

LATHAM DISTRICT PARK, ACT

FLORA AND FAUNA SURVEY
SUMMER 1992/1993 UPDATE

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Latham District Park was visited six times during November and December 1992 and January 1993 to provide a summer update of the flora and fauna survey carried out from May to July 1992 (Rowell 1992).

FLORA

Note: It is recommended that the main native grassland areas in Latham District Park be managed in accordance with the guidelines developed by the Technical Services Unit of ACT Parks and Conservation Service (Woodruff & Florence 1992).

Main Grassland Area

Examination of this grassland area in the south-west corner of the park confirmed it to be dominated by Kangaroo Grass Themeda triandra, with a mixture of other native grasses and herbs typical of local grasslands, as well as a number of weed species.

A visit in late November showed that the least disturbed and weedy part of this area had recently been closely mown, reducing the number of identifiable spring-flowering species. Native species not seen in previous surveys but well-represented in summer 1992/93 include:

<u>Dichopogon fimbriatus</u>	Chocolate Lily
<u>Microtis parviflora</u>	(a small orchid)
<u>Danthonia carphoides</u>	Short Wallaby Grass

Common weeds in this area include:

<u>Tragopogon porrifolius</u>	Salsify
<u>Avena fatua</u>	Wild Oats
<u>Echium vulgare</u>	Paterson's Curse
<u>Trifolium arvense</u>	Haresfoot Clover
<u>Centaurium erythraea</u>	Pink Stars

Garden prunings and heaps of weeds continue to be dumped on the edge of this grassland nearest to the houses, exacerbating the weed problem. A clump of irises has taken root, among other garden escapes.

This area contains habitat which appears to be suitable for the rare wingless grasshopper Keyacris scurra, but searches failed to find any here or in other parts of the park. This insect requires moderately dense stands of Themeda, apparently for shelter, and adequate amounts of Yellow Buttons Chrysocephalum (Helichrysum) apiculatum to feed on (Dr K Key, pers. comm.) Such habitat can be destroyed by frequent or too-close mowing of the Themeda. The grasses may later recover, but the grasshopper is unlikely to recolonise, as suitable sites are now widely separated, due to widespread loss of Themeda in this district as a result of grazing. The haphazard nature of management of this area in the past is likely to have eliminated any population of these grasshoppers which may have originally been present.

The endangered day-flying moth Synemon plana is associated with low Wallaby Grass (especially Danthonia carphoides) grasslands, and is found nearby in Belconnen. Danthonia carphoides occurs here and elsewhere in the park, but does not form the kind of low stands required by the moth.

Other Grassland Areas

The grassed area between the flying fox and the boardwalk above the creek contains a good mixture of native species, dominated by Themeda. As well as many of the species seen in the area described above, there were:

<u>Danthonia pilosa</u>	Smooth-flowered Wallaby Grass
<u>Senecio quadridentatus</u>	Cotton Fireweed
<u>Gnaphalium involucreatum</u>	Native Cudweed
<u>Pultenaea subspicata</u>	Bush Pea
<u>Glycine clandestina</u>	Twining Glycine
<u>Plantago varia</u>	Native Plantain
<u>Leptorhynchus squamatus</u>	Hairy Buttons
<u>Hibbertia calycina</u>	Lesser Guinea Flower

A number of the above species are more typical of the understorey of forest and woodland than of native grasslands, suggesting that this area may be secondary grassland produced by clearing and grazing.

The patch of native grassland above the western artificial swamp and below Herron Crescent contains many of the species seen in the main western grassland, as well as:

<u>Bothriochloa macra</u>	Redleg Grass
<u>Danthonia caespitosa</u>	Ringed Wallaby Grass
<u>Goodenia pinnatifida</u>	Scrambled Eggs
<u>Psoralea adscendens</u>	Mountain Psoralea
<u>Hypericum gramineum</u>	Small St John's Wort
<u>Desmodium varians</u>	Slender Tick Trefoil

Mountain Psoralea is also a plant more usually found in forest situations. It was found elsewhere in the park as well.

