

Perth  
Urban  
Bushland  
Fungi

# Bushland Fungi of Paruna Wildlife Sanctuary

*Written and produced by*

**Neale L. Bougher, Roz Hart,  
Aruni Jayasekera & Brett Glossop**

*Department of Environment and Conservation – Perth Urban Bushland Fungi Project*



*Learning about the fungi collected*



*Foraging group at Paruna*



*Examining the fungi collected*



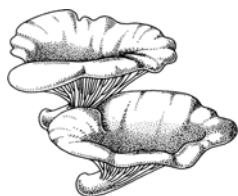
*The finds of the day attract great interest*

**PUBF Website : [www.fungiperth.org.au](http://www.fungiperth.org.au)**



Department of  
Environment and Conservation





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Advice about the identity of the fungi was provided by Dr Neale Bougher, Mycologist. Organisational and technical support was provided by officers on the PUBF project - Roz Hart, Aruni Jayasekera, and Brett Glossop.

Photos and field assistance by PUBF participants

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This report presents data from the Perth Urban Bushland Fungi (PUBF) Project event held on 14 June 2009 at Paruna Wildlife Sanctuary - a privately managed bushland area in the Perth hills region of southwest Western Australia. The event was organised with the assistance of the Australian Wildlife Conservancy (AWC) who manage the Sanctuary. The event was supported by the Darling Range Branch of the Western Australian Naturalists' Club, many of whose members participated in the fungi walk.

Forty six people attended the event. The participants were divided into five foray groups, led by Mark Brundrett, Laurton McGurk and Derek Mead-Hunter; Kevn Griffiths and Phylis Robertson; Margaret Langley and Tanja Lambe; Joe Froudast and Kirsten Tullis; and Roz Hart and Jolanda Keeble; all volunteer Leaders from the PUBF Project. As it was an unseasonably warm and sunny day, the fungi collected were examined on the outdoor tables and there was great interest and discussion about the fungi found in this area. Mycologist Neale Bougher identified the fungi and talked about their features and their roles in helping to keep bushlands healthy. After lunch, the fungi leaders and Neale Bougher went to the Paruna research shed where some of the fungi were described and vouchered for permanent lodgement at the Western Australian Herbarium.

## **Paruna Wildlife Sanctuary**

Paruna Wildlife Sanctuary is situated in the Avon Valley east of Perth in the Shire of Swan, and occurs mainly on laterite duricrust (*the thin hard layer on or near the surface of soil, formed in semiarid climates by precipitation of salts*) on the western edge of the Darling Plateau. The Sanctuary spans about 2,000 hectares of bushland and forms a wildlife corridor linking the Avon Valley National Park and Walyunga National Park. Paruna has four major vegetation complexes including open forest, woodland, shrubland and heathland (Paruna Sanctuary Ltd., Karakamia Sanctuary Ltd., 1998). Wandoo (*Eucalyptus wandoo*) and powderbark wandoo (*Eucalyptus accedens*) predominate in woodland over much of the area. Paruna Wildlife Sanctuary has been managed by the Australian Wildlife Conservancy since 1998. Fencing and baiting programs since that time working to eliminate feral species have eliminated or reduced foxes and cats at Paruna. As a result the populations of some native mammals such as western quolls have increased. A total of 16 mammal species are known to occur at Paruna; many more species are thought to have become locally extinct in recent decades.

A major aim of Paruna Wildlife Sanctuary is to re-establish natural plant and animal communities and to contribute to recovery programs for WA's threatened wildlife species (Paruna Sanctuary Ltd., Karakamia Sanctuary Ltd. (1998). Fungi directly interact with native plant and animal communities and therefore have significant roles to play in determining the success or otherwise of this aim. For example, in recent years, woylies (*Bettongia penicillata*) have been translocated into Paruna. Woylies are mycophagous, i.e. they feed on fungi (Claridge *et al.*, 1996; Maser *et al.*, 2008), and studies are now underway to understand their ecology, including how their fungal diet may influence the health and size of their populations.

## **Paruna Wildlife Sanctuary Fungi**

During the survey at Paruna Wildlife Sanctuary in June 2009 a total of 46 records, including 29 different fungi species were recorded. Of these fungi species, 17 collections were vouchered into the DEC Western Australian Herbarium (Tables 1, 2).

The majority of fungi observed during the survey at Paruna Wildlife Sanctuary were decomposer fungi - such as the Gregarious Bells *Campanella gregaria* found on the underside of fallen wood. Only two species of beneficial mycorrhizal fungi were recorded - of the genera *Tomentella* and *Royoungia*. They represent very different forms of fungi. *Tomentella* cf. *pilosa* is not a conspicuous fungus as it is a fully resupinate fungus appearing as a mould-like growth on old dead logs or fallen wood. It usually only occurs on the underside of logs and often favours burnt wood. *Royoungia boletoides* is also an inconspicuous fungus, in its case because it is a truffle and occurs under the litter. However once it is uncovered this fungus is extremely conspicuous because its surface is bright golden yellow. The fruit bodies are up to 35 mm, broad, ellipsoid to subglobose, and with blunt undulations especially in lower part. The internal structure is pale yellow to citrine yellow and minutely chambered. Interestingly, *Royoungia boletoides* is a truffle relative of the boletes (mushrooms with a sponge-like tubular structure instead of gills). The Paruna collection provides a significant clue to this relationship - a clue hitherto not recorded in the scientific literature. The peridium (surface) of the Paruna truffles displayed a distinct blue colouration when handled or bruised. A similar blueing reaction occurs in many of the boletes. *Royoungia boletoides* was first discovered during expeditions in Queensland in the late 1980's and early 1990's (Castellano *et al.*, 1992). The Paruna collection is the first confirmed collection of this fungus in Western Australia. Three collections tentatively identified as *Royoungia* sp. from the Warren Region in south west WA (species no. WDP 10, Robinson *et al.*, 2007) have yet to be confirmed.





