

Supplementary Material

Managing a breeding population of endangered Carnaby's Black-Cockatoo *Calyptorhynchus latirostris* on the edge of their range

Amanda R. Bourne^{A,B,}, Kahree Garnaut^{A,C}, Rick Dawson^D, Heather Beswick^A, Freda Blakeway^E, Sam Rycken^E, Robin Simkin^F, and Jarna Kendle^A*

^ANorthern Agricultural Catchment Council: Natural Resource Management (NACC NRM), 114 Sanford Street, Geraldton, WA 6530, Australia.

^BAustralian Wildlife Conservancy, 322 Hay Street, Subiaco East, WA 6008, Australia.

^CBio Diverse Solutions, Unit 7/40 South Coast Highway, Denmark, WA 6333, Australia.

^DAustralian Black Cockatoo Specialists, Waikiki, WA 6169, Australia.

^EBirdLife Australia, Peregrine House, 167 Perry Lakes Drive, Floreat, WA 6014, Australia.

^FGeraldton Regional Herbarium, 11 Allen Street, Wonthella, WA 6530, Australia.

*Correspondence to: Amanda R. Bourne Australian Wildlife Conservancy, PO Box 8070, Subiaco East, WA 6008, Australia Email: abourne.uct@gmail.com

Table S1: Full list of all plant species recorded at Murchison House Station during vegetation surveys conducted across eight quadrats in September 2021. The 'Number' column refers to the number of quadrats in which each species was recorded.

Common name	Latin name	Type	Status	Number
Jam	<i>Acacia acuminata</i>	native		1
Sandplain Wattle	<i>Acacia murrayana</i>	native		2
	<i>Acacia oldfieldii</i>	native		1
Summer scented wattle	<i>Acacia rostellifera</i>	native		1
Orange wattle	<i>Acacia saligna</i>	native		4
	<i>Acacia scirpifolia</i>	native		7
Kurara	<i>Acacia tetragonophylla</i>	native		1
	<i>Acanthocarpus</i> sp.	native		0
Shrubby She-oak	<i>Allocasuarina campestris</i>	native		1
	<i>Alyogyne hakeifolia</i>	native		2
	<i>Aphelia</i> sp.	native		1
	<i>Arthropodium dyeri</i>	native		1
	<i>Austrostipa elegantissima</i>	native		1
Annual spear-grass	<i>Austrostipa macalpinei</i>	native		6
	<i>Austrostipa nitida</i>	native		1
	<i>Austrostipa tenuifolia</i>	native		1
Slender banksia	<i>Banksia attenuata</i>	native		1
	<i>Banksia fraseri</i> var. <i>ashbyi</i>	native		1
Acorn Banksia	<i>Banksia prionotes</i>	native		4
Swan River Daisy	<i>Brachyscome iberidifolia</i>	native		1
	<i>Burchardia rosea</i>	native		1
Strap Purslane	<i>Calandrinia corrigioloides</i>	native		1
Pygmy Purslane	<i>Calandrinia granulifera</i>	native		1
Parakeelya	<i>Calandrinia liniflora</i>	native		2
Parakeelya	<i>Calandrinia polyandra</i>	native		3
	<i>Calandrinia polypetala</i>	native		1
	<i>Calandrinia rubrisabulosa</i>	native	P3	1
	<i>Calandrinia</i> sp.1	native		1
	<i>Calandrinia</i> sp.2	native		1
	<i>Calocephalus francisii</i>	native		4
Fine-leaf beauty-heads	<i>Calothamnus chrysanthereus</i>	native		2
	<i>Calytrix brevifolia</i>	native		1
	<i>Calytrix strigosa</i>	native		1
	<i>Cartonema philydroides</i>	native		0
	<i>Cassytha</i> sp.	native		1
	<i>Centrolepis drummondiana</i>	native		0
	<i>Centrolepis polygna</i>	native		0
	<i>Centrolepis</i> sp.	native		1
	<i>Ceratogyne obionoides</i>	native		0
Blue Squill	<i>Chamaescilla corymbosa</i>	native		0
	<i>Comesperma integerrimum</i>	native		1
prickly conostylis	<i>Conostylis aculeata</i>	native		1
Cotton heads	<i>Conostylis robusta</i>	native		1
	<i>Conostylis spyridioides</i>	native		0

