

The Ecological Values of the Lawson Grasslands



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Overview of ecological values

What?

- This is an overview of all the threatened fauna, flora and ecological communities and declining species recorded in or near Lawson, ACT
- The development proposal site at Lawson has extensive grassland and patches of woodland

Where?

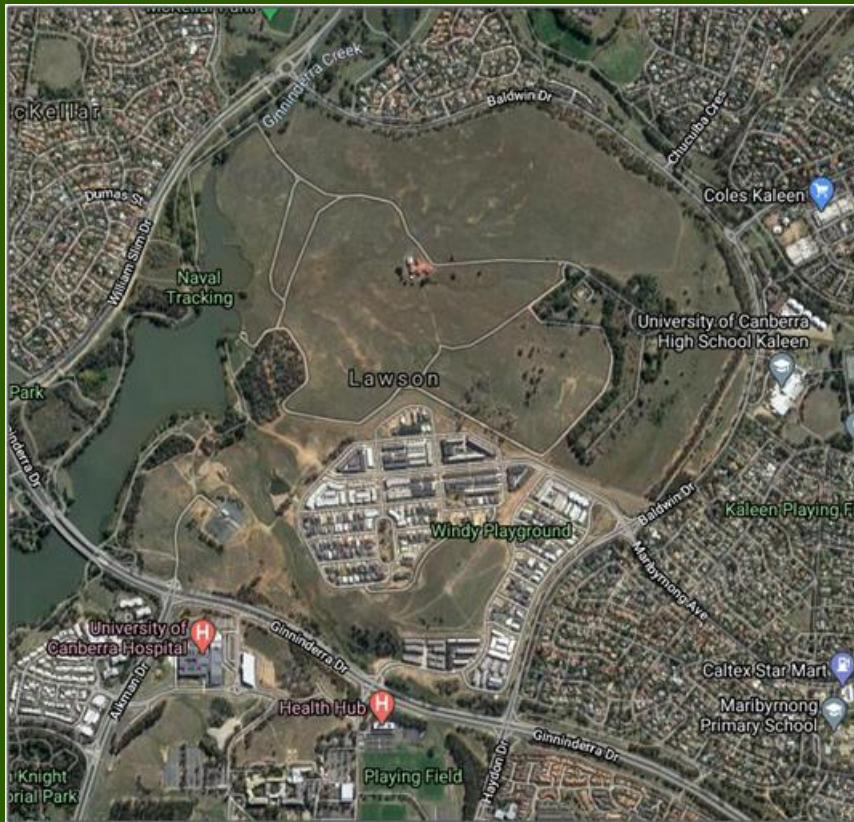
- Includes information from:
 - Former Belconnen Naval Station;
 - Defence Housing Australia land; and
 - The immediately adjacent established suburbs



Note: all references to listings in this overview give the highest level listing only

Why?

- Part of this area is proposed to be developed as a suburb
- Should it proceed, the development will have a major impact on ecological values



The image at left shows the suburb of Lawson with the areas of grassland to its north. The drawing at right shows the initial development plan as proposed by Defence Housing Australia. This information was formerly available on the DHA website.

Critically endangered ecological communities (CEECs)

Natural Temperate Grassland (NTG)

- Formerly occupied 0.5 million ha of SE NSW
- Now only c. 1% is formally protected in conservation reserves
- Is habitat for threatened fauna and flora and declining species
- Has been, and remains vulnerable to land-clearing for agricultural, infrastructure and, critically, urban development



Natural Temperate Grassland (NTG)

Why is Lawson important?

- Lawson has large areas of NTG
- The proposed development will affect high-quality NTG



Critically endangered ecological communities (CEECs)

Box-Gum Grassy Woodland

- Formerly occupied extensive areas of SE Australia
- Very little of this community remains
- Has been, and continues to be threatened by land-clearing for agricultural, infrastructure and, as with NTG, and equally critically, urban development



Box-Gum Grassy Woodland

Why is Lawson important?

