

Corrigin BioBlitz Report



Corrigin Reserve

(Water Reserve 16196 and Shire aerodrome reserve 28131)

October 2008



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COUNTRY

.This is a Wheatbelt NRM project funded through the Australian Government's Caring for our Country and with collaboration from WWF Australia



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First published in August 2009 by:
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For bibliographic purposes, this report should be cited as:
Mills, H. and McPhee, S. 2009, Corrigin BioBlitz Report 2008. WWF-Australia, Sydney.

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Cover photo: Approx. ¾ of the participants in the 2008 BioBlitz at Lew's Lookout. Photo: Mike Roache/WWF-Australia.



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Acknowledgments

WWF-Australia would sincerely like to thank the following groups and individuals for their contributions towards the 2008 Corrigin BioBlitz:

- Wheatbelt NRM with funds from the Australian Government for supporting the two projects under which the event was run – Back from the Edge and Healthy Ecosystems.
- The Shire of Corrigin for their generous support, including: permission to conduct the survey in Shire-vested parts of the reserve; provision of the camping area and facilities at the Cyril Box Recreation Reserve; provision and setting-up of the marquee and use of the community bus and portaloos on the day.
- DEC for providing Back from the Edge staff time and equipment to run the event.
- The Water Corporation for their permission to conduct the survey in parts of the reserve vested in them.
- WWF staff: Kath Howard for organising the inaugural 'Corrigin Quiz' and driving a minibus. Also Mike Roache, Carl Danzi and Mike Griffiths for their services as bus drivers and team leaders. David McFarlane for assisting with registrations and administration.
- Bamford Consulting Ecologists and Department of Water, Northam, for the loan of equipment such as two-way radios, pitfall traps and digging equipment.
- All of the team leaders and BioBlitz volunteers.

Many thanks also to Ms Sandy Turton for her assistance before and throughout the event, which was critical to the weekend's success.

Helena Mills & Sally McPhee
2008 Corrigin BioBlitz Organisers
WWF-Australia





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1.0 INTRODUCTION

1.1. Background

The 2008 Corrigin BioBlitz was the fifth community-based, collaborative, 24-hour biological survey organised by WWF-Australia (WWF) in the Avon River Basin. Professional and amateur biologists, ecologists and naturalists - working as volunteers for WWF - conducted fieldwork with members of the local Corrigin community to help them discover more about the faunal biodiversity in their very high conservation value local reserve. The data obtained during the BioBlitz provides a useful indicator of environmental quality and serves as a baseline for future monitoring and management of the reserves.

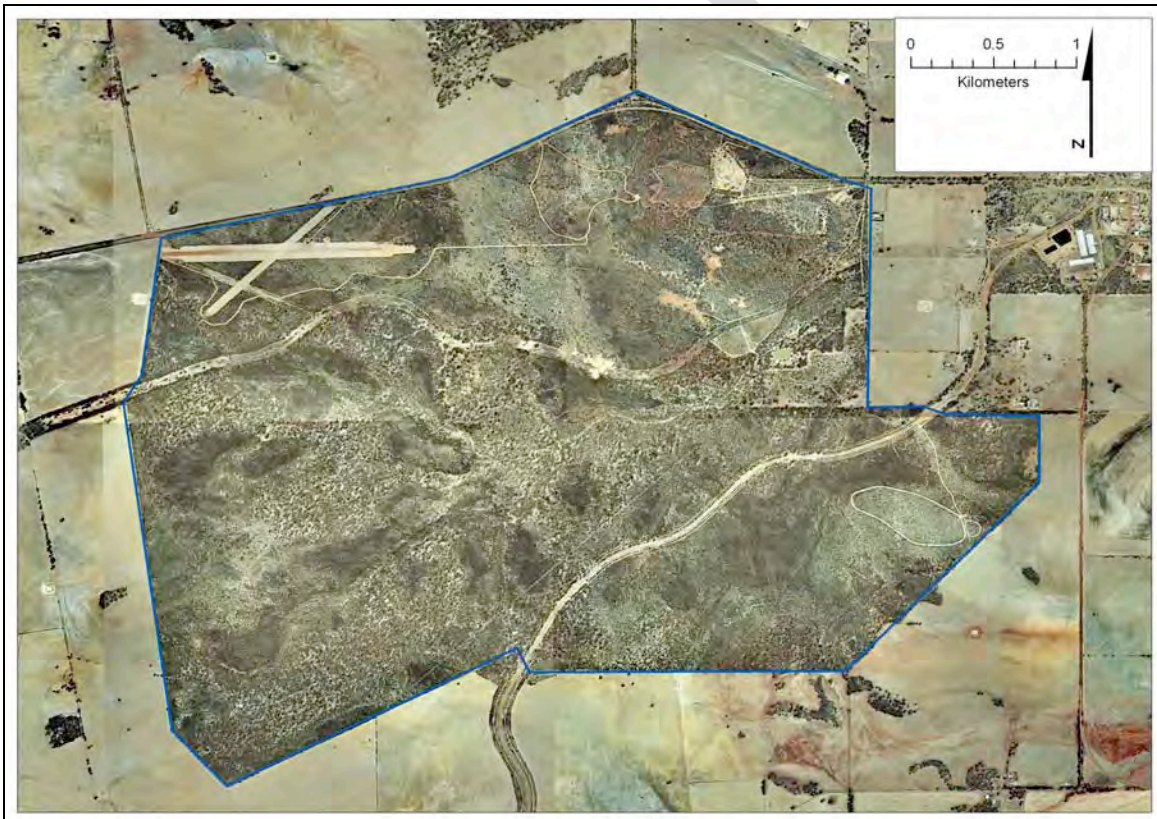


Figure 1 – Corrigin Reserve outlined in blue.



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1.2. Project Description

The 2008 Corrigin BioBlitz involved a biodiversity survey team brought together specifically for the purpose of conducting a “snapshot” survey of fauna in this reserve. The BioBlitz was organised by WWF in response to a lack of scientific information on the fauna supported by the reserve – which is important for developing management recommendations for the reserve.