Golden Orbs (*Royoungia boletoides*) – the first confirmed collection of this truffle species in WA

Some of the fungi recorded in this survey remain unidentified pending further collections or more detailed comparative analyses. Many of the fungi could only be identified to genus level. This is because detailed taxonomic examinations are yet to be completed, or perhaps some are undescribed species. Far more fungi will occur at Paruna Wildlife Sanctuary than the 29 species recorded in this inaugural survey. Fewer fungi than may have been expected were found in the 2009 survey due to very dry weather conditions in the weeks preceding the survey. Because of the unpredictable nature of fungi fruiting, surveys need to be conducted over many years in order to capture the biodiversity of fungi present in any given area. Most of the fungi observed during this survey have tough, persistent fruit bodies, e.g. bracket fungi with a hard consistency such as *Fomitiporia robusta*. Only a few types of fleshy mushroom-like fungi were observed, e.g. *Psathyrella* sp. This indicates how dry conditions were at the time of survey. Fleshy fungi respond to rainfall and rapidly emerge. Their fruit bodies usually do not persist for long after rainfall. The main types of fleshy fungi observed during this survey were those that emerge from logs or substantial dead woody material, e.g. Gregarious Bells *Campanella gregaria*, or from dung, e.g. the Dung Cap *Psilocybe* *Psilocybe coprophila*. Presumably the logs or dung may have been able to retain some moisture within them during the dry conditions, and this enabled the wood-inhabiting and dung-inhabiting fungi to remain sufficiently active to enable fruiting to occur. No pathogenic fungi were observed during this survey, but it is likely that as many of them would occur at Paruna as occur elsewhere in similar areas. The lack of truffle collections aside from *Royoungia boletoides* obtained in this survey is not surprising due to the dry conditions and because the survey focussed on finding above-ground fungi. It is likely that many species of native truffles occur in the bushland at Paruna Wildlife Sanctuary such as is the case at the nearby Karakamia Wildlife Sanctuary (Bougher 2006) and other parts of the Darling Scarp.

## **Management recommendations for understanding and conserving the diversity and ecological functions of fungi at Paruna Wildlife Sanctuary**

Conservation of biodiversity and general interest in the Paruna Wildlife Sanctuary has primarily focussed on flora and fauna until recently. The major aims of Paruna Sanctuary (Paruna Sanctuary Ltd., Karakamia Sanctuary Ltd. (1998) include re-establishment of natural plant and animal communities and to contribute to recovery programs for WA's threatened wildlife species. Fungi directly interact with native plant and animal communities and therefore have significant roles to play in determining the success or otherwise of such aims. The bushland's Flora, Fauna and Fungi need to be considered together for future management of the bushland's long-term health. An increased level of knowledge about the fungi at Paruna Wildlife Sanctuary is required as a basis for documenting and understanding the fungi, and in turn for helping to manage and conserve the bushland's flora and fauna. Of particular interest at Paruna Wildlife Sanctuary is the need to understand the role of fungi as a food source for sustaining healthy populations of mycophagous (fungus-feeding) mammals such as woylies, quokkas and bandicoots.

Management recommendations involving fungi include:

- 1. Undertake biological surveys to build up an inventory of fungi and to monitor changes in relation to management and revegetation operations:** Broader surveys undertaken elsewhere in similar areas of woodlands and unpublished current studies suggest that many more fungi species occur in Paruna Wildlife Sanctuary than the 29 species recorded in the current survey. The fruiting of fungi is very weather dependent and one season will not provide sufficient data to document the fungi of any particular area. Due to the unpredictable nature of fungi fruiting, surveys need to be conducted over many years in order to capture the biodiversity of fungi present in any given area. Such inventory data may be used to classify fungi communities in the Paruna Wildlife Sanctuary, and may serve as a baseline for monitoring changes in biodiversity in the area, e.g. any trend towards changes in the diversity of significant ecological groups of fungi such as mycorrhizal truffle species, and the effects of major disturbances such as fire. It is also of significance to help determine if revegetation efforts have been successful at Paruna. By monitoring the diversity of fungi in revegetation over time, it becomes possible to determine if a diversity of native fungi approaching towards the diversity of the original vegetation is returning in revegetation areas.
- 2. Record comprehensive data on surveys:** (i) the identity of the fungi (ii) the main features of the fungi (including close-up photographs) (iii) habitat (in litter, on dead wood etc.) and (iv) plant species associated with each of the fungi. Standard recording sheets for fungi biodiversity surveys are available on request from PUBF (DEC Western Australian Herbarium), or from the website at [www.fungiperth.org.au](http://www.fungiperth.org.au).
- 3. Georeference the surveys:** It is desirable to georeference future surveys at Paruna Wildlife Sanctuary in order to build up a spatial map of distribution of individual fungi species. Such data can be overlain onto vegetation, soil and fire-age maps so as to potentially recognise associations between particular fungi and plants, or vegetation and landscape types. A georeferencing survey kit developed by John Weaver for PUBF is available on loan from the Western Australian Herbarium.
- 4. Involve community:** It is recommended that further fungi surveys, involving members of the local Avon community, be undertaken at the Paruna Wildlife Sanctuary. The involvement of local community members can facilitate a greater sampling effort, a general increase in awareness about fungi and their roles and linkages in bushlands, and a greater appreciation of the need to preserve bushland. Fungi surveys are well suited to annual involvement of Friends Groups and volunteers from the local community.
- 5. Determine the mycorrhizal plant partners of fungi.** Paruna Wildlife Sanctuary has a wide range of vegetation types that undoubtedly influence the presence, abundance and spatial

