail
Turnix velox (DP)
Conservation status: Least Concern



Red-chested Button-quail
Turnix pyrrothorax (MA)
Conservation status: Endangered



Nankeen Kestrel
Falco cenchroides (CT)
Conservation status: Least Concern



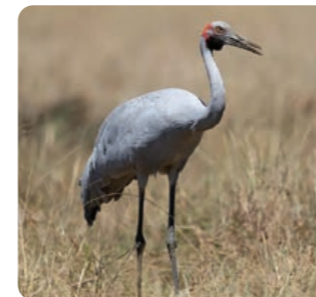
Black-shouldered Kite
Elanus axillaris (CT)
Conservation status: Least Concern



Lesser Long-eared Bat
Nyctophilus geoffroyi (BT)
Conservation status: Least Concern



Little Forest Bat
Vespardelus vulturnus (BT)
Conservation status: Least Concern



Brolga
Grus rubicunda (CT)
Conservation status: Endangered



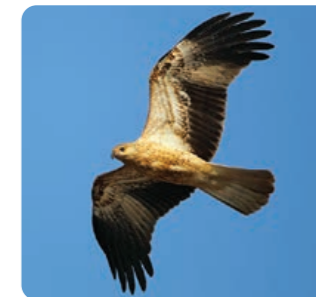
Galah
Eolophus roseicapilla (CT)
Conservation status: Least Concern



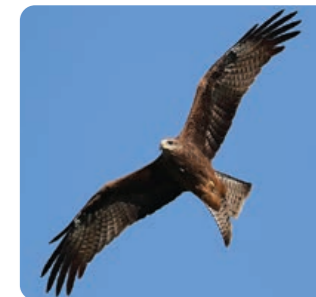
Plains-wanderer (female)
Pedionomus torquatus (CT)
Conservation status: Critically Endangered



Plains-wanderer (male)
Pedionomus torquatus (CT)
Conservation status: Critically Endangered



Whistling Kite
Haliastur sphenurus (CT)
Conservation status: Least Concern



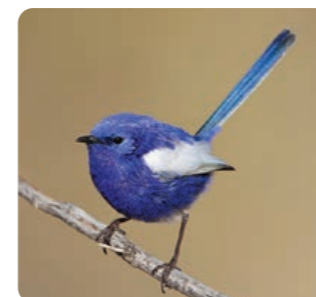
Black Kite
Milvus migrans (CT)
Conservation status: Least Concern



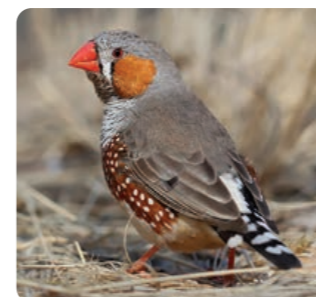
Southern Free-tailed Bat
Ozimops planiceps (BT)
Conservation status: Least Concern



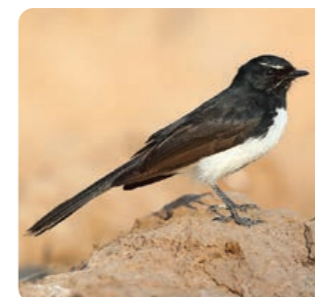
White-striped Free-tailed Bat
Austronomus australis (BT)
Conservation status: Least Concern



White-winged Fairy-wren
Malurus leucopterus (CT)
Conservation status: Least Concern



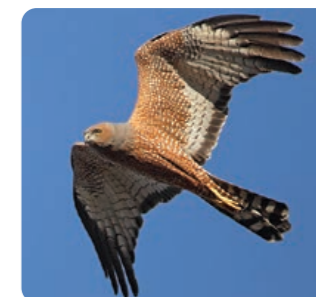
Zebra Finch
Taeniopygia guttata (CT)
Conservation status: Least Concern



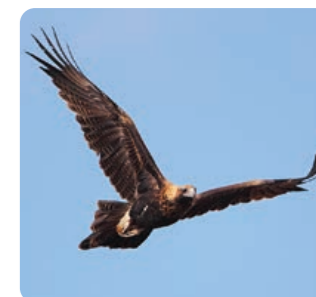
Willie Wagtail
Rhipidura leucophrys (CT)
Conservation status: Least Concern



Yellow-rumped Thornbill
Acanthiza chrysorrhoa (CT)
Conservation status: Least Concern



Spotted Harrier
Circus assimilis (CT)
Conservation status: Least Concern



Wedge-tailed Eagle
Aquila audax (CT)
Conservation status: Least Concern



Eastern Barn Owl
Tyto delicatula (CT)
Conservation status: Least Concern



Australian (Richard's) Pipit
Anthus australis (CT)
Conservation status: Least Concern