1.3. Rationale

The Corrigin Reserve is one of the largest and most important areas of remnant vegetation in the central Wheatbelt. The Healthy Ecosystems project has a set of priority vegetation associations that are a focus for conservation (Richardson 2007). The goal of the project is to work with land managers of priority areas that are not part of the conservation estate to improve management and increase long-term protection of these areas. The Corrigin Reserve forms the largest remnant of one priority vegetation association, and some of the largest remnants of another (see figure 1). As such, it is a priority for the Healthy Ecosystems project to assist the managers of the Corrigin Reserve to improve management of the area and increase its protection.

In order to make management recommendations for the reserve, it is important to know what species of plants and animals it supports. While the area has had significant flora survey effort (with over 500 species recorded (R. Campbell, pers.com.)), there have been no substantial fauna surveys. As such, it was considered high priority to undertake a fauna survey of the reserve.

In addition, there was some anecdotal evidence of Malleefowl present in the reserve, as well as possible habitat for Red-tailed Phascogale – both species are listed as threatened at both a State and Commonwealth level. As such, the reserve was also an area of interest for the Back from the Edge project, and much in need of surveys to establish the presence of these species. WWF’s role in the Back from the Edge project is



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community engagement in threatened species conservation. As such, the BioBlitz format was considered to be the best option for engaging the community while meeting the needs of both the Healthy Ecosystems and Back from the Edge projects. In conducting a Malleefowl survey as part of the event, the BioBlitz also met a target of WWF's Malleefowl project, also run in partnership with the Wheatbelt NRM.

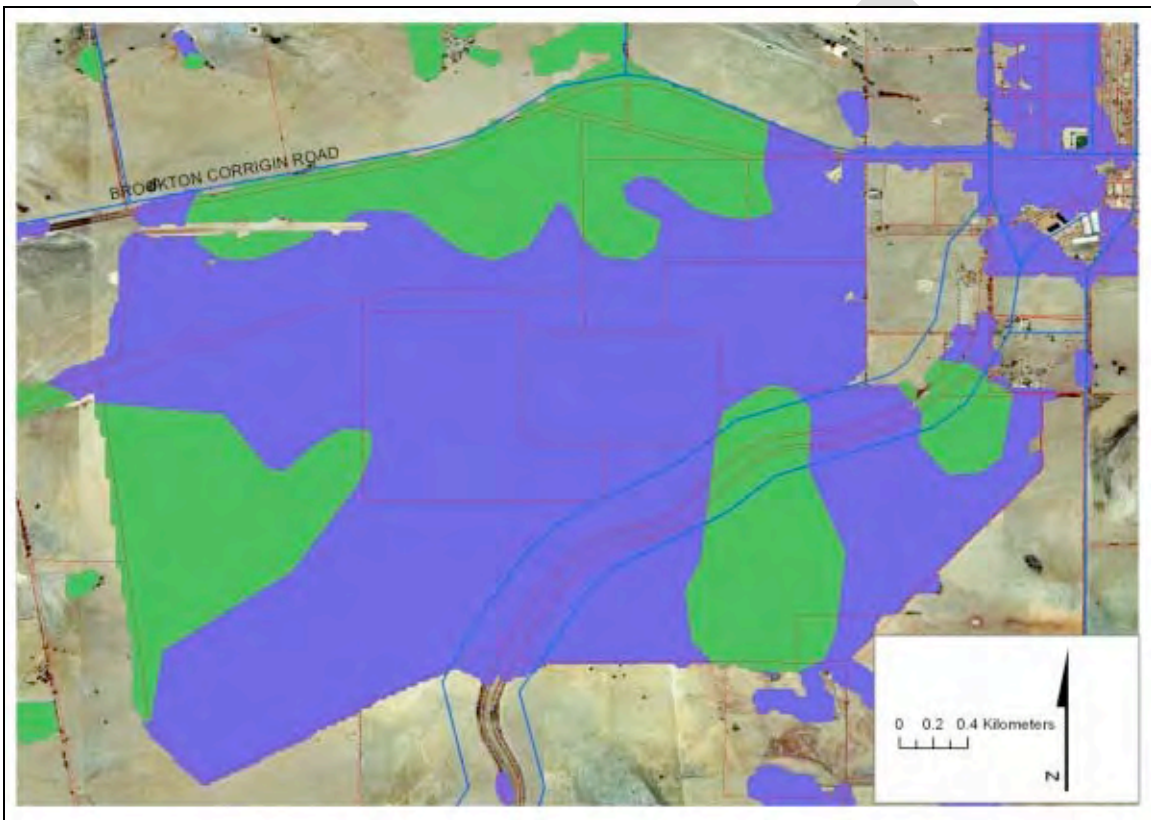


Figure 2 – Corrigin Reserve with priority vegetation associations overlaid. The reserve is mapped as the largest remnant of BHVA 1023 (Medium woodland; York Gum, Wandoo and Salmon Gum), here in blue, and mapped as the third, sixth, seventh and twenty-third largest remnants of BHVA 1147 (Shrublands; scrub-heath in the SW Avon Wheatbelt region), here in green.

1.4. Goals

The BioBlitz is a great tool for educating the public about the diverse array of species in an area. The BioBlitz will not give you a complete inventory of species; it's just a "snapshot" of what species occur in the area (Censky 2001). As such the primary goals of the 2008 Corrigin BioBlitz were to:

- collect data on the occurrence of as many fauna species, from as many taxonomic groups, as possible in a 24-hour time period;
- identify any rare and unique species that may be located in the reserves;
- raise awareness, both locally and more broadly, of the biodiversity richness (and the natural value) of this high conservation value patch of bush;
- bring specialists with considerable expertise to a rural community for scientific endeavour;
- build links between scientists and community members, and between urban and rural residents;
- create a local learning opportunity – as one of the best ways to learn about biodiversity is to get out into the field alongside experienced scientists; and
- have fun – making an enjoyable day for everyone in the bush, while collecting baseline biological information.