distribution of fungi species in the bushland. Vegetation-fungi patterns could be clarified if surveys of fungi were carried out annually over many years. To understand the beneficial mycorrhizal relationships between particular fungi and particular plants at the Paruna Wildlife Sanctuary, a list of known plants at the bushland should be annotated with the likely mycorrhizal status of each plant (e.g. categories such as, ectomycorrhizal, arbuscular, epacrid, orchid, and not mycorrhizal). This will help understanding of how the pattern of occurrence of various species of fungi relates to the distribution of vegetation types and mammals at Paruna Wildlife Sanctuary. Of particular significance at Paruna is to recognize that over 1,000 species of native truffles may occur in Australia (Bougher and Lebel 2001) and that all truffle fungi are considered to be mycorrhizal partners of native plants. There is need to better understand this truffle diversity, the patterns in their mycorrhizal relationships, and how they may impinge on the survival of local populations of mycophagous (fungus-feeding) mammals.

6. **Understand fungi-mammal interdependencies:** A number of mycophagous (fungus-feeding) mammals occur in the Avon Valley or are believed once present but now extinct in the region (Paruna Sanctuary Ltd., Karakamia Sanctuary Ltd. 1998). These include woylies, quokkas, and quendas (southern brown bandicoot). Translocation of such mammals into Paruna Wildlife Sanctuary is already being implemented (at least woylies) towards achieving one of Paruna's major aims – re-establishment of natural plant and animal communities and to contribute to recovery programs for WA's threatened wildlife species. Paruna may be a highly significant refuge for woylies as their populations have declined in many other areas (Wayne *et al.* 2006). Key questions involving fungi-mammal interdependencies that require investigation include: Which mammals use fungi as a food resource at Paruna? What species of fungi are consumed? How does the relationship change seasonally? To what degree do fungi contribute to and correlate with the health and size of mycophagous mammal populations? What are the plants associated in partnership with the mycorrhizal truffles? What is the diversity and abundance of fungi present at Paruna and how does it compare with other linkage and surrounding areas? Are suitable fungi present to sustain particular species of mammals targeted for current and future translocations into Paruna? Do translocated mammals rapidly find a diverse range of truffle fungi upon their translocation into Paruna? What could be the ecological consequences on bushland ecology if mammal populations expanded to a level that over-exploited the fungi?
7. **Include Flora, Fauna and Fungi in signage and interpretative material:** To promote public awareness and appreciation of the conspicuous and less conspicuous biodiversity at the Paruna Wildlife Sanctuary and the linkages between the 3Fs that influence the long-term health of the bushland.
8. **Support a strategy to preserve representative landscapes:** Support a management plan that aims to preserve a variety of natural vegetation types and the diversity of plant species within the types. Also preserve a diversity of fire ages, including at least some long unburnt patches if possible. This strategy will help retain a variety of microhabitats for fungi – e.g. specific components of wood (logs, banksia bark, twigs etc.), litter, moss beds and specific mycorrhizal partner plants. In turn, this strategy may foster fungi biodiversity which in turn may foster flora and fauna that interact with the fungi.

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**Table 1: Paruna Wildlife Sanctuary Fungi List: 14 June 2009**

**Life Mode** Key: M = Mycorrhizal, S = Saprotrophic (Decomposer), S/P = Saprotrophic and Parasitic. Life Mode allocation is based on probability only, as many fungi have not been tested.

**F map** = Fungimap Target: refers to species that have been selected by the Australia-wide mapping project, Fungimap, for collecting detailed records to be compiled into distribution maps.

See Fungimap on-line at [www.rbg.vic.gov.au/fungimap](http://www.rbg.vic.gov.au/fungimap), and the book *Fungi Down Under* by Grey, P. and Grey, E (2005).

**Page Num** refers to the page number in the south-west WA fungi book (Bougher 2009), which is available as a bound book, DVD, or for downloading from the PUBF website at [www.fungiperth.org.au](http://www.fungiperth.org.au)

Scientific Name	Common Name	Form	Habitat	Life Mode	F map	Page Num	Specimen ID
<i>Campanella gregaria</i>	<b>Gregarious Bells</b>	shell	dead wood	S		J-66	4069
<i>Ceratiomyxa fruticulosa</i>	<b>Icicle Fairy Fans</b>	slime mould	dead wood	S	Yes	Z-2	4030
<i>Coltriciella dependens</i>		mushroom	litter/ground	S		N-10	4031, 4040
<i>Fomitiporia robusta</i>	<b>Wood Layered Bracket Fungus</b>	bracket	dead wood	S		N-6	4038
<i>Fomitopsis lilacinogilva</i>	<b>Lilac Bracket Fungus</b>	bracket	dead wood	S		N-2	4037, 4061
<i>Fuligo septica</i>	<b>Dog Vomit Slime Mould</b>	slime mould	dead wood	S	Yes	Z-4	4044
<i>Hymenoscyphus sp.</i>		cup	dead wood	S			4043
<i>Hjortstamia crassa</i>	<b>Violet Skin Fungus</b>	resupinate	dead wood	S		O-10	4048, 4050
<i>Marasmius sp.</i>		mushroom	litter/ground	S			4034
<i>Phlebia sp.</i>		resupinate	dead wood	S			4028, 4032 4058, 4067 4071
<i>Pleurotellus sp.</i>		shell	dead wood	S			4033, 4042
<i>Poria sp.</i>		resupinate	dead wood	S			4051
<i>Psathyrella sp.</i>		mushroom	litter/ground	S			4045
<i>Psilocybe coprophila</i>	<b>Dung Cap Psilocybe</b>	mushroom	litter/ground	S		J-95	4056
<i>Psilocybe sp.</i>		mushroom	litter/ground	S			4062
<i>Pycnoporus coccineus</i>	<b>Scarlet Bracket Fungus</b>	bracket	dead wood	S		N-8	4068
<i>Royoungia boletoides</i>		truffle	underground	S			4049
<i>Schizophyllum commune</i>	<b>Split Gill Fungus</b>	shell	dead wood	S	Yes	R-2	4047
<i>Stereum illudens</i>	<b>Purplish Stereum</b>	bracket	dead wood	S		O-6	4036, 4060 4064
<i>Stereum sp.</i>		bracket	dead wood	S			4057
<i>Stropharia semiglobata</i>	<b>Dung</b>	mushroom	dung	S			4026, 4041



