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# Hollow Log Homes

Nest Box Audit

Port Of Brisbane Authority

Pritchard Road, Wynnum North Road,

September 9<sup>th</sup> 2015

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Gould's wattled bat

*Chalinolobus gouldii*

Box number 25

Pritchard Road

# 1.Summary

## 1.1Pritchard Road Buffer Zone: 33 Boxes

**Date of Installation:** 4th of June 2008

5 new boxes installed 7<sup>th</sup> of August 2013

**Date of previous audits:** 27th of January 2010, 23rd of March 2011, 24<sup>th</sup> of January 2012, 31<sup>st</sup> January 2013, 27<sup>th</sup> August 2014

**Date of Current Audit:** 9<sup>th</sup> September 2015

**Native species present:** 13 mammal species

**Box usage by native species:** Overall 25 boxes (75%)

**Boxes with native species present:** 13 boxes (39%)

Squirrel Glider (4 colonies), Possums, (9 animals) micro bats ( 1 colony)



Box 52. Squirrel Glider colony.

Box Type	Small Parrot	Boobook Owl	Owlet Night jar	Wood duck	Possum	Glider	Microbat
Number Installed	4	2	3	2	5	9	8

## 1.2Wynnum North Road, 18 Boxes

**Date of Installation:** 4th of June 2008

**Date of previous audits:** 27th of January 2010, 23rd of March 2011, 24<sup>th</sup> of January 2012, 31<sup>st</sup> January 2013, 27<sup>th</sup> August 2014

**Date of Current Audit:** 9<sup>th</sup> September 2015

**Native species present:** 4 mammal, 1 insect

**Box usage by native species:** Overall 13 boxes (72%)

**Boxes with native species present:** 5 boxes, (28%)

Possum,(5 animals),Native bees,(1 hive)



Box 44. Common Brushtail Possum with young.

Box Type	Small Parrot	Boobook Owl	Owlet Night jar	Wood duck	Possum	Glider	Microbat
Number Installed	4	1	2	1	1	5	4



## 2. Discussion

### 2.1 Pritchard Road Buffer Zone

This year we have developed a new auditing method which eliminates the use of ladders. A camera on the end of an extendable pole (up to 4.8 meters) and the use of a blue tooth controller means we are able to inspect the nest boxes without ladders, minimizing the disturbance to the animals. The number of native animals present this year is the highest recorded on this site to date with 13 boxes, compared to the second highest of 11 in January 2013. Glider colonies have remained constant over the last 12 months with 5 boxes showing signs of recent use and with a record of 4 Glider colonies. The common Brushtail Possums population has increased from 4 animals recorded in August 2014 to 9 animals in September 2015. With 3 boxes showing signs of recent use (one also used by Wood Ducks) and 8 boxes with the animals present (box #49 had a mother and 1 young). The micro bat colony that were using box number 12 in August 2014 were in box number 25 at this audit and have been identified as the Gould's Wattled bat. There are a total of 3 boxes showing evidence of use by the Micro bats. An Owlet nightjar box #03 and a Parrot box #20 have Micro bat droppings and a Micro bat box with significant staining at entrance hole which is consistent of Micro bat use. There were no evidence of feral species at time of audit with one exception with box 13 containing an abandoned feral bee hive which Gliders have taken over and built a fresh eucalyptus leaf nest in. Box # 21 needs replacing and there were 4 boxes which need new lids, 3 of which had Common Brushtail possums present and the other one had evidence of use by possum.



Box 49. Common Brushtail Possum with young. No Lid.



Box 09. Squirrel Glider colony.



Box 03. Micro bat droppings in an Owlet Nightjar box.



## 2.2 Wynnum North Road

The activity at this site is still fairly consistent with the previous years. The native bee hive that was first observed in 2009 is still going strong. There were no colonies of Gliders present at time of audit but 5 boxes have Glider nests in them. Common Brushtail Possums are up this year with 5 animals in 4 boxes (box #44 with mother and young) and 3 boxes with evidence of use by Common Brushtail Possums. Box #30 which is a Possum box could not be located. There were 6 boxes with no lids, 2 with a Common Brushtail Possum present, 2 which have been used by Possums and 2 with old Glider nests. Often Possums will damage lids by entering through the top of a box if the entrance hole is too small. Hollow Log Homes have started reinforcing the lid to prevent this from happening, minimizing maintenance on nest boxes. Box #40 and box #42 both need replacing with box #42 having a very fresh Gliders nest in it. No feral animals were observed in the nest boxes at this site during this audit. Access was good to all boxes this year .