Figure 3 – Stephen Davies, Pierce Fishlock, Josh Williams, Angus Dempster and Bridie Dempster examine a Brown Honeyeater. Photo: Simone Dempster.



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2.0 List of Participants

Over 120 people contributed to and/or participated in the 2008 Corrigin BioBlitz, the majority of whom are listed below. The voluntary efforts of every participant contributed to the success of the 2008 Corrigin BioBlitz - the fifth BioBlitz to be conducted in the Wheatbelt by WWF. A special thanks goes to the Team Leaders (in bold text) who volunteered their time and expertise to be involved in the survey. Finally, we extend an extra thank you to the participants who helped digging holes in rock-hard clay for pit traps.

Adam Randell	Helena Mills	Michael Roache
Adrian Wayne	Isaac Henarae	Mick Davis
Alan Throne	Jacob Loughridge	Mike Griffiths
Alasdair Malloch-Smith	Jason Hu	Momo Kington
Angus Dempster	Jenny Pitman	Monty House
Anna Brusch	Jeran McFarlane	Neil Gannaway
Anton Faizal	Jesse Kalic	Nicola Palmer
Ash McFarlane	Jill Gannaway	Penny Brooshooft
Bella Rendell	John Clarke	Peter Mioduszewski
Ben Brusch	John Dart	Pierce Fishlock
Ben Riley	John Graff	Rebecca McCracken
Bev Clare	Johnathon Williams	Robert Clare
Bill Johnston	Jordan Mills	Robin Campbell
Bob Dixon	Josh Williams	Roisin Johnston
Bridget Flint	Judy Williams	Ron Gannaway
Bridie Dempster	Julia Wayne	Ruby Johnston
Buddy Kent	Julian Murphy	Sally McPhee
Cameron Craigie	Kate Gole	Sandy Turton
Carl Danzi	Kathy Howard	Sarah Gresser
Christopher Taylor	Katie Watson	Shannon Mioduszewski
Cliff Fishlock	Katrina Zeehandelaar	Sharon Barret
Clifford Benison	Kayla Hardcastle	Sheena House



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Clive Hamilton	Kim Nguyen	Simon Cherriman
Cressida Wilson	Lawry Pitman	Simon Dempster
Cullan Breen	Leanne Needs	Simone Dempster
Danielle Gannaway	Lester Green	Simone Varvell
David McFarlane	Liam Johnston	Sonya Martinez
David Whitehead	Lilly Henarae	Stephen Davies
Dennis Joyce	Lindsey Spiller	Stewart Lee
Dianne McBeath	Linette Umbrello	Sylvia Collard
Don Collard	Liz Kington	Tam Lee-Steere
Don Smith	Lorna Timbers	Tapfuma Vudzijena
Ellen Williams	Louise Clarke	Telulah Payne
Emma McKowan	Lynete Williams	Therese van Driel
Eric McCrum	Margaret McCrum	Tobias Vudzijena
Eva Smith	Martin Gole	Tom McBeath
Geoff Burrows	Matt Smith	Troy Eikelboom
Geoff Gole	Merv Burns	Wendy Throne
Gerald Williams	Michael Curran	William Johnston
Hayden Cannon	Michael Gannaway	



Figure 4 – Briefing begins at BioBlitz Headquarters. Photo: Matt Smith.



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3.0 Site Description

3.1. Site Location

The Corrigin Reserve (primarily comprising Water Reserve 16196 and Shire Aerodrome Reserve 28131) is located in the Shire of Corrigin, in the central Wheatbelt of Western Australia. The reserve is less than 5 km west of the town of Corrigin – 234 km south east of Perth, on the Brookton Highway. Corrigin occurs within the Avon River Basin, which is generally equivalent to the Wheatbelt Natural Resource Management Region.

The majority of the Corrigin Reserve is made up of Water Reserve 16196, and is vested in the Water Corporation for the purposes of water supply.

The next largest area is the Shire's aerodrome reserve 28131, which is vested in the shire. There are also a number of smaller shire reserves within the bushland remnant, variously vested for rubbish dumps, firing ranges and race tracks, amongst others.



For more specific detail on the condition, tenure and management of Corrigin Reserve, please refer to the 'Corrigin Reserve – recommendations for future management' report produced by WWF for Wheatbelt NRM (Mills 2009).

Figure 5 - View south across the reserve from Lew's Lookout.



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3.2. GPS and Map Co-ordinates

Corrigin Reserve (Lew's Lookout): Latitude **32°20'06"S** Longitude **117°50'48"E**