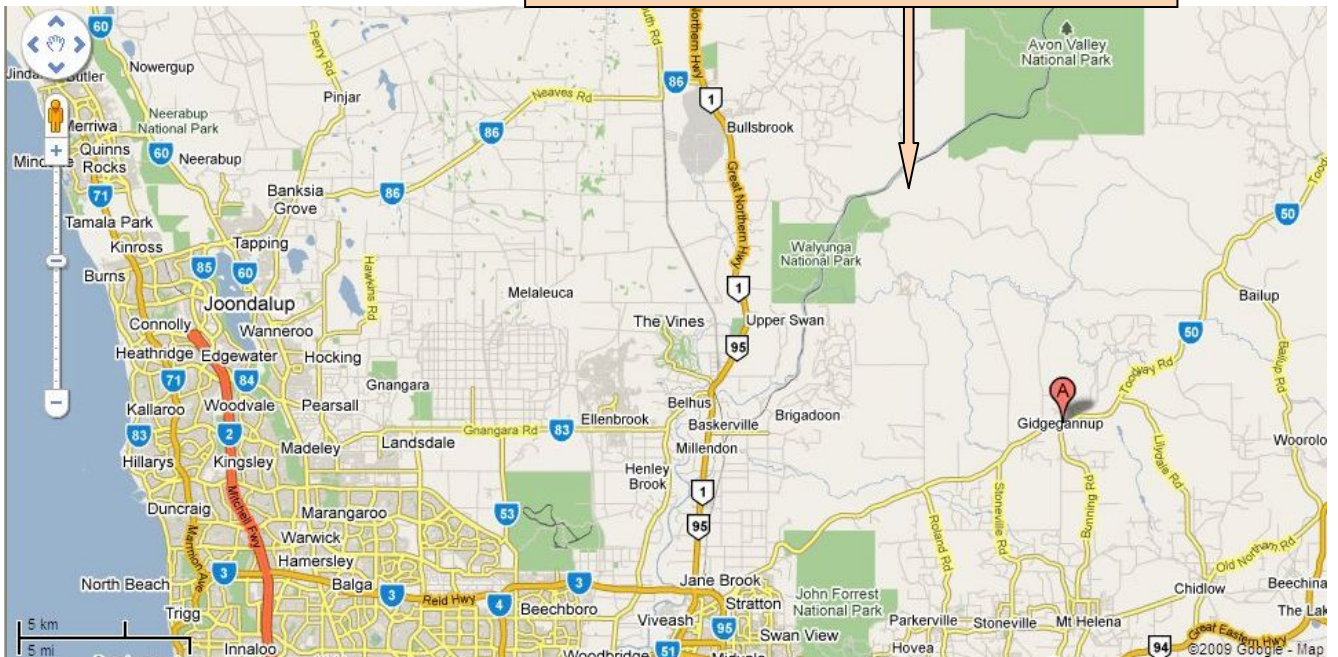
	<b>Roundheads</b>						4063, 4070
<i>Tomentella cf. pilosa</i>		resupinate	dead wood	M			4072
<b>Undetermined Agaric</b>		mushroom	litter/ground	?			4052, 4054
<b>Undetermined Jelly Fungus</b>		jelly	dead wood	S			4053
<b>Undetermined Myxomycete</b>	<b>Slime Mould</b>	slime mould	dead wood	S			4029, 4046
<b>Undetermined Polypore</b>		bracket	dead wood	S			4066
<b>Undetermined Resupinate</b>		resupinate	dead wood	S			4027, 4039 4065
<b>Undetermined Truffle</b>		truffle	litter/ground	M			4035
<b>Unknown</b>							4055, 4059