Intricate Zigzag Lily	<i>Corynotheca dichotoma</i>	native		0
Smooth Cotula	<i>Cotula cotuloides</i>	native		1
Spreading Crassula	<i>Crassula decumbens</i> var. <i>decumbens</i>	native		1
	<i>Cuscuta</i> sp.	native		1
Spiny Flat-sedge	<i>Cyperus gymnocaulos</i>	native		1
Australian Carrot	<i>Daucus glochidiadus</i>	native		1
	<i>Desmocladas asper</i>	native		0
	<i>Desmocladas glomeratus</i>	native		0
	<i>Desmocladas</i> sp.	native		0
Warrine	<i>Dioscorea hastifolia</i>	native		2
Black goosefoot	<i>Dysphania melanocarpa</i>	native		1
	<i>Eremaea ebracteata</i>	native		1
River red gum	<i>Eucalyptus camaldulensis</i>	native		4
River red gum – Western Coolibah hybrid	<i>Eucalyptus camaludulensis x victrix</i>	native		0
Caustic Weed	<i>Euphorbia drummondii</i>	native		0
	<i>Gnephosis tenuissima</i>	native		2
	<i>Gompholobium glutinosum</i>	native		1
	<i>Goodenia berardiana</i>	native		1
Cutleaf Goodenia	<i>Goodenia pinnatifida</i>	native		1
White Plume Grevillea	<i>Grevillea leucopteris</i>	native		2
	<i>Grevillea pinaster</i>	native		1
Rough-fruit Grevillea	<i>Grevillea trachytheca</i>	native		1
	<i>Heliotropium ammophilum</i>	native		1
	<i>Hibbertia desmophylla</i>	native		2
	<i>Hyalosperma cotula</i>	native		1
	<i>Hyalosperma demissum</i>	native		1
	<i>Isolepis congrua</i>	native		1
	<i>Isolepis</i> sp.	native		1
	<i>Jacksonia cupulifera</i>	native		1
	<i>Labichea lanceolata</i> ssp. <i>brevifolia</i>	native		1
	<i>Labichea lanceolata</i> ssp. <i>lanceolata</i>	native		1
	Lambs wool	<i>Lachnostachys eriobotrya</i>	native	
Sticky Everlasting	<i>Lawrencella davenportii</i>	native		2
	<i>Lawrencella rosea</i>	native		1
Free-flowering Leschenaultia	<i>Lechanaultia floribunda</i>	native		1
	<i>Lepidobolus preissianus</i>	native		2
Sedge	<i>Lepidosperma tenue</i>	native		0
Trumpet Stylewort	<i>Levenhookia leptantha</i>	native		0
Midget Stylewort	<i>Levenhookia pusilla</i>	native		1
Angled Lobelia	<i>Lobelia anceps</i>	native		1
	<i>Lomandra maritima</i>	native		1
	<i>Macarthuria intricata</i>	native	P3	2
	<i>Malleostemon hursthousia</i>	native		1
	<i>Melaleuca calothamnoides</i>	native		0
	<i>Melaleuca concreta</i>	native		0
	Swamp sheaok	<i>Melaleuca raphiophylla</i>	native	
<i>Mesomaleana pseudostygia</i>		native		0
<i>Mirbelia ramulosa</i>		native		0