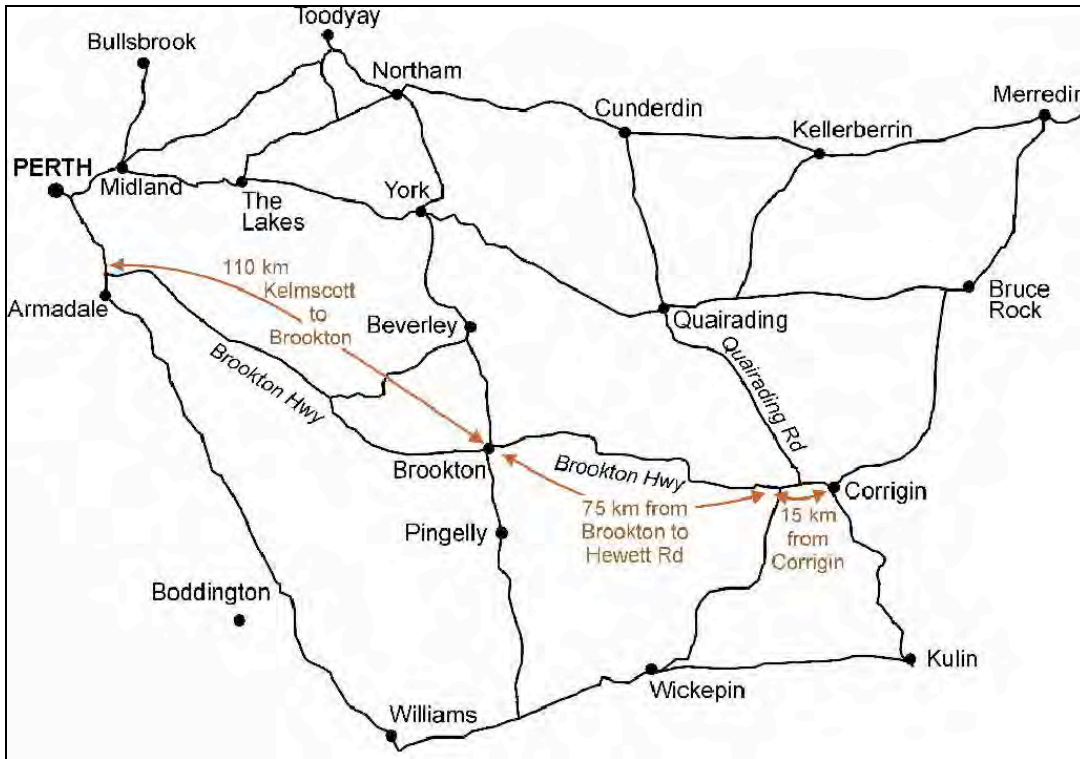


Figure 6 - Location of Corrigin in relation to Perth.

3.3. Weather Conditions

Corrigin has a typical Wheatbelt climate – a Dry Warm Mediterranean climate - with hot dry summers and mild wet winters (Napier and Coates, 1986). Corrigin itself is around 300 m above sea level, though the reserve is higher than the town. Corrigin has an average yearly rainfall of 375 mm. Most of the rain is received in winter from May to August with occasional thunderstorms in late summer and early autumn. Typical temperatures in the area range from 5°C to 16°C during the winter months (June-



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August) to 14°C to 32°C during summer (December-February) (Commonwealth of Australia 2009, Bureau of Meteorology).

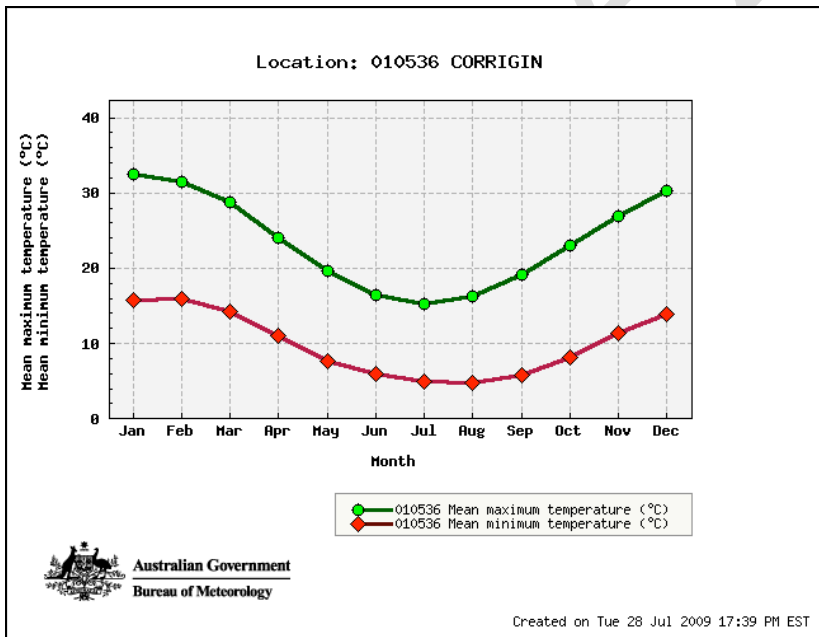
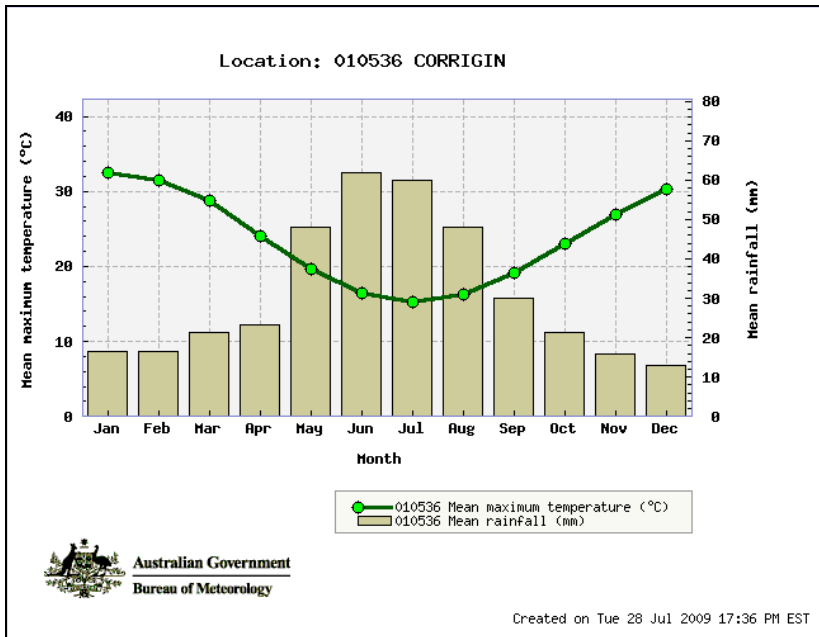


Figure 7 – Annual Temperature and Rainfall patterns for the Corrigin (Commonwealth of Australia 2009, Bureau of Meteorology)



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The weather for the 2008 BioBlitz was perfect, with clear skies, gentle winds, warm days and cool evenings. The temperatures recorded in Corrigin during the BioBlitz weekend were: Saturday - min 8°C, max 26.3°C; and Sunday - min 10.2°C, max 30.9°C (Commonwealth of Australia 2009, Bureau of Meteorology).