- Part of Lawson has Box-Gum Grassy Woodland, including in its derived grassland form
- The proposal will impact Box-Gum Woodland because under the most recent plan, there will be inadequate buffering
- Lawson's Woodlands have large hollow-bearing trees:
 - important for hollow-using birds and mammals





Some rare or threatened communities, fauna and flora of the Box-Gum Grassy Woodland CEEC



Golden Sun Moth



Fauna Values: Invertebrates

Golden Sun Moth

- Vulnerable
- A day-flying moth of NTG, formerly widespread
- Unusual life history:
 - Long larval life-span underground
 - Just a few days spent as a non-feeding adult
 - A dietary specialist on the roots of wallaby-grasses and spear-grasses
 - Very extensive range-contraction

Why is Lawson important?

- An iconic, flagship species of SE Australian NTG
- An indicator species of undisturbed grassland
- The site currently contains extensive interconnected suitable habitat, with one of the larger remaining populations in the ACT
- Lawson has a maximum of 500 individuals counted over an area of about 120 ha

Other Invertebrates

Perunga Grasshopper

- Vulnerable – ACT
- A restricted grassland specialist
- Recorded at Lawson



Canberra Raspy Cricket

- Nominated as endangered – ACT
- A restricted grassland specialist
- Recorded at Lawson



Others:

- Key's Matchstick
 - Endangered - NSW
 - A restricted grassland specialist
 - Highly likely to occur



Reptiles

Striped Legless Lizard

- Vulnerable
- Occurs at Lawson, with recent records
- Extensive suitable habitat occurs at Lawson
- Development will cut connectivity between populations and suitable habitat



Canberra Grassland Earless Dragon

- A newly recognised species
- Recently listed as critically endangered
- Not recorded at Lawson, though extensive habitat exists
- Lawson has been flagged as a potential release site for the establishment of a new population

Birds

Gang-gang Cockatoo

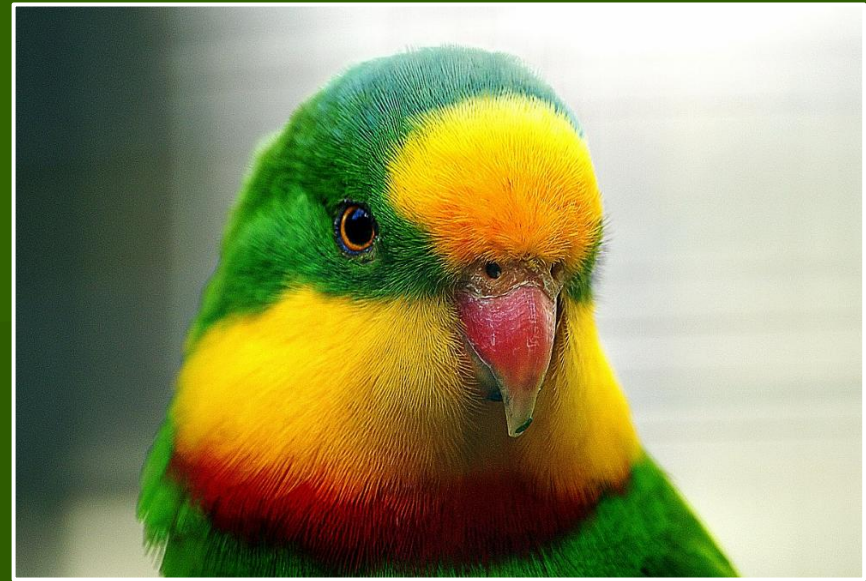
- Endangered
- An iconic ACT breeding resident
- Suitable foraging and breeding habitat occurs
- Recorded at Lawson and nearby suburbs



Birds

Superb Parrot

- Vulnerable
- Woodland dependent
- Has recently extended its range to Canberra
- Records from Lawson and nearby suburbs
- Suitable hollows occur



Latham's Snipe

- A migratory species
- Breeds in the N Hemisphere
- A non-breeding visitor
- Potential habitat exists
- Records from Lawson and nearby suburbs