Box 39. Common Brushtail Possum.



Box 42. Fresh eucalyptus leaves indicating recent use by Gliders. Box needs replacing outside bottom of the box is in disrepair.



Box 38. Previously used by Gliders but has been recently used by Possums with contents of the box flattened and pushed aside and a strong smell. No lid.

## 3. Tables

### 3.1 Native Species Mentioned

Common name	Scientific Name
Squirrel Glider	<i>Petaurus norfolcensis</i>
Common Brushtail Possum	<i>Trichasourus vulpecular</i>
Goulds wattled Bat	<i>Chalinolobus gouldii</i>
Native Bee	<i>Trigona carbonaria</i>
Wood Duck	<i>Chenonetta jubata</i>
Rainbow Lorrikeet	<i>Trichoglossus haematodus</i>

### 3.2 Box Usage # indicates dual occupancy

Park	Species	Boxes with animals present	Boxes with evidence of use
Pritchard Road	Squirrel glider	01, 04, 09, 52	13, 17, 23, 29, 51
	Micro bat	25	03, 20, 27
	Brushtail possum	02, 08, 10, 11, 19, 24, 49, 53	7, #14, 50
	Rainbow Lorrikeet		16
	Wood Duck		#14
Wynnum Road North	Squirrel glider		31, 35, 42, 46, 47
	Brushtail possum	39, 41, 44, 48	36, 37, 38
	Native bees	34	



### 3.3 Habits, Signs and Identification of Native Fauna in Nest Boxes

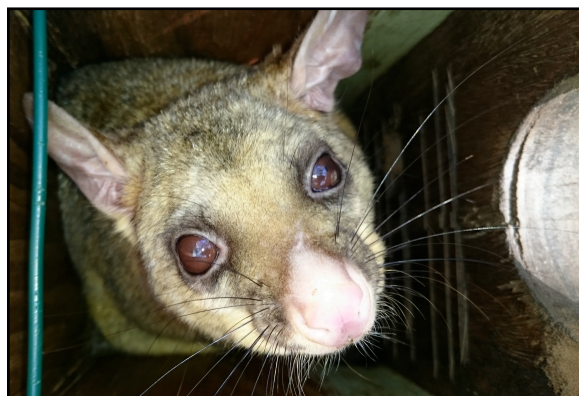
3.3.1 Common Name	Scientific Name	Status	Total Boxes used	No. Of animals present
Common Brushtail Possum	<i>Trichasourus vulpecular</i>	Common	18	14

**Habits:** Will use between 2 - 40 nest holes within home range.

**Indications:** Hair caught around entrance hole, wood shavings flattened and often pushed aside or not present, polishing of entrance hole, bite marks around entrance, strong smell.



Box 50. Evidence of use by Possum.



Box 02. Possums will often use boxes missing lids, same as an open hollow in the natural environment.

3.3.2 Common Name	Scientific Name	Status	Total Boxes used	# Boxes with animals present
Squirrel Gliders	<i>Petaurus norfolcensis</i>	Common	14	4

**Habits:** Each colony will use up to five nest holes. Colonies are loosely family based with up to 12 Gliders in each colony, usually with 3-5 individuals using one nest hole.

**Indications:** Nest hole lined with eucalyptus leaves, in winter time one favorite nest hole may be full to the top of leaves; hair caught in entrance hole; fine scratches on tree above 1 metre and box sides and lid. Shelter holes within feeding areas are often apparent, these will not be lined with leaves but will have scratches on lid and sides and often hair caught in hole. These shelter boxes may become nest holes at a later stage. Bottom opening bat boxes are sometimes used as shelter boxes.



Box 51. Fresh eucalyptus leaves indicating recent use by Gliders.



Box 01. Gliders in a winters nest.