3.4. Geology and Soils

Napier and Coates (1986) recorded three basic soil types in Corrigin Reserve – alluvial sandy loams along the main watercourse, yellow sands on slopes and laterite on higher, plateau areas.

3.5. Vegetation types

The reserve has been broadly mapped as comprising two Beards Hopkins Vegetation Associations: BHVA 1023 (Medium woodland; York Gum, Wandoo and Salmon Gum) and BHVA 1147 (Shrublands; scrub-heath in the SW Avon Wheatbelt region). While these vegetation association descriptions and maps are broadly accurate, the BHVAs are made up, at a finer scale, of vegetation types. The vegetation of the Corrigin Reserve was mapped in 1986 by Anne Napier and Anne Coates as part of a report on the reserve commissioned by DEC (then CALM).

Napier and Coates (1986) described and mapped 14 vegetation types, based on Muir (1977), including six types of forest/woodland, three types of mallee and five types of thicket/heath (listed in Table 1). These vegetation types were mixed and formed mosaics in some parts of the Reserve.



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Table 1. List of vegetation types described by Napier and Coates (1986).

Woodlands	York Gum (<i>Eucalyptus loxophleba</i>) Woodland
	Wheatbelt Wandoo (<i>Eucalyptus capillosa</i>) Woodland
	Salmon Gum (<i>Eucalyptus salmonophloia</i>) Woodland
	Salmon Gum (<i>Eucalyptus salmonophloia</i>)/ Mallee Woodland
	<i>Eucalyptus myriadena</i> Woodland
	Silver Mallet (<i>Eucalyptus falcata</i>) Forest
Mallees	Mixed Mallee
	White-leaved Mallee (<i>Eucalyptus albida</i>) over Scrub
	Mallee over Thicket
Thickets/Heaths	Laterite Mixed Heath
	Tamma Thicket
	Sandplain Heath
	Low Heath
	Prostrate <i>Grevillea</i> Heath



Figure 9 – Wheatbelt Wandoo (*Eucalyptus capillosa*) Woodland. Photo: Adrian Wayne.

3.6. Regional Significance

At 1200 ha in size, the Corrigin Reserve is the largest area of remnant vegetation in the central Wheatbelt. Corrigin Shire itself only has about 5% of native vegetation remaining (see Figure 4). There are seven DEC Nature Reserves in Corrigin Shire, almost all of which are extremely small in size. The Corrigin Reserve is “centrally placed in an area devoid of conservation areas” (Napier and Coates, 1986).

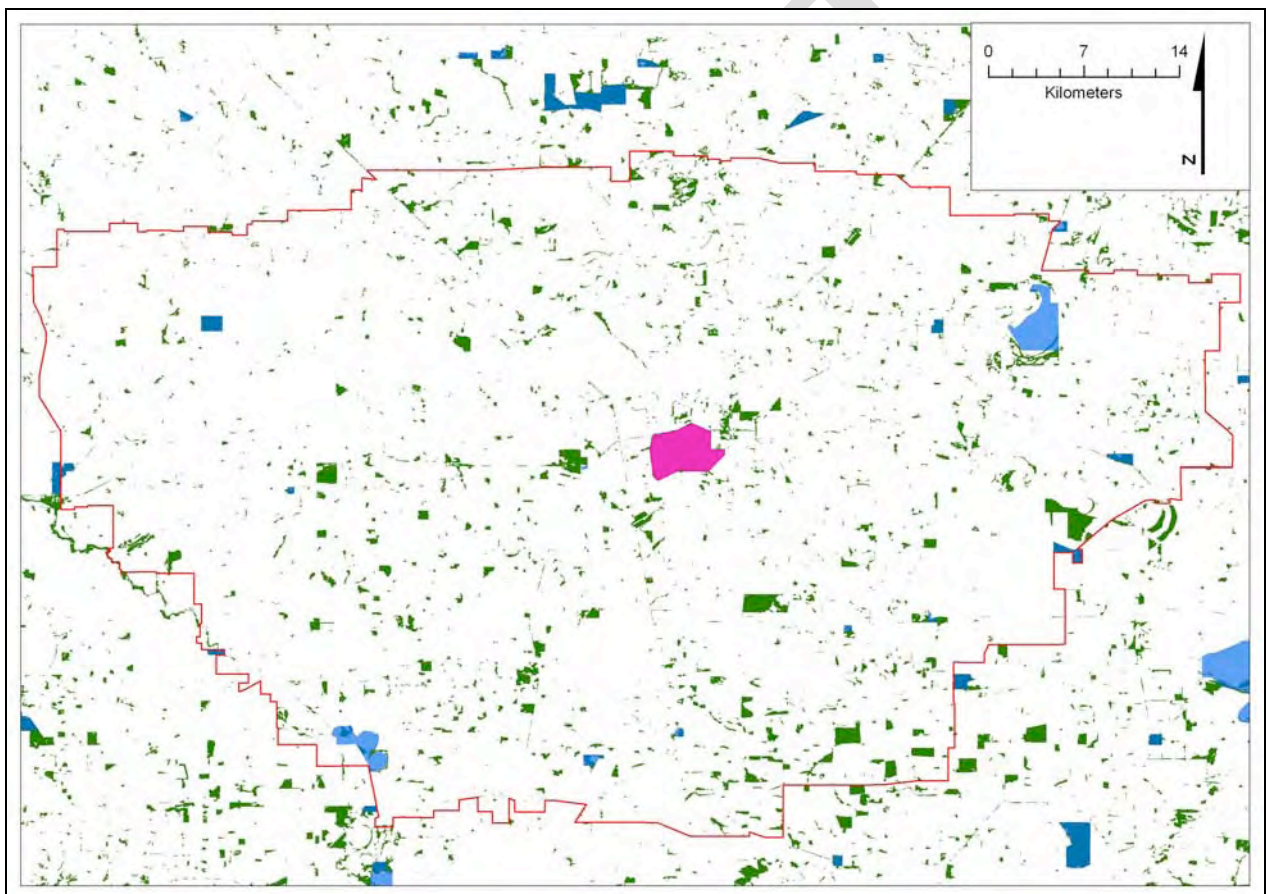


Figure 10 – Vegetation and DEC Reserves in the Corrigin Shire (shire boundary in red). Remnant vegetation is mapped in green, DEC reserves in blue and Corrigin Reserve in pink. Please note that the remnant vegetation on this map has been buffered and remnants appear significantly larger than they actually are.