Birds

Other threatened birds

- Little Eagle - vulnerable – ACT
 - A small population remains in the ACT
 - Suitable foraging habitat exists at Lawson
 - Recorded at Lawson and in nearby suburbs
- Scarlet Robin and Flame Robin – vulnerable – ACT
 - Iconic insectivorous woodland breeding residents
 - Suitable foraging habitat exists at Lawson
 - Both species have been recorded at Lawson and in nearby suburbs



Birds

Other threatened birds

- White-winged Triller
 - Vulnerable ACT
 - A migratory species
 - A small population breeds in the ACT
 - Suitable foraging and breeding habitat exists at Lawson
 - Recorded at Lawson and in nearby suburbs
- Dusky Woodswallow – vulnerable NSW
 - A nomadic insectivore; breeds in the ACT
 - Suitable foraging habitat exists at Lawson
 - Recorded at Lawson and in nearby suburbs
- White-fronted Chat – vulnerable NSW
 - A nomadic terrestrial honeyeater, a regular visitor
 - Suitable foraging habitat exists at Lawson
 - Recorded in nearby suburbs



Birds

- Many woodland and grassland species have been recorded, either at Lawson, or in surrounding suburbs. Some are identified as declining, or otherwise rarely or uncommonly recorded in the region:

Brown Quail

Stubble Quail

Pacific Swift

Pallid Cuckoo

Fan-tailed Cuckoo

Brush Cuckoo

Southern Whiteface

Western Gerygone

White-throated Gerygone

Scarlet Honeyeater

Fuscous Honeyeater

Rufous Whistler

Golden Whistler

Restless Flycatcher



Leaden Flycatcher

Scarlet Robin

Red-capped Robin

Rose Robin

Flame Robin

Australasian Pipit

Mistletoebird

Red-browed Finch

Double-barred Finch

Threatened flora

Ginninderra Peppercress

- Endangered
- A rosette-forming perennial forb with small, greenish flowers



Why is Lawson important?

- A highly significant species
 - this is the site of its first discovery
 - Lawson is the species' "type locality"
- Still only four known populations
 - All are found within the ACT
- Highly likely to be overlooked in surveys
 - It's possible that plants may occur in the development envelope, or as a dormant seed-store

Note: The photo is of the related Aromatic Peppercress, also endangered

Threatened flora

Small Purple Pea

- Endangered
- Limited to a few small populations in NSW and ACT
- A new population was found at nearby Lake Ginninderra in 2020
- Likely to occur at Lawson



Hoary Sunray

- Endangered
- Widespread, but sensitive to disturbance
- Occurs on Reservoir Hill in the nearby suburb



Declining flora

- The grassland and grassy woodland groundlayers at Lawson host a diversity of flora species
- Some off these are termed "decliners"
 - they are now rare due to the same threats that operate on the CEECs that they occur in

- Declining flora species include:

Common Fringe-lily
Nodding Chocolate-lily
Common Bulbine-lily
Blue Devil
Emu-foot
Heathy Bush-pea

Early Nancy
Creamy Candles
Lemon Beautyheads
Scrambled Eggs
Austral Sunray





Photo credits

All photos by Rainer Rehwinkel, with the exception of the following:

P.2 Blue Devil: Maryke Booth

P.3 Google Maps

P.3 Defence Housing website:

<https://www.dha.gov.au/development/residential/lawson-act>

P.9 Golden Sun Moth: Annet Richter

P.9 Golden Sun Moth: Lesley Peden

P.11 Perunga Grasshopper: Geoff Robertson

P.12 Striped Legless Lizard: Will Osborne

P.13 Gang-gang Cockatoo: Creative Commons

P.14 Superb Parrot: Creative Commons

P.14 Latham's Snipe: Creative Commons

P.15 Scarlet Robin: Creative Commons – Lip Kee

P.16 Dusky Woodswallow : Creative Commons

P.17 Flame Robin : Creative Commons

P.18 Aromatic Peppercreess: Stuart Cohen