	<i>Myrtacea</i> sp. STABM	native	1
	<i>Myrtaceae</i> sp. 3	native	1
	<i>Myrtaceae</i> sp.2 STABM	native	0
Foxtail Mulga Grass	<i>Neurachne alopecuroidea</i>	native	1
	<i>Olearia</i> sp. Kennedy Range	native	3
Shrubby Riceflower	<i>Pimelea microcephala</i>	native	2
	<i>Podolepis aristata</i>	native	1
Golden long-heads	<i>Podotheca gnaphalioides</i>	native	3
	<i>Ptilotus grandiflorus</i>	native	2
	<i>Ptilotus humilis</i>	native	1
Soft saltbush	<i>Rhagodia preissii</i>	native	1
Pink Everlasting	<i>Rhodanthe chlorocephala</i> ssp. <i>Rosea</i>	native	0
Mangles everlasting	<i>Rhodanthe manglesii</i>	native	0
	<i>Rhodanthe stricta</i>	native	0
	<i>Schoenus clandestinus</i>	native	1
	<i>Scholtzia uberiflora</i>	native	2
Crinkle-leaved firebush	<i>Seringia hermanniifolia</i>	native	0
	<i>Solanum oldfieldii</i>	native	0
Purple Tassels	<i>Sowerbaea laxiflora</i>	native	0
	<i>Stylidium despermum</i>	native	1
Tall Triggerplant	<i>Stylidium elongatum</i>	native	1
Fringed lily	<i>Thysanotus manglesianus</i>	native	1
	<i>Trachymene ceratocarpa</i>	native	2
Purple Parsnip	<i>Trachymene cyanopetala</i>	native	1
Druce Spongefruit	<i>Trachymene ornata</i>	native	1
Native parsnip	<i>Trachymene pilosa</i>	native	3
	<i>Triglochin mucronata</i>	native	1
	<i>Triodia danthonioides</i>	native	1
Pink Velleia	<i>Velleia rosea</i>	native	0
	<i>Wahlenbergia preissii</i>	native	0
	<i>Wahlenbergia</i> sp.	native	3
	<i>Wahlenbergia tumidifructa</i>	native	0
	<i>Waitzia nitida</i>	native	2
Sandplain woody pear	<i>Xylomelum angustifolium</i>	native	1
Cape weed	<i>Arctotheca calendula</i>	weed	6
Sand brome	<i>Bromus arenarius</i>	weed	1
	<i>Bromus</i> sp.	weed	2
Maltese cockspur	<i>Centaurea melitensis</i>	weed	3
Mouse Ear Chickweed	<i>Cerastium glomeratum</i>	weed	0
Waterbuttons	<i>Cotula coronopifolia</i>	weed	0
	<i>Crassula alata</i>	weed	1
Couch	<i>Cynodon dactylon</i>	weed	1
Annual veldt grass	<i>Ehrharta longiflora</i>	weed	8
Barley grass	<i>Hordeum leporinum</i>	weed	2
Smooth cats-ear	<i>Hypochaeris glabra</i>	weed	5
Toad Rush	<i>Juncus bufonius</i>	weed	1
	<i>Lamarckia aurens</i>	weed	1
Cretan Weed	<i>Leontodon rhagadioloides</i>	weed	3

Perennial Ryegrass	<i>Lolium perenne</i>	weed	1
Pimpernel	<i>Lysimachia arvensis</i>	weed	4
Small burr medic	<i>Medicago minima</i>	weed	2
Burr medic	<i>Medicago polymorpha</i>	weed	3
	<i>Melilotus indica</i>	weed	3
Coast Barbgrass	<i>Parapolis incurva</i>	weed	1
False Hair-grass	<i>Pentameris airoides</i>	weed	5
Buckshorn Plantain	<i>Plantago coronopus</i>	weed	1
Fourleaf Allseed	<i>Polycarpon tetraphyllum</i>	weed	2
Annual Beardgrass	<i>Polypogon monspeliensis</i>	weed	1
Wild radish	<i>Raphanus raphanistrum</i>	weed	2
False Sowthistle	<i>Reichardia tingitana</i>	weed	1
	<i>Rostraria pumila</i>	weed	2
Doublegee	<i>Rumex australis</i>	weed	1
French catchfly	<i>Silene gallica</i>	weed	1
Mediterranean Catchfly	<i>Silene noctura</i>	weed	1
Smooth mustard	<i>Sisymbrium erysimoides</i>	weed	1
Black nightshade	<i>Solanum nigrum</i>	weed	1
Common Sowthistle	<i>Sonchus oleraceus</i>	weed	1
Corn Spurry	<i>Spergula arvensis</i>	weed	1
Rose Clover	<i>Trifolium hirtum</i>	weed	0
False hawkbit	<i>Urospermum picroides</i>	weed	1
Rat's Tail Fescue	<i>Vulpia myuros</i>	weed	2
	<i>Vulpia sp.</i>	weed	1
Cape Bluebell	<i>Wahlenbergia capensis</i>	weed	3

Figure S1: Plant species accumulation curves in (a) four quadrats in banksia woodland and (b) four quadrats in riverine eucalypt woodland at Murchison House Station, Kalbarri WA.