3.3.3 Common Name	Scientific Name	Status	Total Boxes used	# Boxes with animals present
Gould's Wattled bat	<i>Chalinolobus gouldii</i>	Common	4	1

**Habits:** Micro bats will often change their roost sites nightly. Boxes may also be used for shelter as they digest their food throughout the night.

**Indications:** In boxes with bases, droppings are often visible, these droppings will be very friable and full of insect remains. Staining at the entrance hole is often a further indication of micro bat use.

3.3.4 Common Name	Scientific Name	Status	Total Boxes used	# Boxes with animals present
Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	Common	1	0

**Habits:** Has been known to nest all year round, usually lays two white eggs,

**Indications:** Green/red/yellow/grey down in box, moist smelly droppings, entrance hole often chewed. If gliders have placed leaves in box prior to birds nesting these will be chewed to little pieces.



Box 16. Rainbow Lorikeet Feathers and egg shell fragments. In previous years this box has had successful nestings of Rainbow Lorikeets.

3.3.5 Common Name	Scientific Name	Status	Total Boxes used	# Boxes with animals present
Australian Wood duck	<i>Chenonetta jubata</i>	Common	1	0

**Habits:** Has been known to nest in most months of the year, up to 12 large white eggs. Ducklings jump from nest hole within 24 hours of hatching.

**Indications:** Copious amounts of soft grey down , small eggshell fragments .

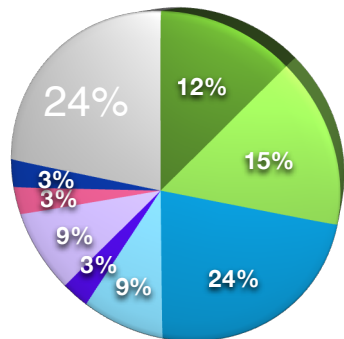
Box 14. This box in previous years has been used by Possums but more recently there is copious amounts of soft grey down indicating recent use by Wood ducks.



## 4.Result Graphs

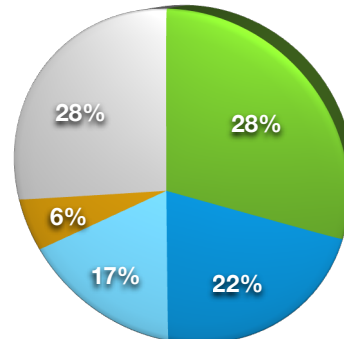
### 4.1 Habitation Rates 2015

4.1.1 Pritchard Road



- Glider colony - 4 boxes
- Glider nest - 5 boxes
- Possum - 8 boxes
- Possum den - 3 boxes
- Micro bat colony - 1 box
- Micro bat use - 3 boxes
- Rainbow Lorikeet use - 1 box
- Wood duck use - 1 box
- No signs - 8 boxes

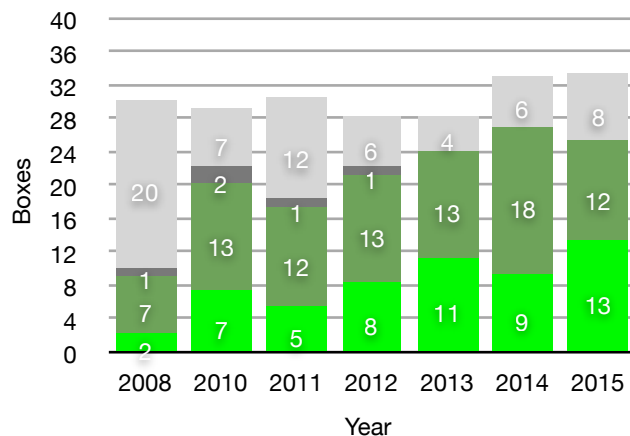
4.1.2 Wynnum North Road



- Glider nest - 5 boxes
- Possum - 4 boxes
- Possum den - 3 boxes
- Native bees - 1 box
- No sign - 5 boxes