Weeds/introduced plant species

Grasses and clovers which have apparently been planted in the past in association with paths and landscaping are the most frequent introduced species in the park, but many pasture weeds are present as well. These may continue to encroach on the native grassland remnants, and management techniques that discourage this should be used where possible. Mowing and burning regimes as recommended by Woodruff & Florence (1992) are designed to encourage the persistence of native species while discouraging some of the annual weeds. Care should also be taken to prevent unnecessary soil disturbance in the native grass areas, or the run-on of fertilizers or herbicides.

The main introduced species encroaching on the grasslands include:

<u>Festuca elatior</u>	Tall Fescue
<u>Phalaris aquatica</u>	Phalaris
<u>Holcus lanatus</u>	Yorkshire Fog
<u>Trifolium repens</u>	White Clover
<u>Trifolium arvense</u>	Haresfoot Clover
<u>Avena sp.</u>	Wild Oat
<u>Hypochoeris radicata</u>	Flatweed
<u>Tragopogon porrifolius</u>	Salsify
<u>Echium vulgare</u>	Paterson's Curse

There are two aggressive introduced grasses which could invade disturbed grasslands in the park and replace the native species. These are Eragrostis curvula African Love Grass, which is already present in the park and has become a serious weed of pastures north of Cooma, and Stipa neesiana Chilean Needle Grass, which has invaded many disturbed grassed areas in Canberra in the last 20

years. African Love Grass occurs near the boardwalk above the creek, and Chilean Needle Grass was found growing densely on a road verge on Southern Cross Drive just outside the park.

Artificial Swamp Areas

The Typha bed in the eastern swamp has grown larger, and will need to be controlled in the next couple of seasons, or it will fill the whole swamp area and eventually eliminate the open water. The unusually wet summer has ensured that the swamps have stayed full and relatively clean, but as noted in the previous report, both swamps would benefit by enlargement. The native water fern Azolla has colonised the eastern swamp.

The claw of a Yabbie Cherax destructor was seen in the drain leading to the western swamp, and dragonflies were seen over both swamps. Other faunal aspects of the swamps are discussed under the appropriate headings below.

FAUNA

Mammals

No further species of mammals were observed in the park. A member of a local park care group reported that Hydromys chrysoqaster Native Water Rat was also observed in the creek in 1991.

Birds

12 of the 23 bird species present in the winter survey were also observed in summer. These were generally species regarded as resident in the ACT.

A further 12 species were noted in this survey which were not present in winter. A number of these are principally summer visitors to the Canberra area, such as the Clamorous Reed Warbler, Noisy Friarbird and Fan-tailed Cuckoo. No active nests were found, but Noisy Friarbirds and European Goldfinches were seen feeding their young in the park in January.

Some of the species observed in winter but not summer were resident species for which there are few or no breeding places in the park, such as the Welcome Swallow,

and hole-nesters such as the Crimson Rosella, Red-rumped Parrot and Common Starling. Other species not observed in the summer survey were the Flame Robin and the Pied Currawong, most of which breed in the nearby ranges.

Few birds were observed in the willows along the creek. The White-faced Herons were usually seen around the water bodies, but in January one was seen apparently feeding on Yellow-winged Locusts on mown grass beside the cycle path.

Birds observed in Latham District Park, November 1992-January 1993.