Stumpy-tailed Lizard (Shingleback)
Tiliqua rugosa (CT)
Conservation status: Least Concern



Common Blue-tongued Lizard
Tiliqua scincoides (CT)
Conservation status: Least Concern



Marbled Gecko
Christinus marmoratus (CT)
Conservation status: Least Concern



Common (Eastern) Brown Snake
Pseudonaja textilis (CT)
Conservation status: Least Concern



Brown Songlark
Megalurus cruralis (CT)
Conservation status: Least Concern



Horsfield's (Singing) Bushlark
Mirafra javanica (CT)
Conservation status: Least Concern



Boulenger's Skink
Morethia boulengeri (CT)
Conservation status: Least Concern



Eastern Hooded Scaly-foot
Pygopus schraderi (CT)
Conservation status: Critically Endangered



Curl Snake
Suta suta (CT)
Conservation status: Least Concern



Peron's Tree Frog
Litoria peronii (CT)
Conservation status: Least Concern



Black-faced Woodswallow
Artamus cinereus (CT)
Conservation status: Least Concern



Crested Pigeon
Ocyphaps lophotes (CT)
Conservation status: Least Concern



Olive Legless Lizard
Delma inornata (CT)
Conservation status: Least Concern



Striped Legless Lizard
Delma impar (CT)
Conservation status: Endangered



Spotted Marsh Frog
Limnodynastes tasmaniensis (CT)
Conservation status: Least Concern



Common Spadefoot Toad
Neobatrachus sudelli (CT)
Conservation status: Least Concern



Crimson Chat
Epthianura tricolor (CT)
Conservation status: Least Concern



Orange Chat
Epthianura aurifrons (CT)
Conservation status: Least Concern



Eastern Bearded Dragon
Pogona barbata (CT)
Conservation status: Vulnerable



Tessellated Gecko
Diplodactylus tessellatus (MA)
Conservation status: Least Concern



Common Froglet
Crinia signifera (CT)
Conservation status: Least Concern



Plains Froglet
Crinia parinsignifera (CT)
Conservation status: Least Concern

Iconic fauna

More than any other regional type of native grassland in Victoria, Northern Plains Grasslands continue to support a relatively intact assemblage of grassland-dependent fauna. The following iconic species are regularly encountered in pockets of habitat across the Northern Plains, especially those large in size, structurally intact and relatively well-connected. All are prone to ongoing habitat disturbance and require specific habitat management approaches.

Plains-wanderer

In Victoria, the charismatic Plains-wanderer is found almost exclusively in Northern Plains Grasslands and has become a 'flagship' species for grassland conservation. In a family of its own without any close relatives, the Plains-wanderer is extremely unique. It is also one of the most seriously threatened birds in Australia, with a population of between 250 and 1000 individuals. Northern Plains Grasslands, especially those on the Patho and Lower Avoca Plains, provide critical habitat for this species. Low, sparse grasslands with patches of bare open ground are strongly favoured, allowing these birds to freely move around and forage, and be able to stand upright and look over the grass to detect ground predators. The best sites have lichen crust on the soil and comprise a variety of wallaby-grasses, spear-grasses, salt bush, daisy and pea.



Eastern Hooded Scaly-foot

Ranging across much of inland Queensland and New South Wales, the Eastern Hooded Scaly-foot occurs at the edge of its range in northern Victoria, and is known from just a few locations, including some high-quality grasslands on the Northern Plains. This legless lizard



has a variable colour pattern but its overall reddish-brown body, intricately patterned back and tail, and dark markings around its head afford effective camouflage amidst the tussocks and lichen encrusted red-brown soil that it inhabits. Primarily nocturnal, this species is mostly encountered whilst spotlighting on warm nights where it actively forages for spiders and other invertebrates. Preferring habitat much like that of the Plains-wanderer, they are typically located on small patches of bare ground amongst the grassland, often close to spider burrows, soil crevices and raised ant nests where they shelter.