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4.0 Survey Methodology

The BioBlitz began after an extensive preparation period prior to the arrival of participants in Corrigin in mid-October 2008.

Within the 24-hour survey period there were four survey sessions, two in the afternoon/early evening of 18th October and two in the morning of 19th October – beginning and ending the 24-hour survey period at 1 pm. All data was collected by 1 pm on the Sunday afternoon, collated quickly and general results conveyed to the participants. Please see Attachment 1: Participant Information for more detailed information on the program.

There were up to 10 groups for each session, with up to 12 participants/leaders in each group. Surveys mostly started from four 'field stations' positioned throughout the reserve (including the 'headquarters', based at Lew's Lookout). The 'field stations' were generally different vegetation types (habitats) and spread out over the reserve in order to capture as much of the biodiversity of the site as possible. Field stations were also chosen for their accessibility by buses. The field stations and their vegetation types were:

- Headquarters: Laterite Mixed Heath
Latitude 32°20'06"S Longitude 117°50'48"E
- Field Station 1: Laterite Mixed Heath/ Wheatbelt Wandoo (*Eucalyptus capillosa*)
Woodland
Approx. Latitude 32°20'27"S Longitude 117°49'42"E
- Field Station 2: Low Heath
Approx. Latitude 32°20'27"S Longitude 117°49'42"E
- Field Station 3: Wheatbelt Wandoo (*Eucalyptus capillosa*) Woodland
Latitude 32°21'30"S Longitude 117°50'25"E



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The Malleefowl surveys were not based at specific field stations, instead they explored areas of suitable habitat, primarily in the southern half of the reserve. There were also two flora-focussed walks on the firing range in the NE corner of the reserve.

Participants opportunistically collected information on sightings of fauna, or indications of their presence (such as tracks, scats, calls and digs), as well as carrying out the target methodology, or looking for the target species, of their activity. A licence to take fauna for scientific purposes was granted to cover the event (Licence No. SF6605), and no animals were retained for longer than it took to identify, photograph and, in the case of birds, measure and tag them.



Survey methods used:

- Elliot traps for small mammals (see Elliot Trapping Guidelines at Attachment 2).
- Pit-fall traps for small ground-dwelling fauna generally (including lizards).
- A mist-net to catch birds for banding (with Stephen Davies contributing the information to the Australian Bird and Bat Banding Scheme).
- Sand traps to capture animal tracks.
- Several activities involved walks looking for specific groups, such as Malleefowl, birds in general, trapdoor spiders and insects.

Figure 11 – Adrian Wayne and Tobias Vudzijena setting up a pit-fall trap. Photo: Ben & Anna Brusch.



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Please note that no traps were set in habitat appropriate for Red-tailed Phascogales. While it would be extremely interesting to know whether this species occurs in the reserve, in mid-October this species has young, so the decision was made to avoid stress to the species and deliberately avoid catching them.



Figure 12 – Tawny Frogmouth juveniles. Photo: Simon Cherriman.



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5.0 Results

A total of 127 animal species were recorded from Corrigin Reserve during the 24-hour BioBlitz period. These included: 8 species of mammals (5 of which are introduced species), 9 reptiles, 54 birds and 57 invertebrates (1 of which is an introduced species). See Appendix 1 for the full list of species recorded.

5.1. Fauna

Mammals

Of the mammals, five were feral species (domestic dog, feral cat, European fox, European rabbit and sheep), while the rest were native mammals: Western grey kangaroo, short-beaked echidna and brush-tailed possum.



Figure 13 – Brush-tailed possum scats. Photo: Adrian Wayne.

Reptiles

The surveyors observed eight lizards and one snake over the two days. The lizards included bobtails, a crested dragon, a western bluetongue, a western bearded dragon and a sand monitor. The snake was a dugite (*Pseudonaja affinis*).



Figure 14 – Main's Ground Gecko held by Stewart Lee. Photo: Matt Smith.



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Birds

Fifty-four bird species were identified during the survey, including a malleefowl sighting. While there have been a number of anecdotal sightings of malleefowl in the reserve, their presence had never been officially recorded. As such we were pleased that, in the course of the survey, not only were two old malleefowl mounds observed (shown to us by a local), but also a recent footprint (see figure X), then, finally, a bird was actually sighted. In addition to the nationally-threatened Malleefowl, a number of other birds were observed in the reserve that are generally considered to be remnant dependent and/or declining in the Wheatbelt, including, but not restricted to Inland Thornbill, Jacky Winter, Purple-crowned Lorikeet, Rufous Treecreeper, Southern Scrub-robin, Tawny-crowned Honeyeater and Western Yellow Robin.



Figure 15 – Malleefowl footprint. Photo: Kath Howard/WWF.



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Invertebrates

Invertebrates were not collected, but an expert (Eric McCrum) recorded a large number of species, along with opportunistic observations from participants in all the activities. The invertebrates recorded included twig-lining trapdoor spiders, a stick-insect, a variety of bugs and seven species of grasshoppers. Feral European Honeybees were also observed in the reserve – these bees are a significant threat to hollow-nesting wildlife in the reserve (including native birds, mammals and bats). We are confident that at least 57 different species of invertebrates were observed in total, though of course it is certain that the reserve supports a much larger number of species of invertebrates and a truly exhaustive survey would be required to establish exactly how many species occur there.



Figure 16 – Twig-lining Trapdoor Spider burrow entrance. Photo: Mick Davis/DEC.