White-faced Heron	<u>Ardea novaehollandiae</u>
Pacific Black Duck	<u>Anas superciliosa</u>
Australian Kestrel	<u>Falco cenchroides</u>
Galah	<u>Cacatua roseicapilla</u>
Eastern Rosella	<u>Platycercus eximius</u>
Fan-tailed Cuckoo	<u>Cuculus pyrrhophanus</u>
Kookaburra	<u>Dacelo gigas</u>
Richard's Pipit	<u>Anthus novaeseelandiae</u>
Black-faced Cuckoo-shrike	<u>Coracina novaehollandiae</u>
Blackbird	<u>Turdus merula</u>
Yellow-rumped Thornbill	<u>Acanthiza chrysorrhoa</u>
Buff-rumped Thornbill	<u>Acanthiza reguloides</u>
Little Thornbill	<u>Acanthiza nana</u>
White-browed Scrub-wren	<u>Sericornis frontalis</u>
Noisy Friarbird	<u>Philemon corniculatus</u>
Silvereye	<u>Zosterops lateralis</u>
Grey Fantail	<u>Rhipidura fuliginosa</u>
Clamorous Reed Warbler	<u>Acrocephalus stentoreus</u>
House Sparrow	<u>Passer domesticus</u>
European Goldfinch	<u>Carduelis carduelis</u>
Banded Finch	<u>Poephila bichenovii</u>
Magpie Lark	<u>Grallina cyanoleuca</u>
Australian Magpie	<u>Gymnorhina tibicen</u>
Australian Raven	<u>Corvus coronoides</u>

Reptiles

As predicted from the winter survey, the rocky outcrop near the boardwalk and sewer line proved to be good reptile habitat. This area supports a colony of Cunningham's Skink Egernia cunninghamii, a large (up to 430mm in length) gregarious diurnal species which typically occurs in groups among rocks. Up to 3 individuals of different sizes were observed at a time, basking on the rocks.

Mr Ross Bennett of the Wildlife Section reports that the ACT Parks and Conservation Service receives calls in most summers to remove Eastern Brown Snakes Pseudonaja textilis from residential properties adjacent to the park, and it is assumed that the snakes come from the park itself.

Frogs

Frogs were surveyed mainly by listening for calls around the water bodies in the park. The calls of 4 species were heard.

The Eastern Banjo Frog Limnodynastes dumerilii, the Common Froglet Ranidella signifera and the froglet Ranidella parinsignifera were heard in both artificial swamps. The Common Froglet was also heard at several locations along the creek.

In late December many late stage tadpoles were seen in large puddles on a dirt track above the flying fox. These were gone a month later (although due to the unusually wet summer, the water was still there), and a hand search under nearby litter and rocks revealed no frogs. The appearance of the tadpoles and the breeding location (ephemeral ponds) suggests that they were tadpoles of the Spotted Marsh Frog Limnodynastes tasmaniensis. This species was heard calling from a nearby section of the creek in January. No tadpoles were seen in either of the artificial swamps, and the number of adults calling was small - no more than one or two of each species being heard on any visit. As the creek provides permanent water nearby which could provide dry season refuge for frogs, more frog activity could have been expected in the swamps. The lack of it may be due to poor quality of the incoming suburban runoff water, or possibly predation of frog eggs by the large numbers of introduced fish in the swamps (see below).

Fish

The park waters were not sampled for fish in the current survey, but 2 introduced species were observed in the constructed swamp areas.

These are the Mosquitofish Gambusia affinis, a small species which is common in summer in the Molonglo/Murrumbidgee Rivers and the urban lake system, and the Oriental Weatherloach Misgurnus anguillicaudatus, which is a popular bottom-feeding 'cleaner fish' in aquaria.

A 1988 survey (Lintermans et al. 1990) which included this section of Ginninderra Creek (Lake Ginninderra to Macgregor) recorded only introduced species - the above two and the Goldfish Carassius auratus.

The Oriental Weatherloach was first observed in Ginninderra Creek in 1984, and the 1988 survey showed them to be present along 16 km of the creek. These fish are very hardy, being tolerant of a wide range of water temperatures, low oxygen concentrations, high turbidity and pesticide contamination. The feral population is considered to be well-established in Ginninderra Creek, and eradication is not considered feasible (Lintermans et al. 1990).