**Table 2 : Permanent Vouchered Specimens from Paruna Wildlife Sanctuary, 2009**

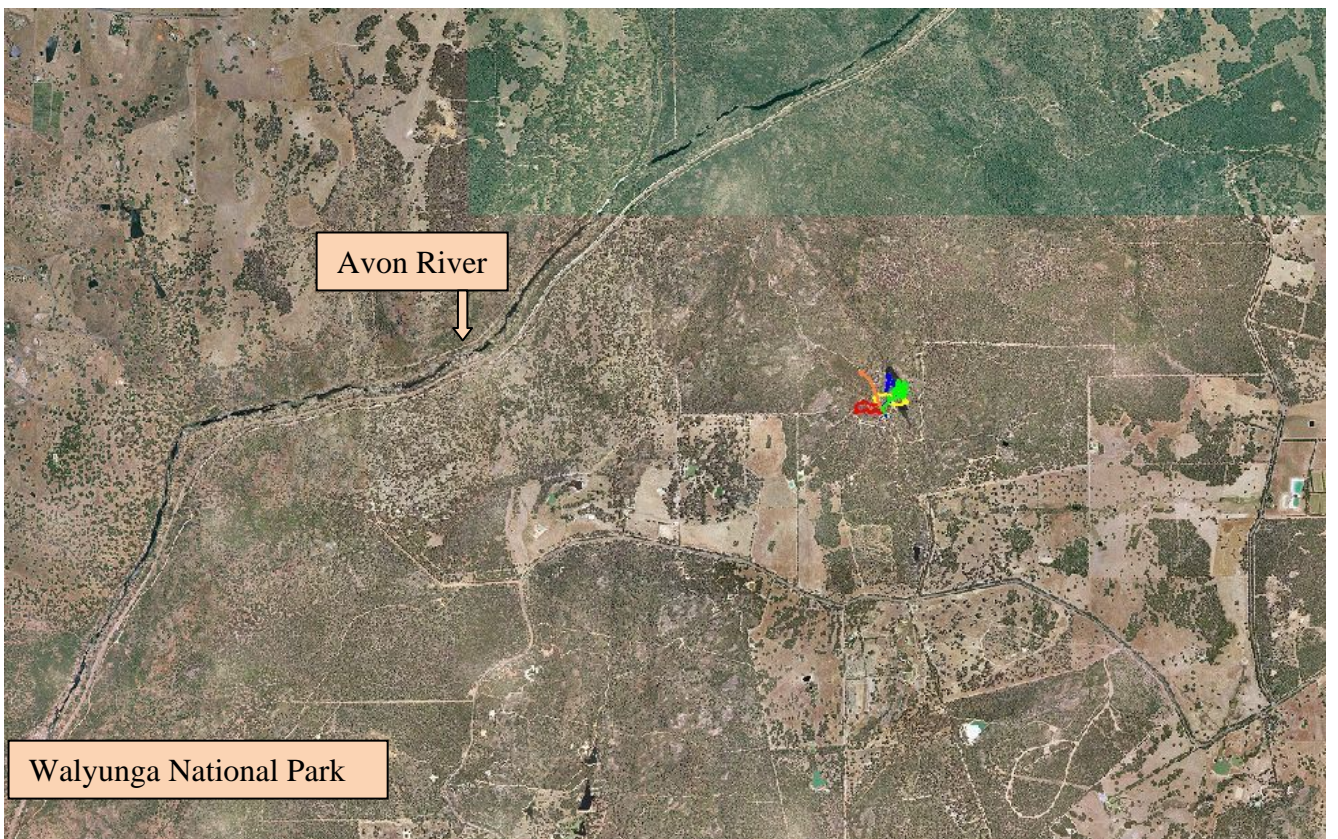
Seventeen of the fungi collected during this event were deposited into the Western Australian Herbarium with the following details:

<i>Campanella gregaria</i>	Voucher ID E9288	Specimen ID 4069
<i>Coltriciella dependens</i>	Voucher ID E9293	Specimen ID 4031
<i>Fomitopsis lilacinogilva</i>	Voucher ID E9283	Specimen ID 4061
<i>Hjortstamia crassa</i>	Voucher ID E9295	Specimen ID 4050
<i>Hymenoscyphus</i> sp.	Voucher ID E9297	Specimen ID 4043
<i>Phlebia</i> sp.	Voucher ID E9285	Specimen ID 4028
<i>Phlebia</i> sp.	Voucher ID E9284	Specimen ID 4032
<i>Pleurotellus</i> sp.	Voucher ID E9289	Specimen ID 4033
<i>Poria</i> sp.	Voucher ID E9291	Specimen ID 4051
<i>Psathyrella</i> sp.	Voucher ID E9292	Specimen ID 4045
<i>Pycnoporus coccineus</i>	Voucher ID E9287	Specimen ID 4068
<i>Royoungia boletoides</i>	Voucher ID E9299	Specimen ID 4049
<i>Schizophyllum commune</i>	Voucher ID E9290	Specimen ID 4047
<i>Stropharia semiglobata</i>	Voucher ID E9282	Specimen ID 4026
<i>Stropharia semiglobata</i>	Voucher ID E9286	Specimen ID 4041
<i>Tomentella cf. pilosa</i>	Voucher ID E9298	Specimen ID 4072
Undetermined Myxomycete	Voucher ID E9296	Specimen ID 4046

Paruna Wildlife Sanctuary links Walyunga National Park with the Avon Valley National Park along the Avon River



Google Map showing the location of Paruna Wildlife Sanctuary in the Perth Hills.



Aerial photo showing the colour coded tracks walked by the five groups on 14 June 2009.





**Georeferenced Tracks and Photos**

Mark Brundrett, Laurton McGurk and Derek Mead-Hunter’s group, 14 June 2009






The numbers on the coloured dots in the fungi photos correspond to the collecting number and usually **do not** match the photo number. It is the **photo number** preceding the fungus name which correlates with the site on the map above.