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5.2. Lichens

In addition to fauna, one Team Leader with a broad expertise and knowledge, Eric McCrum, opportunistically recorded eleven species of lichens he observed during his invertebrate-focussed walk. As there is no existing lichen list for the reserve, the list he developed has been included at the end of Appendix 1, as it adds to existing knowledge of the reserve's biodiversity.

6.0 Summary

The BioBlitz was regarded as a great success – all of the participants enjoyed themselves and learnt more about the gem that is Corrigin Reserve, Malleefowl sightings by locals were confirmed and a large number of birds, including numerous declining species, were found to call the reserve home. However, there was one big gap in the species recorded – despite specific trapping effort there were very few small and medium-sized native mammals and reptiles recorded. It is thought that this absence in what is a large, and otherwise largely intact, area of native vegetation is due entirely to the high levels of cats and foxes in the reserve.



Figure 6 – Gavin and Josh Ludlow with old Malleefowl mound. Photo: Mick Davis (DEC).



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7.0 Recommendations

Not only is Corrigin Reserve is the largest area of remnant vegetation in the central Wheatbelt, it contains large areas of excellent condition, priority native vegetation and supports a huge number of species of both plants and animals. While there is a good community understanding of the value of the reserve for threatened plants, its significance in terms of size and its importance for threatened and declining species of animals does not appear to be well understood. The precariousness of the populations of animals that do remain in the reserve, such as Malleefowl, is also poorly understood. As such, the three primary recommendations to come out of the BioBlitz are these:

- Establish a 'Friends of Corrigin Reserve' group to enthuse and inform the people of Corrigin about the reserve and its importance for conservation,
- Begin programs to reduce and control the numbers of foxes and cats in Corrigin Reserve, and
- Undertake surveys for the Red-tailed Phascogale in the reserve at an appropriate time of year.

The Shire of Corrigin has already taken steps to address these recommendations, including improving waste management in the Corrigin tip to reduce vermin and feral predators and conducting baiting and shooting programs for cats and foxes in the reserve. WWF commends the Shire of Corrigin for their initiative and dedication to the Corrigin Reserve, and will support the Shire in its ongoing efforts.

For further recommendations regarding the condition, tenure and management of Corrigin Reserve, please refer to the 'Corrigin Reserve – recommendations for future management' report produced by WWF for Wheatbelt NRM (Mills 2009).



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8.0 References

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Figure 6 – Sunset through White-leaved Mallee (*Eucalyptus albida*) over Scrub. Photo: Kate Gole.



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APPENDIX I – Species lists

Full species list recorded at 2008 Corrigin BioBlitz, 18th & 19th October 2008. Please note that, where possible, species have been identified to a species or genus level (written here in *italics*). If this was not possible, they have been identified to the level of order (shown here in plain text).

Scientific Name	Common Name
Mammals (8)	
<i>Tachyglossus aculeatus</i>	Echidna*
<i>Trichosurus vulpecula</i>	Brushtail Possum*
<i>Macropus fuliginosus</i>	Western Grey Kangaroo*
<i>Felis catus</i>	Cat
<i>Canis lupus</i>	Dog*
<i>Vulpes vulpes</i>	European Fox*
<i>Oryctolagus cuniculus</i>	European Rabbit*
<i>Ovis aries</i>	Sheep*
Reptiles/Amphibians (9)	
Lizards	
<i>Tiliqua rugosa</i>	Bobtail
<i>Ctenophorus cristatus</i>	Crested Dragon
<i>Pogona minor minor</i>	Western Bearded Dragon
<i>Tiliqua occipitalis</i>	Western Bluetongue
<i>Varanus gouldii</i>	Sand Monitor/Gould's Monitor
<i>Cryptoblepharus plagiocephalus</i>	Fence Skink/Callose-palmed Snake-eyed Skink
<i>Ctenotus</i> sp.	a skink
<i>Diplodactylus maini</i>	Main's Ground Gecko
Snakes	
<i>Pseudonaja affinis</i>	dugite
Birds (54)	
<i>Gymnorhina tibicen</i>	Australian Magpie
<i>Corvus coronoides</i>	Australian Raven
<i>Barnardius zonarius</i>	Australian Ringneck
<i>Certhionyx niger</i>	Black Honeyeater

* denotes identification by tracks, scats, remains or other traces, as opposed to direct visual or auditory observation of the animal itself



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Birds (cont'd)	
<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-shrike
<i>Artamus cinereus</i>	Black-faced Woodswallow
<i>Falco berigora</i>	Brown Falcon
<i>Accipiter fasciatus</i>	Brown Goshawk
<i>Melithreptus brevirostris</i>	Brown-headed Honeyeater
<i>Lichmera indistincta</i>	Brown Honeyeater
<i>Acanthiza uropygialis</i>	Chestnut-rumped Thornbill
<i>Phaps chalcoptera</i>	Common Bronzewing
<i>Ocyphaps lophotes</i>	Crested Pigeon
<i>Neophema elegans</i>	Elegant Parrot
<i>Eolophus roseicapillus</i>	Galah
<i>Pachycephala pectoralis</i>	Golden Whistler
<i>Cracticus torquatus</i>	Grey Butcherbird
<i>Strepera versicolor</i>	Grey Currawong
<i>Colluricincla harmonica</i>	Grey Shrike-thrush
<i>Chrysococcyx basalis</i>	Horsfield's Bronze-cuckoo
<i>Acanthiza apicalis</i>	Inland Thornbill
<i>Microeca fascinans</i>	Jacky Winter
<i>Grallina cyanoleuca</i>	Mudlark/Magpie-Lark*
<i>Leipoa ocellata</i>	Malleefowl
<i>Diccaeaum hirundinaceum</i>	Mistletoebird
<i>Falco cenchroides</i>	Nankeen Kestrel
<i>Cracticus nigrogularis</i>	Pied Butcherbird
<i>Glossopsitta porphyrocephala</i>	Purple-Crowned Lorikeet
<i>Merops ornatus</i>	Rainbow Bee-Eater
<i>Petroica goodenovii</i>	Red-capped Robin
<i>Anthochaera carunculata</i>	Red Wattlebird
<i>Polytelis anthopeplus</i>	Regent Parrot
<i>Climacteris rufa</i>	Rufous Treecreeper
<i>Pachycephala rufiventris</i>	Rufous Whistler
<i>Zosterops lateralis</i>	Silvereye
<i>Lichenostomus virescens</i>	Singing Honeyeater
<i>Drymodes brunneopygia</i>	Southern Scrub-robin
<i>Pardalotus striatus</i>	Striated Pardalote
<i>Podargus strigoides</i>	Tawny Frogmouth

