

Closing the Gap – Functional Habitat for Threatened New England Fauna

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Southern New England Landcare Ltd

- *Our mission is to lead, connect and enable our communities to meet their sustainability goals*
- Not-for-profit community network of 30 groups
- 30-year history of positive impact
- 1,000,000 ha across Armidale Regional, Uralla, Walcha and part of Tamworth Regional Councils
- 760 members and friends – rural and urban
- Policy to take a neutral stance on renewable developments

A group of people is sitting on a hillside, looking out over a lake at sunset. The sun is low on the horizon, casting a warm glow over the scene. The sky is filled with soft, golden light, and the water in the lake reflects the sun. The people are silhouetted against the bright light, and their forms are relaxed as they enjoy the view.

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2016 – 2019 Closing the Gap: functional habitat for threatened New England fauna

\$99,998 from NSW Environmental Trust to build on previous projects and help close a key east-west gap in habitat connectivity

- 12 landholders protected and restored 88 ha with 14,000 native seedlings and 6.5 km fencing
- 3 field events (99 participants) to demonstrate effective on-farm habitat management
- 3 bird surveys by professional ornithologist to indicate and monitor ecological health

This project is across the development area.



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Survey work

- 2006 Land, Water & Wool project – a partnership with University of New England said we were doing the right thing
- Closing the Gap Bird Surveys gave impressive results – we are still doing the right thing – birds are using planted habitat
- Handouts

Closing THE Gap

Functional Habitat FOR THREATENED NEW ENGLAND FAUNA

ers in this project will help
23 km gap in habitat
y for threatened
s and other fauna of
England region
d Invergowrie
and

Closing this gap will help save from local extinction, some of our threatened woodland birds. A spring 2017 bird survey recorded a total of 994 individual birds from 69 species.

Woodland remnants supported 44 species, including the threatened (or NSW) Varied Sittah, locally conservation-significant Eastern Yellow Robin, Dusky Woodswallow, Striated Thornbill, Buff-rumped Thornbill, White-throated Treecreeper and the migratory, hollow-nesting Dollarbird.

Older planted sites (10-25-year-old) were visited by 22 bird species including Brown Thornbill, Striated Thornbill, Rufous Whistler, Grey Shrike-thrush, Yellow-faced Honeyeater, Crimson Rosella and Grey Fantail.

Intermediate-aged plantings (5-15-year-old) supported bird species, such as Superb Fairy-wren, Yellow Spotted Pardalote and Scarlet Honeyeater – all able to utilize food, shelter and nest sites in developing shrubs and trees.

Young vegetation (1 month - 5-year-old) supported for 34 species, typically more common birds - Eastern Rosella, White-winged Woodswallow and a bird of lech pastore Thornbill.

Form

Microbats ('microbats') play a role on wool production. Microbats eat a wide range of insects, predominantly moths and bugs, with some species consuming mosquitoes, grasshoppers and crickets. Individual microbats can consume up to half their body weight in insects in a night. Without their services, insect populations could explode!

Microbats differ in size and shape and where and how they prefer to hunt, so their diet varies accordingly. The freetail bats have long, narrow wings and fly fast and high above trees. Others with broader wings are able to fly below the canopy and pick insects off leaves and branches. The more species and numbers of bats, the better the pest control service they perform.

How many different kinds of bats are there?

Australia-wide, there are more than 70 species of bat, with quite a few yet to be formally described by scientists. The Land, Water & Wool (LWW) Northern

Table 1. The bats recorded by the LWW Northern Tablelands Project on 18 Monitor and Case Study wool properties in the summers of 2002-03 and 2004-05.

Common Name	Latin Name	Diet*	Abundance**
Microbats			
Broad-nosed bat or eastern falsistrelle	Scoteanax or Scotorepens or Falsistrellus sp.	Beetles, slow-flying insects	0.42
Chocolate wattled bat	Chalinolobus morio	Predominantly moths with some beetles	0.58
Common bentwing bat	Miniopterus schreibersii	Predominantly moths	0.27
Eastern cave or little forest bat	Vespadelus pumilus or V. vulturnus	Small flying insects (e.g. moths, beetles, bugs, mosquitoes)	3.94
Eastern freetail bat	Mormopterus sp. 2	Bugs and flying ants	0.01
Freetail bat	Mormopterus sp. 4	Probably bugs	***
Gould's wattled bat	Chalinolobus gouldii	Moths, beetles, bugs, flies and locusts	6.79
Large forest bat	Vespadelus darlingtoni	Small flying insects (e.g. moths, beetles, bugs, mosquitoes)	1.55



Above—Gould's wattled bat, the most widespread and abundant microbat on New England wool properties.



Below—Common bentwing bat.



Southern New England as a Hot Spot

- NSW Government recognizes Northern Tablelands as a **biodiversity** hotspot *and* a **renewable energy** hotspot
- Southern New England Landcare and UPC have fostered a relationship to discuss possible impacts and co-create mitigations
- We want dialogue to continue and produce real results, because...
- Currently 7 SSDs in our region – cumulative impacts



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2019 – 2022 Reconnecting Thunderbolt Country

- \$99,996 from NSW Environmental Trust for *Reconnecting Thunderbolt Country for threatened New England Woodland and Wetland Biodiversity*
- A similar project commencing in the midst of the Walcha Energy Solar Project proposal
- Can offsets via the Biodiversity Conservation Trust (BCT) be directed to project areas?



Recommendations

Require all SSDs in our region to:

1. Consider cumulative impacts of multiple projects
2. Seek to become ecologically literate and honour past work by community
3. Foster an ongoing relationship with Landcare
4. Co-create design solutions with Landcare community and build them into the project plan
5. **Increase east-west habitat connectivity across/through the 'barrier' created by the project**

And, inform/influence decision makers to direct BCT 'offsets' to the project area.



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