Event : Paruna Date 14/6/2009 Group Number: 259 Leaders Mark Brundrett, Laurton McGurk and Derek Mead-Hunter Photographer: Laurton McGurk		
	<b>09 <i>Stropharia semiglobata</i></b> On dung in marri/wandoo woodland Latitude: 31° 41' 43.9"South Longitude: 116° 8' 2.9"East 14/06/2009 <b>Vouchered WA Herbarium: E9282</b>	<b>Dung Roundheads</b> Specimen ID: 4026 Image: PA88_259LM09
	<b>10 Undetermined Resupinate</b> On dead marri wood in marri/wandoo woodland Latitude: 31° 41' 43.3"South Longitude: 116° 8' 2.8"East 14/06/2009	Specimen ID: 4027 Image: PA88_259LM10



	<p><b>18 <i>Phlebia</i> sp.</b></p> <p style="text-align: right;">Specimen ID: 4028</p> <p>On dead marri wood in marri/wandoo woodland Latitude: 31° 41' 43.5"South Longitude: 116° 8' 2.6"East 14/06/2009 Image: PA88_259LM18 <b>Vouchered WA Herbarium: E9285</b></p>
	<p><b>22 Undetermined Myxomycete</b>      <b>Slime Mould</b></p> <p style="text-align: right;">Specimen ID: 4029</p> <p>On dead wood Latitude: 31° 41' 45.1"South Longitude: 116° 8' 1"East 14/06/2009 Image: PA88_259LM22</p>
	<p><b>23 <i>Ceratiomyxa fruticulosa</i></b>      <b>Icicle Fairy Fans</b></p> <p style="text-align: right;">Specimen ID: 4030</p> <p>On dead marri wood in marri/wandoo woodland Latitude: 31° 41' 45.1"South Longitude: 116° 8' 1"East 14/06/2009 <b>Fungimap Target</b> Image: PA88_259LM23</p>
	<p><b>25 <i>Coltriciella dependens</i></b></p> <p style="text-align: right;">Specimen ID: 4031</p> <p>On dead grass tree in marri/wandoo woodland Latitude: 31° 41' 43.9"South Longitude: 116° 8' 1.6"East 14/06/2009 Image: PA88_259LM25 <b>Vouchered WA Herbarium: E9293</b></p>
	<p><b>28 <i>Phlebia</i> sp.</b></p> <p style="text-align: right;">Specimen ID: 4032</p> <p>On dead marri in marri/wandoo woodland Latitude: 31° 41' 43.9"South Longitude: 116° 8' 1.6"East 14/06/2009 Image: PA88_259LM28 <b>Vouchered WA Herbarium: E9284</b></p>
	<p><b>32 <i>Pleurotellus</i> sp.</b></p> <p style="text-align: right;">Specimen ID: 4033</p> <p>On dead marri in marri/wandoo woodland Latitude: 31° 41' 43.2"South Longitude: 116° 8' 1.7"East 14/06/2009 Image: PA88_259LM32 <b>Vouchered WA Herbarium: E9289</b></p>

	<p><b>35 <i>Marasmius</i> sp.</b></p> <p>Specimen ID: 4034</p> <p>On leaf litter in marri/wandoo woodland  Latitude: 31° 41' 42.6"South   Longitude: 116° 8' 1.6"East  14/06/2009   Image: PA88_259LM35</p>
	<p><b>37 Undetermined Truffle</b></p> <p>Specimen ID: 4035</p> <p>On dead wood under jarrah in marri/wandoo woodland  Latitude: 31° 41' 42.6"South   Longitude: 116° 8' 1.6"East  14/06/2009   Image: PA88_259LM37</p>
	<p><b>38 <i>Stereum illudens</i></b></p> <p><b>Purplish Stereum</b></p> <p>Specimen ID: 4036</p> <p>On dead eucalypt branch in marri/wandoo woodland  Latitude: 31° 41' 50.6"South   Longitude: 116° 8' .7"East  14/06/2009   Image: PA88_259LM38  <b>Vouchered WA Herbarium: E9281</b></p>



## Georeferenced Tracks and Photos

Kevn Griffiths and Phylis Robertson's group, 14 June 2009



The numbers on the coloured dots in the fungi photos correspond to the collecting number and usually **do not** match the photo number. It is the **photo number** preceding the fungus name which correlates with the site on the map above.

**Event: Paruna Date: 14/06/2009**

Group Number: 260 Leaders Kevn Griffiths and Phylis Robertson

Photographer: Phylis Robertson



02 *Fomitopsis lilacinogilva*

**Lilac Bracket Fungus**

Specimen ID: 4037

On dead marri wood in marri woodland

Latitude: 31° 41' 46.5"South Longitude: 116° 8' 1.8"East

14/06/2009

Image: PA88\_260PR02



04 *Fomitiporia robusta*

**Wood Layered  
Bracket Fungus**

Specimen ID: 4038

On dead wandoo wood in marri woodland

Latitude: 31° 41' 46.5"South Longitude: 116° 8' 2.9"East




14/06/2009

Image:

PA88\_260PR04



	<p><b>05 Undetermined Resupinate</b></p> <p>Specimen ID: 4039</p> <p>On dead wood in marri woodland  Latitude: 31° 41' 45.1"South Longitude: 116° 8' 2.9"East  14/06/2009 Image: PA88_260PR05</p>
	<p><b>06 Coltriciella dependens</b></p> <p>Specimen ID: 4040</p> <p>On dead marri wood in marri woodland  Latitude: 31° 41' 45.1"South Longitude: 116° 8' 2.9"East  14/06/2009 Image: PA88_260PR06</p>
	<p><b>07 Stropharia semiglobata</b></p> <p><b>Dung Roundheads</b></p> <p>Specimen ID: 4041</p> <p>On wallaby dung in marri woodland  Latitude: 31° 41' 45.1"South Longitude: 116° 8' 2.6"East  14/06/2009 Image: PA88_260PR07  <b>Vouchered WA Herbarium: E9286</b></p>
	<p><b>08 Pleurotellus sp.</b></p> <p>Specimen ID: 4042</p> <p>On marri bark in marri woodland  Latitude: 31° 41' 44.9"South Longitude: 116° 8' 2.7"East  14/06/2009 Image: PA88_260PR08</p>
	<p><b>09 Hymenoscyphus sp.</b></p> <p>Specimen ID: 4043</p> <p>On marri bark in marri woodland  Latitude: 31° 41' 44.9"South Longitude: 116° 8' 2.7"East  14/06/2009 Image: PA88_260PR09  <b>Vouchered WA Herbarium: E9297</b></p>
	<p><b>10 Fuligo septica</b></p> <p><b>Dog Vomit Slime Mould</b></p> <p>Specimen ID: 4044</p> <p>On dead, burnt marri wood in marri woodland  Latitude: 31° 41' 44.7"South Longitude: 116° 8' 4.3"East  14/06/2009 <b>Fungimap Target</b> Image: PA88_260PR10</p>

