

Overview of Nocturnal Mammal Survey

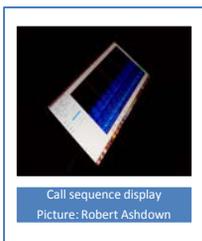
During 2014-15 the Citizens of the Lockyer undertook a survey of small nocturnal mammals, focusing on microchiropteran (insectivorous) bats, with the assistance of the Community Environmental Grants. The survey was conducted by ecologist Rod Hobson with assistance from Dr Bruce Thomson.

The survey of the microchiropteran bats was conducted utilising an acoustic sound recording equipment and its associated software. With each bat species having its own echolocation (sound pulse) call, in a sound range above the hearing of humans, Dr Thomson was able to record and identify the different species of bats.

Twenty-four species of mammals were recorded during the 2014-15 survey, with some of these records being through incidental sightings. Of these recorded species seven were bats. These bats included microchiropteran (insectivorous bats) as well as megachiroptera (flying-foxes).

Species recorded during the survey included:

- Ride’s Free-tailed Bat
- White-striped Free-tailed Bat
- Koala
- Sugar Glider
- Grey-headed Flying-fox
- Squirrel Glider
- Brushtail Possum
- Fawn-footed Melomys
- Yellow-bellied Sheath-tailed Bat
- Long-nosed Bandicoot
- Northern Brown Bandicoot
- Short-eared Brushtailed Possum
- Southern Forest Bat
- Little Bent-winged Bat
- Lesser Long-eared Bat / Gouid’s Long-eared Bat
- Central-eastern Broad-nosed Bat
- Eastern Cave Bat/ Little Forest Bat



Since 2008 the total number of bat species recorded in the Western Lockyer region are 13. This represents half of the known bat species in SEQ. The sighting of the Long-nosed Potoroo was also a significant recording. This Potoroo is a new record for the area and is currently listed as Vulnerable under state legislation. The Whiptail Wallaby is also significant as though it is once widespread across the Lockyer Valley it is now confined and small and isolated areas of the upper catchment.

Further information about the survey can be obtained by contacting the Environment Officer.

Overview of the Upper Lockyer Valley Invertebrate Fauna Survey

During 2014-15 the Citizens of the Lockyer undertook a survey of the invertebrate fauna in the upper Lockyer Valley. This survey built on knowledge gained through a previous survey on invertebrate fauna. The survey was undertaken by ecologist Rod Hobson with the assistance of Dr Chris Burwell, Dr Geoff Monteith and Wesley Jenkinson. Invertebrates are the foundation of a healthy ecosystem. Understanding the location and association of invertebrates with local environments is important in maintaining a balanced and healthy ecosystem.

Four invertebrate orders were focused upon during the survey they being:

- Coleoptera
 - In particular the dung beetles
- Lepidoptera
 - In particular the moths and butterflies
- Hymenoptera
 - In particular the ants
- Odonata
 - Dragonflies and damselflies

With the new survey records the total of invertebrate species now recorded in the area is up to 597 of a total 901 fauna species recorded through the survey work since 2011.



The dung beetles were surveyed through a trapping method. In addition to dung beetles a number of ant species were collected through this process. These traps were set below ground level and 'baited' with fresh cow or macropod dung and fermenting mushrooms.

Dragonflies were surveyed through hand netting and sight recognition. Moths were surveyed through a light trap set up at night time. Incidental records were obtained by surveying suitable microhabitats by hand, such as turning over logs and rocks and sifting through leaf litter.

A number of species of particular interest were identified during the survey work. These included:

- The winged ball-rolling dung-feeding *Amphistomus calcaratus*
 - This record is significantly west of other known southern limits of this species.
- Dung beetle *Amphistomus storeyi*
 - Wingless species that has limited distribution and is found only in areas where there is a long persistence of rainforest. This record extends its range west and south.
- Giant Golden Orb-weaver
 - This species is generally found in tropical QLD and is the first confirmed record of this species in the Lockyer Valley. The record extends the species range west of other isolated records in Southern QLD.

For further information about this survey please contact the Environment Officer.