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Birds (cont'd)	
<i>Phylidonyris melanops</i>	Tawny-crowned Honeyeater
<i>Petrochelidon nigricans</i>	Tree Martin
<i>Daphoenositta chrysoptera</i>	Varied Sittella
<i>Aquila audax</i>	Wedge-tailed Eagle
<i>Smicronis brevirostris</i>	Weebill
<i>Gerygone fusca</i>	Western Gerygone
<i>Eopsaltria griseogularis</i>	Western Yellow Robin
<i>Pomatostomus superciliosus</i>	White-browed Babbler
<i>Phylidonyris nigra</i>	White-cheeked Honeyeater
<i>Lichenostomus leucotis</i>	White-eared Honeyeater
<i>Lalage sueurii</i>	White-winged Triller
<i>Rhipidura leucophrys</i>	Willie Wagtail
<i>Lichenostomus ornatus</i>	Yellow-plumed Honeyeater
<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill
<i>Manorina flavigula</i>	Yellow-throated Miner
Invertebrates (57)	
Chilopoda	Centipedes
<i>Cormacepheles aurontipes</i>	a centipede
<i>Scolopendra morsitans</i>	a centipede
Arachnida	Spiders
<i>Aganippe</i> sp.	a twig-lining trapdoor spider ('pincushion') *
<i>Corasoides</i> sp.	a trampoline spider
<i>Cyrtophora</i> sp.	a tent spider
<i>Dictyna</i> sp.	a tube spider
<i>Eriophora biapiculata</i> (?)	an orbweaver
<i>Gaius villosus</i>	a 'twig-lining' trapdoor spider*
<i>Gasteracantha</i> sp.	a Christmas spider
<i>Idiosoma</i> sp. [†]	a 'twig-lining' trapdoor spider*
<i>Lycosa godeffroyi</i>	Garden Wolf Spider
<i>Nicodamus</i> sp.	a red and black spider
<i>Olios</i> sp.	a huntsman
<i>Storena</i> sp.	a spotted hunter
<i>Tama</i> sp.	a two-tailed spider
<i>Urodacus novae-hollandiae</i>	a sand scorpion*

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† denotes a very uncertain identification – this does not count towards the species totals



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Invertebrates (cont'd)	
Insecta	Insects
<i>Acrotsella</i> sp.	a silverfish
<i>Acrotsella</i> sp.	a silverfish
<i>Cosmozosteria</i> sp.	a cockroach
<i>Euzosteria</i> sp.	a cockroach
<i>Zonioploca medilinea</i>	a cockroach
Isoptera	a mound species of termite*
Isoptera	a wood species of termite*
<i>Coryphistes ruricola</i>	a grasshopper
<i>Goniaea australasiae</i>	a grasshopper
<i>Goniaea vocans</i>	a grasshopper
<i>Goniaea</i> sp.	a grasshopper
<i>Pachysagella</i> sp.	a grasshopper
<i>Paragryllacris</i> sp.	a grasshopper
<i>Urnisa rugosa</i>	a grasshopper
Phasmatodea	a stick-insect
<i>Havinthus</i> sp.	an assassin bug
Hemiptera: Reduviidae	an assassin bug
Hemiptera: Pentatomidea	a flock bug
<i>Nerthra</i> sp.	a toad bug
<i>Poecilometus</i> sp.	a shield bug (with 4 spots)
<i>Poecilometus</i> sp.	a shield-bug (with 2 spots)
Neuroptera	a lacewing*
Coleoptera: Coccinelidae	a lady beetle (4-spot)
Coleoptera: Coccinelidae	a lady beetle (14-spot)
Coleoptera: Curculionoidea	a red-legged weevil
Coleoptera: Curculionoidea	a black-spotted weevil
<i>Melobasis</i> sp.	a jewel beetle
Coleoptera	a beetle
<i>Comptosia</i> sp.	a bee fly
Diptera: Syrphidae	a hover fly
Diptera: Tabanidae	a March fly
Diptera	a hairy fly
<i>Clania</i> sp.	a case moth
<i>Delias aganippe</i>	Wood White (a butterfly)

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Invertebrates (cont'd)	
Insecta (cont'd)	Insects
<i>Lampides boeticus</i>	Long-tailed Pea-blue (a butterfly)
<i>Moerarchis</i> sp.	a moth
Hymenoptera	a wasp
Hymenoptera: Formicidae	an ant
<i>Iridomyrmex</i> sp.	a meat ant
<i>Myrmecia</i> sp.	a bull ant
<i>Apis mellifera</i>	European Honeybee
Odonata	a dragonfly

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Lichens (11)	Substrate
<i>Caloplaca cinnabarina</i>	Rock
<i>Flavoparmelia rutidota</i>	Bark
<i>Lecidea ochroleuca</i>	Soil
<i>Teloschistes chrysophthalmus</i>	Bark
<i>Xanthoparmelia isidiigera</i>	Rock
<i>Xanthoparmelia</i> sp.	Rock
<i>Flavoparmelia marchantii</i>	Bark
<i>Haematomma eremaeum</i>	Bark
<i>Pertusaria</i> sp.	Bark
<i>Usnea scabrada</i>	Bark
<i>Xanthoparmelia tasmanica</i>	Rock