### 4.2 Habitation Rates 2008 - 2015

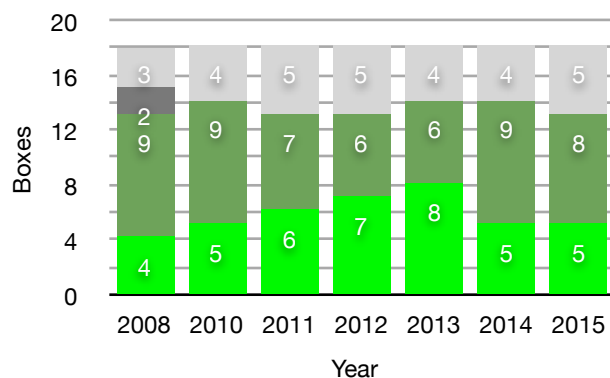
4.3.1 Pritchard Road



Key

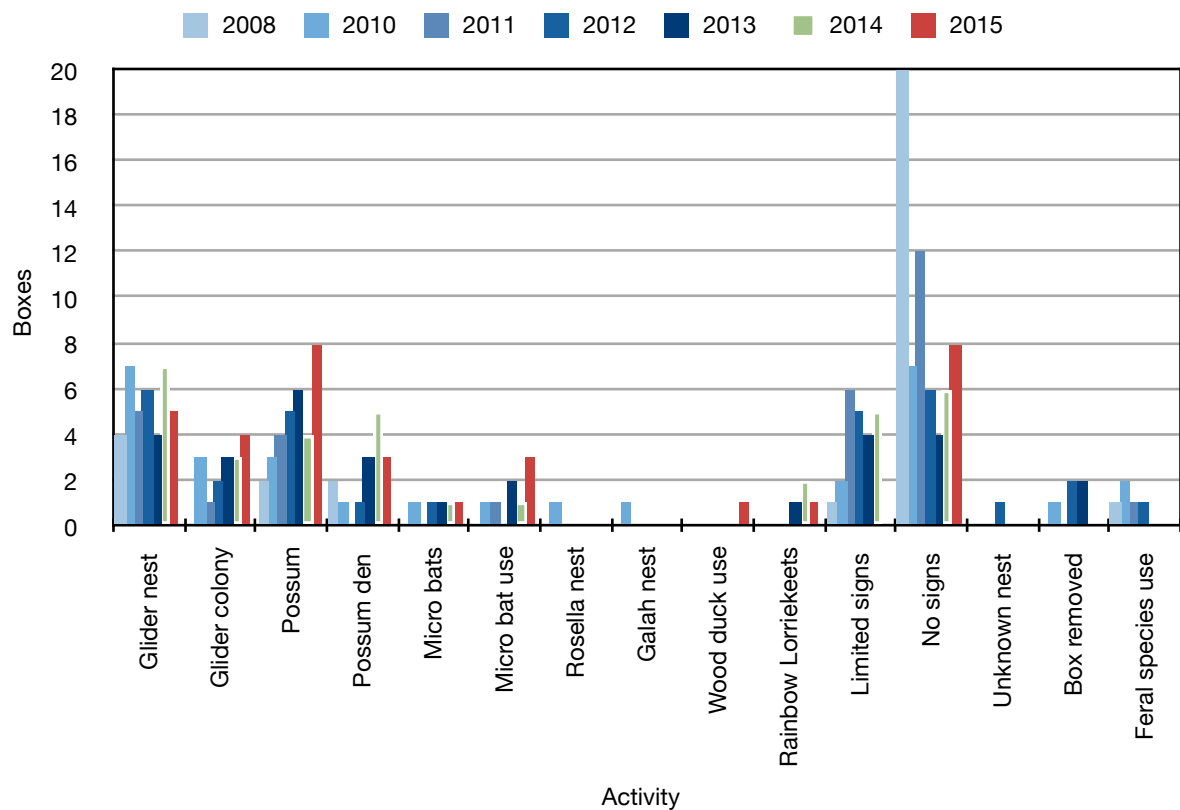
- no activity
- feral animal activity
- signs of native animal activity
- native animals present