	<p>11 <i>Psathyrella</i> sp.</p> <p>Specimen ID: 4045</p> <p>On ground in clay mud at the edge of dam in marri woodland</p> <p>Latitude: 31° 41' 44.7"South Longitude: 116° 8' 4.7"East</p> <p>14/06/2009 Image: PA88_260PR11</p> <p>Vouchered WA Herbarium: E9292</p>
	<p>13 Undetermined Myxomycete</p> <p><b>Slime Mould</b></p> <p>Specimen ID: 4046</p> <p>On marri nut on the ground in marri woodland</p> <p>Latitude: 31° 41' 44.7"South Longitude: 116° 8' 4.7"East</p> <p>14/06/2009 Image: PA88_260PR13</p> <p>Vouchered WA Herbarium: E9296</p>
	<p>14 <i>Schizophyllum commune</i></p> <p><b>Split Gill Fungus</b></p> <p>Specimen ID: 4047</p> <p>On dead christmas tree in woodland</p> <p>Latitude: 31° 41' 45.7"South Longitude: 116° 8' 5.6"East</p> <p>14/06/2009 <b>Fungimap Target</b> Image: PA88_260PR14</p> <p>Vouchered WA Herbarium: E9290</p>
	<p>16 <i>Hjortstamia crassa</i></p> <p><b>Violet Skin Fungus</b></p> <p>Specimen ID: 4048</p> <p>On dead marri wood in marri woodland</p> <p>Latitude: 31° 41' 45.7"South Longitude: 116° 8' 5.2"East</p> <p>14/06/2009 Image: PA88_260PR16</p>
	<p>18 <i>Royoungia boletoides</i></p> <p><b>Golden Orb Truffle</b></p> <p>Specimen ID: 4049</p> <p>In litter in marri woodland</p> <p>Latitude: 31° 41' 45.6"South Longitude: 116° 8' 3.8"East</p> <p>14/06/2009 Image: PA88_260PR18</p> <p>Vouchered WA Herbarium: E9299</p>



## Georeferenced Tracks and Photos

Margaret Langley and Tanja Lambe's group, 14 June 2009



The numbers on the coloured dots in the fungi photos correspond to the collecting number and usually **do not** match the photo number. It is the **photo number** preceding the fungus name which correlates with the site on the map above.

**Event: Paruna Date: 14/06/2009**

Group Number: 261 Leaders Margaret Langley and Tanja Lambe

Photographer: Tanja Lambe



**07 *Hjortstamia crassa***

**Violet Skin Fungus**

Specimen ID: 4050

On dead wandoo branch in wandoo woodland

Latitude: 31° 41' 41.9"South Longitude: 116° 7' 56.1"East

14/06/2009

Image: PA88\_261TL07

Vouchered WA Herbarium: **E9295**



**08 *Poria* sp.**

Specimen ID: 4051

On dead wandoo branch in wandoo woodland

Latitude: 31° 41' 41.7"South Longitude: 116° 7' 55.8"East

14/06/2009

Image: PA88\_261TL08

Vouchered WA Herbarium: **E9291**



	<p><b>10 Undetermined Agaric</b></p> <p>Specimen ID: 4052</p> <p>On dead xanthorrhoea in wandoo woodland Latitude: 31° 41' 41.7"South Longitude: 116° 7' 56.1"East 14/06/2009 Image: PA88_261TL10</p>
	<p><b>11 Undetermined Jelly Fungus</b></p> <p>Specimen ID: 4053</p> <p>On dead xanthorrhoea in wandoo woodland Latitude: 31° 41' 41.7"South Longitude: 116° 7' 55.8"East 14/06/2009 Image: PA88_261TL11</p>
	<p><b>13 Undetermined Agaric</b></p> <p>Specimen ID: 4054</p> <p>On dead xanthorrhoea in wandoo woodland Latitude: 31° 41' 41.9"South Longitude: 116° 7' 55.7"East 14/06/2009 Image: PA88_261TL13</p>
	<p><b>15 Mycelium on dead wood</b></p> <p>Specimen ID: 4055</p> <p>On dead wood within litter in wandoo woodland Latitude: 31° 41' 41.7"South Longitude: 116° 7' 55.5"East 14/06/2009 Image: PA88_261TL15</p>
	<p><b>16 <i>Psilocybe coprophila</i></b></p> <p><b>Dung Cap Psilocybe</b></p> <p>Specimen ID: 4056</p> <p>On dung in wandoo woodland Latitude: 31° 41' 41.7"South Longitude: 116° 7' 55.6"East 14/06/2009 Image: PA88_261TL16</p>
	<p><b>17 <i>Stereum</i> sp.</b></p> <p>Specimen ID: 4057</p> <p>On dead wandoo wood in wandoo woodland Latitude: 31° 41' 41.5"South Longitude: 116° 7' 55.5"East 14/06/2009 Image: PA88_261TL17</p>



## Georeferenced Tracks and Photos

Joe Froudist and Kirsten Tullis's group, 14 June 2009



The numbers on the coloured dots in the fungi photos correspond to the collecting number and usually **do not** match the photo number. It is the **photo number** preceding the fungus name which correlates with the site on the map above.