Fat-tailed Dunnart

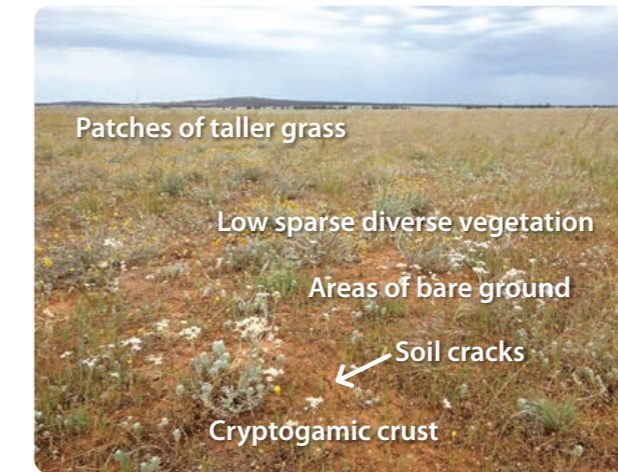
With its large ears and eyes and stubby tail, the endearing Fat-tailed Dunnart is one of the few native marsupials to occur on Northern Plains Grasslands. In other parts of their range, this tiny nocturnal species shelters by day in grass nests beneath logs or rocks, but these resources are scarce on the Northern Plains so they utilise holes and cracks in the soil and disused burrows of spiders. After dark, they emerge to forage on ground-dwelling invertebrates such as beetles, spiders and scorpions. Fat stored in the animal's tail provides a short-term energy supply to help them survive periods of food shortage. They are most active in warmer weather, corresponding with peak invertebrate activity. On cold nights, they retreat to shelter, often communally, at times entering starvation-induced torpor to conserve energy.



Threats to grassland fauna

Intensive irrigated and dryland agriculture has destroyed an estimated 99.7% of the habitat of the Northern Plains Grassland Community. What remains has been significantly altered and most grassland remnants occur as small, isolated patches. Though botanically significant, many remnants provide insufficient area and habitat resources to support ecologically viable populations of grassland fauna. Larger grassland remnants are the most important for fauna and many of these are found on private land and are still susceptible to agricultural changes, especially cultivation.

Apart from the loss of their habitat, populations of grassland fauna have become highly fragmented and suffer from genetic isolation. Many species are incapable of traversing the modified landscape and have become 'locked' into the sites where they occur. Even within the largest and most intact remnants, many of the highly specialised species continue to suffer the effects of isolation and lack of habitat connectivity, not to mention other threats such as over-grazing, under-grazing, weed invasion, predation, slashing, inappropriate burning, trampling of sites at inappropriate times of the year, and tree planting within native grassland remnants.



Patches of taller grass

Low sparse diverse vegetation

Areas of bare ground

Soil cracks

Cryptogamic crust

Terricks grassland featuring key habitat attributes

Conserving grassland fauna

Over the past ~30 years, a collaborative partnership involving State and Commonwealth government agencies, Trust for Nature and local landholders has been working to protect, restore and improve the extent and condition of native grasslands on the Northern Plains. Initiating this program in the late 1990s was the acquisition of the 'Davies' property – a 1277 ha former sheep-grazing property in the heart of the Patho Plains. Following the purchase of this high-quality grassland by Trust for Nature, the land was later transferred to the Crown and now forms the grassland section of Terrick Terrick National Park. Since then, a significant number of other properties supporting native grassland have been purchased and added to the public estate with government support. These additions have resulted in Terrick Terrick National Park now covering over 3300 ha, and the establishment of the Bael Bael Grasslands Nature Conservation Reserve in 2011, which now covers over 3100 ha. Along the way, Trust for Nature has secured numerous other privately-owned sites under conservation covenant and also owns and manages over 4000 ha within their conservation reserves, establishing a significant private reserve network across the Northern Plains.

But extending the protected area network alone will not protect the grassland fauna of the Northern Plains. There is also the need for active management to restore and maintain habitat quality and diversity in order to meet the specific habitat requirements of the suite of grassland-dependent fauna, maximising the niches and opportunities available for a range of species. Ongoing research and monitoring is critical in informing appropriate management approaches and interventions. The Northern Plains Grassland Fauna Survey Project, a Parks Victoria citizen science project focussing on the Terrick Terrick and Bael Bael grasslands, is monitoring the distribution and abundance of key grassland fauna, as well as the impact of management actions such as ecological grazing and burning regimes. Knowledge captured by this monitoring triggers the required sheep grazing regimes to maintain appropriate height and density of vegetation that is critical for highly specialised grassland fauna.

How to help grassland wildlife and their habitat

Protecting remnant native grasslands on the Northern Plains is an ongoing conservation priority. A growing number of landowners/farmers in the region have placed Trust for Nature conservation covenants over native grassland paddocks that they own, to ensure their ongoing protection.

Community involvement in grassland conservation, research and monitoring are key components to effective conservation of the ecosystem. The Northern Plains Conservation Management Network, in conjunction with Trust for Nature, Parks Victoria and other organisations, works with farmers to raise awareness of grassland conservation using the Plains-wanderer as a focal species. On farms where suitable habitat has been identified, in partnership with the Department of Environment, Land, Water and Planning, songmeters are being set up to record any calls that the birds may make to confirm their presence. Fencing is offered to landholders with Plains-wanderer habitat to help them improve native grassland management on their properties through actions such as appropriate grazing regimes.

For more information on grassland conservation visit:
<https://trustfornature.org.au/campaign/plains-wanderers/>

or contact

trustfornature.org.au
Ph. (03) 8631 5888