4.3.2 Wynnum North Road

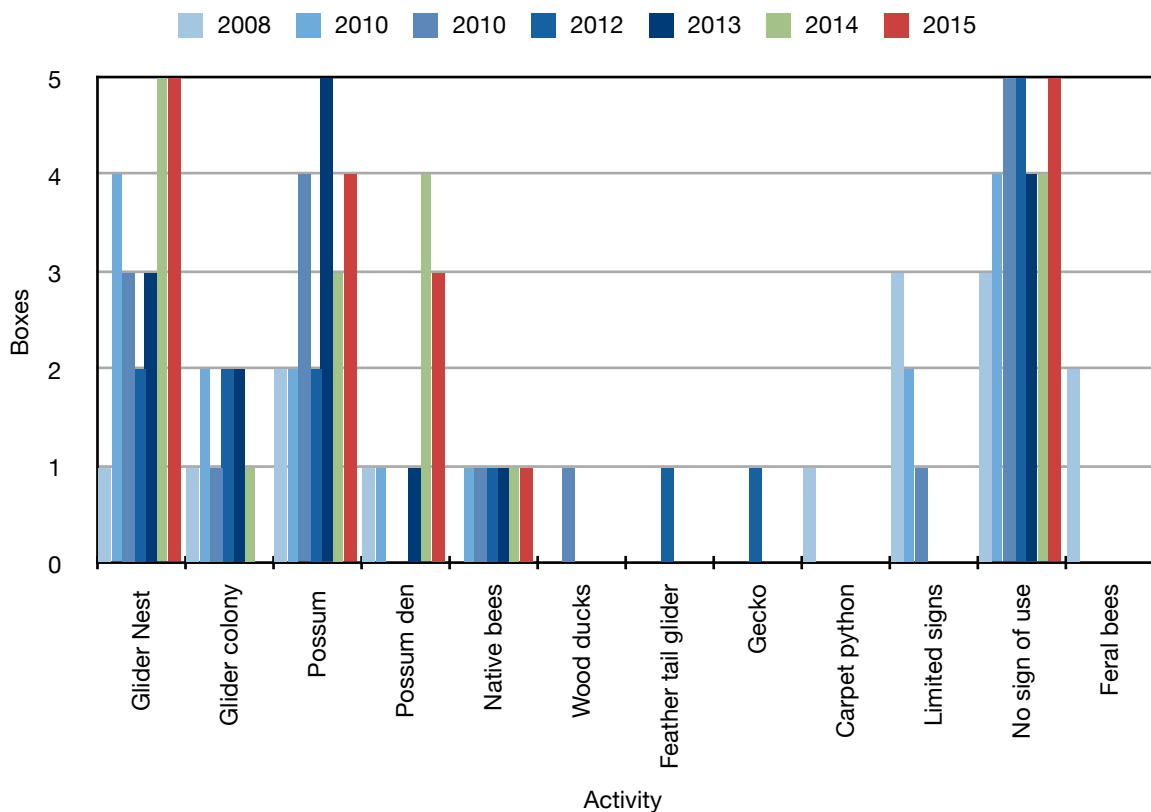




#### 4.3.1 Activity: Pritchard Road 2008-2015



#### 4.3.2 Activity : Wynnum Road North 2008-2015



## 4.4 Overview of Individual Nest Box Use 2008 - 2015

### Key

No signs	Glider nest	Glider colony	Possum den	Possum	Rainbow Lorriekest nest	Native Bees	Carpet Python	Feral species	Bats	Bat use	Galah nest	Rosella nest	Wood ducks

### 4.4.1 Pritchard Road

Box number & type	2008	2010	2011	2012	2013	2014	2015
1 Glider			ants	ants			
2 Parrot			ants				needs lid
3 ONJ		moved box	ants	moved box	ants	new lid	micro bat droppings
4 Glider		feral bees					
5 Bat							
6 ONJ			ants		ants	lid chewed	ants
7 Parrot	moved box	hole chewed	moved box	ants		needs new lid	needs lid
8 Boobook				2 possums			needs lid
9 Glider			ants		ants		
10 Parrot				unknown nest		needs new lid	needs lid
11 Boobook				2 possums			
12 Bat				ants			
13 Glider			ants				old bee hive
14 Possum		2 possums					+ WD down
15 Bat							
16 ONJ				ants	ants		
17 Glider			ants	ants			
18 Bat				ants			
19 Wood duck							
20 Parrot	droppings on lid			hole chewed	ants	also gliders nest	micro bat droppings
21 Possum	2 possums	2 possums		2 possums			needs replacing
22 Bat			ants	ants			
23 Glider							
24 Wood duck			tree fallen				
25 Bat			replaced boxes				
26 Bat				ants			
27 Bat							
28 Bat							
29 Glider							
49 Possum							2 possums
50 Possum							
51 Glider							
52 Glider							
53 Possum							