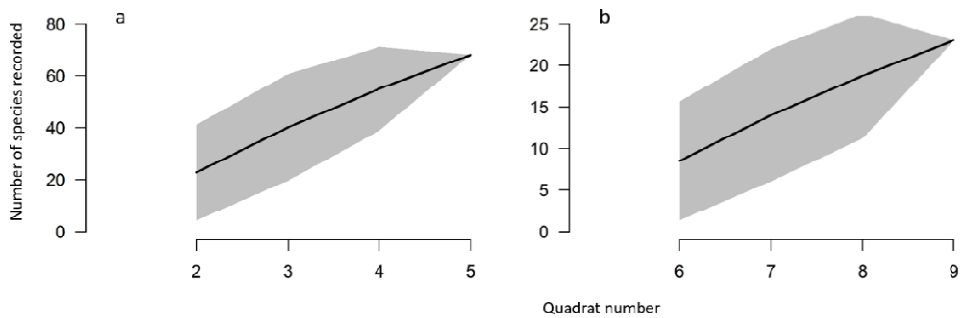


Figure S2: Maximum vegetation heights measured along four transects in banksia woodland habitat on Murchison House Station.

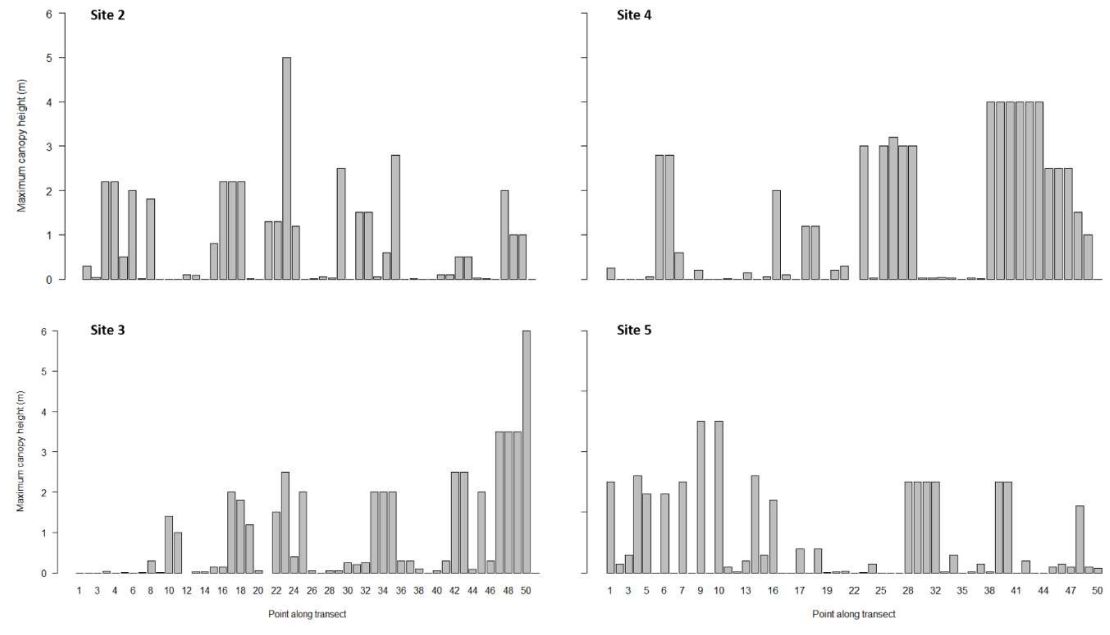


Figure S3: Maximum vegetation heights measured along four transects in eucalypt woodland habitat on Murchison House Station