Event: Paruna Date: 14/06/2009

Group Number: 262 Leaders Joe Froudist and Kirsten Tullis

Photographer: Kirsten Tullis



06 *Phlebia* sp.

Specimen ID: 4058

On dead wood in wandoo/jarrah woodland

Latitude: 31° 41' 48.8"South Longitude: 116° 7' 59.2"East

14/06/2009

Image: PA88\_262KT06



07 Unknown

Specimen ID: 4059

On dead wood in wandoo/jarrah woodland

Latitude: 31° 41' 48.8"South Longitude: 116° 7' 59.2"East

14/06/2009

Image: PA88\_262KT07



	<p>08 <i>Stereum illudens</i></p> <p><b>Purplish Stereum</b> Specimen ID: 4060</p> <p>On dead wood in wandoo/jarrah woodland Latitude: 31° 41' 48.7"South Longitude: 116° 7' 49.4"East 14/06/2009 Image: PA88_262KT08</p>
	<p>10 <i>Fomitopsis lilacinogilva</i></p> <p><b>Lilac Bracket Fungus</b> Specimen ID: 4061</p> <p>On dead wood in marri/wandoo woodland Latitude: 31° 41' 48.5"South Longitude: 116° 7' 58.9"East 14/06/2009 Image: PA88_262KT10 <b>Vouchered WA Herbarium: E9283</b></p>
	<p>11 <i>Psilocybe</i> sp.</p> <p>Specimen ID: 4062</p> <p>Within litter in marri woodland with hakea, dryandra, balga and marri. Latitude: 31° 41' 48.3"South Longitude: 116° 7' 58.6"East 14/06/2009 Image: PA88_262KT11</p>
	<p>16 <i>Stropharia semiglobata</i></p> <p><b>Dung Roundheads</b> Specimen ID: 4063</p> <p>On old poo in wandoo woodland Latitude: 31° 41' 49"South Longitude: 116° 7' 55.6"East 14/06/2009 Image: PA88_262KT16</p>
	<p>17 <i>Stereum illudens</i></p> <p><b>Purplish Stereum</b> Specimen ID: 4064</p> <p>On dead wood in marri woodland with hakea and zamia. Latitude: 31° 41' 47.5"South Longitude: 116° 7' 54.7"East 14/06/2009 Image: PA88_262KT17</p>



## Georeferenced Tracks and Photos

Roz Hart and Jolanda Keeble's group, 14 June 2009



The numbers on the coloured dots in the fungi photos correspond to the collecting number and usually **do not** match the photo number. It is the **photo number** preceding the fungus name which correlates with the site on the map above.

**Event: Paruna Date: 14/06/2009**

Group Number: 263 Leaders Roz Hart and Jolanda Keeble

Photographer: Roz Hart



### **10 Undetermined Resupinate**

Specimen ID: 4065

On dead wood in wandoo woodland

Latitude: 31° 41' 46.2"South Longitude: 116° 7' 58.3"East

14/06/2009

Image: PA88\_263RH10



### **11 Undetermined Polypore**

Specimen ID: 4066

On dead wood in wandoo woodland

Latitude: 31° 41' 46.2"South Longitude: 116° 7' 58.3"East

14/06/2009

Image: PA88\_263RH11



	<p>14 <i>Phlebia</i> sp.</p> <p>Specimen ID: 4067</p> <p>On dead wood in marri woodland Latitude: 31° 41' 45.9"South Longitude: 116° 8' .2"East 14/06/2009 Image: PA88_263RH14</p>
	<p>17 <i>Pycnoporus coccineus</i></p> <p><b>Scarlet Bracket Fungus</b> Specimen ID: 4068</p> <p>On dead wood in wandoo/marri woodland Latitude: 31° 41' 45.9"South Longitude: 116° 8' .2"East 14/06/2009 Image: PA88_263RH17 <b>Vouchered WA Herbarium: E9287</b></p>
	<p>18 <i>Campanella gregaria</i></p> <p><b>Gregarious Shells</b> Specimen ID: 4069</p> <p>On dead wood in marri woodland Latitude: 31° 41' 45.7"South Longitude: 116° 8' 3.4"East 14/06/2009 Image: PA88_263RH18 <b>Vouchered WA Herbarium: E9288</b></p>
	<p>25 <i>Stropharia semiglobata</i></p> <p><b>Dung Roundheads</b> Specimen ID: 4070</p> <p>On dung in wandoo/marri woodland Latitude: 31° 41' 46.3"South Longitude: 116° 8' 5"East 14/06/2009 Image: PA88_263RH25</p>
	<p>30 <i>Phlebia</i> sp.</p> <p>Specimen ID: 4071</p> <p>On a dead grastree stump in wandoo/marri woodland Latitude: 31° 41' 46.6"South Longitude: 116° 8' 5.2"East 14/06/2009 Image: PA88_263RH30</p>
	<p>31 <i>Tomentella cf. pilosa</i></p> <p>Specimen ID: 4072</p> <p>Inside bark on dead wood in wandoo/marri woodland Latitude: 31° 41' 45.7"South Longitude: 116° 8' 3.4"East 14/06/2009 Image: PA88_263RH31 <b>Vouchered WA Herbarium: E9298</b></p>