## Key

No signs	Glider nest	Glider colony	Possum den	Possum	Rainbow Lorrikeet nest	Native Bees	Carpet Python	Feral species	Bats	Bat use	Galah nest	Rosella nest	Wood ducks

### 4.4.2 Wynnum Road North

Box number & type	2008	2010	2011	2012	2013	2014	2015
30 Possum							N/A
31 Glider			feral bees	ants		ants	
32 Bat							
33 Bat				FTG			
34 ONJ	feral bees						
35 Glider				box repaired			
36 Glider					feral bees	needs new lid	needs lid
37 Possum	2 possums		ants				
38 Glider							needs lid
39 Wood duck							
40 Boobook	2 possums						needs replacing
41 Glider	feral bees						needs lid
42 ONJ							needs replacing
43 Bat							
44 Parrot	chewed hole		feral bees	chewed hole			2 possums
45 Bat							
46 Parrot	chewed hole		chewed hole	ants			needs lid
47 Parrot	chewed hole	chewed hole	ants	chewed hole			needs lid
48 Parrot	chewed hole	chewed hole		chewed hole		needs new lid	needs lid



## 5. Field Notes

### 5.1 Pritchard Road

Box Number	Box Type	GPS Co-ordinates		Observations 2015
POB01	Glider	S27 25.558	E153 09.558	Squirrel glider colony
POB02	Parrot	S27 25.563	E153 09.561	Common Brushtail Possum, needs new lid
POB03	Owlet	S27 25.557	E153 09.568	Micro bat droppings
POB04	Glider	S27 25.549	E153 09.569	Squirrel glider colony
POB05	Bat	S27 25.569	E153 09.578	No sign of recent habitation however no cobwebs over entrance hole
POB06	Owlet	S27 25.559	E153 09.589	Ant colony, sprayed box with a mixture of eucalyptus and pyrethrum
POB07	Parrot	S27 25.554	E153 09.582	Evidence of use by possum, needs new lid
POB08	Boobook owl	S27 25.563	E153 09.588	Common Brushtail possum, needs new lid
POB09	Glider	S27 25.560	E153 09.581	Squirrel glider colony
POB10	Parrot	S27 25.558	E153 09.593	Common Brushtail possum, needs new lid
POB11	Boobook owl	S27 25.562	E153 09.599	Common Brushtail possum
POB12	Bat	S27 25.563	E153 09.580	No sign of recent habitation
POB13	Glider	S27 25.565	E153 09.593	Old European Bee hive with a fresh gliders nest
POB14	Possum	S27 25.561	E153 09.600	Evidence of use by possum and Wood Duck down
POB15	Bat	S27 25.561	E153 09.600	No sign of recent habitation however no cobwebs over entrance hole
POB16	Owlet	S27 25.568	E153 09.609	Lorrikeet Feathers
POB17	Glider	S27 25.565	E153 09.605	Eucalyptus leaves indicating use by gliders
POB18	Bat	S27 25.571	E153 09.620	No sign of recent habitation however no cobwebs over entrance hole
POB19	Wood Duck	S27 25.572	E153 09.629	Common Brushtail possum
POB20	Parrot	S27 25.568	E153 09.632	Micro bat droppings
POB21	Possum	S27 25.578	E153 09.649	Needs Replacing
POB22	Bat	S27 25.579	E153 09.648	No sign of recent habitation however no cobwebs over entrance hole
POB23	Glider	S27 25.577	E153 09.632	Eucalyptus Leaves indicating use by gliders
POB24	Wood Duck	S27 25.578	E153 09.653	Common Brushtail possum
POB25	Bat	S27 25.580	E153 09.645	Colony of Gould's Wattled Bat
POB26	Bat	S27 25.575	E153 09.668	No sign of recent habitation
POB27	Bat	S27 25.575	E153 09.668	Staining at entrance hole consistent with micro bat use
POB29	Glider	S27 25.566	E153 09.617	Eucalyptus leaves indicating use by gliders

## 5.2 Wynnum North Road

Box Number	Box Type	GPS Co-ordinates		Observations 2015
POB30	Possum	S27 25.395	E153 09.873	Could not locate
POB31	Glider	S27 25.401	E153 09.898	Old eucalyptus leaves indicating use by gliders
POB32	Bat	S27 25.402	E153 09.898	No sign of recent habitation however no cobwebs over entrance hole
POB33	Bat	S27 25.384	E153 09.900	No sign of recent habitation however no cobwebs over entrance hole
POB34	Owlet	S27 25.390	E153 09.885	Native Bee hive
POB35	Glider	S27 25.388	E153 09.884	Fresh eucalyptus leaves indicating recent use by gliders
POB36	Glider	S27 25.390	E153 09.877	Common Brushtail possum, needs new lid
POB37	Possum	S27 25.395	E153 09.873	Evidence of use by possum
POB38	Glider	S27 25.392	E153 09.885	Evidence of use by possum, needs new lid
POB39	Wood Duck	S27 25.393	E153 09.887	Common Brushtail possum
POB40	Boobook	S27 25.395	E153 09.871	Needs replacing
POB41	Glider	S27 25.396	E153 09.872	Common Brushtail possum, needs new lid
POB42	Owlet	S27 25.402	E153 09.863	Fresh eucalyptus leaves indicating recent use by gliders, box needs replacing
POB43	Bat	S27 25.420	E153 09.854	No sign of recent habitation however no cobwebs over entrance hole
POB44	Parrot	S27 25.423	E153 09.905	Common Brushtail possum + 1 young, needs new lid
POB45	Bat	S27 25.423	E153 09.905	No sign of recent habitation
POB46	Parrot	S27 25.425	E153 09.887	Eucalyptus leaves indicating use by gliders, needs new lid
POB47	Parrot	S27 25.418	E153 09.889	Eucalyptus leaves indicating use by gliders, needs new lid
POB48	Parrot	S27 25.398	E153 09.904	Common Brushtail possum, needs new lid

## 6. Photos



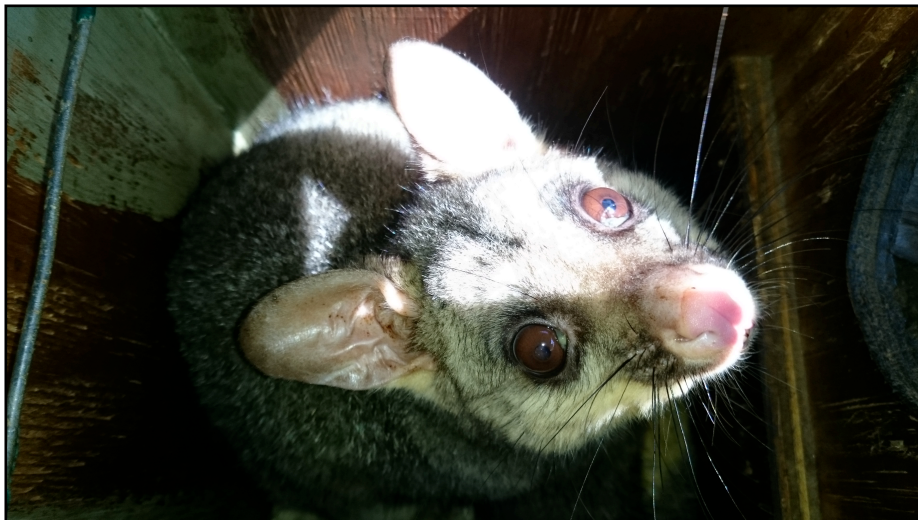
Box 04. Squirrel Glider colony.



Box 08. Common Brushtail possum. No lid.



Box 23. Fresh eucalyptus leaves indicating recent use by Gliders.



Box 11. Common Brushtail possum.





Box 52. Squirrel Glider colony.



Box 53. Common Brushtail possum.



Box 20. Micro bat droppings in a Parrot box.