



### CONTENTS

Inside this issue	1
Spotlight on the mountain	1
Tracks and traces	1
Are nest boxes too hot to handle?	2
About the QGN	2
About WPSQ	3
Feathertail gliders and nestboxes	4

### Inside this issue

This issue of QGN News brings you some of the latest research into nestboxes. Dr Joanne Isaac has been working with some of the nestboxes installed by QGN last year in north Queensland. Joanne investigates the issue of heat and provides temperature comparisons to natural hollows. Follow the tips to help reduce the heat extreme for your next installation. On page 4 we also have a research summary about nestbox preferences by feathertail gliders— what they like and what they don't?

On a lighter note, if you thought you had to brave the elements and evening night air to find gliders, think again. The following email came in from an observant resident of Ipswich who was surprised to find a feathertail glider had decided to visit her living room.

To everyone else, keep up the good work with the surveys!  
Chris Pfitzner, Community Projects Coordinator

December 2007

Hi,

Just to let you know that we had a visit from a lovely little feather glider this week in our home in Ipswich.

It was on the bookshelf in our lounge room...didn't see it get in but as it scrambled and jumped around the room my husband (thinking it a mouse) caught it in a box. Upon a closer look I identified it as a feather glider. We were thrilled to think of this delightful creature living in our bush (we are surrounded by fairly dense Eucalypt forest with casuarinas and soap trees and many types of gum and wattle) We have had a busy week with two visits by brushtail possums in the house at night too this week!!

We kept it in a small box for a while and put it in a darkened room to recover but it got out and (we hope) made it's way back out into the bush. We were then researching on the web about them when I found your site and noted that you wanted info on sitings....

Cheers

Deb

### Spotlight on the Mountain

While most of Australia was inside watching electoral history, 11 dedicated individuals on Tamborine Mountain were taking part in their own historic event. 24th November 2007 was the day Gliders in the Spotlight hit the mountain.

Workshop presenter Donna Treby, from the Gold Coast, kept the audience entertained with stories of survey work and all were most impressed with some interesting and accurate imitation vocalisations, not all from Donna.

After a quick bite to eat, the group headed to The Knoll National Park for the evening field practical. For convenience the group divided into 2. Both groups were rewarded with brushtail possums but only the super keen heard the vocalisations of the yellow-bellied glider down in the distant gully.

The Tamborine Mountain Natural History Association hosted the Gliders in the Spotlight event and with the assistance of the training workshop will now use their knowledge to help establish an ongoing glider monitoring program on the mountain. Good work, we look forward to hearing how things go.

A big thank you to Nadia O'Carroll for helping to organise this successful event.

### Tracks and Traces

Thank you to Gordon Claridge who sent in these *Xanthorrhoea* sp. pics. Gordon would like to know what has been munching on these inflorescences. We know feathertail gliders can and do feast upon grass trees but this could in fact be the result of something larger, or several different animals.

If you have any other ideas of what could be visiting Gordon's property, drop us a line and let us know what you think?

glider@wildlife.org.au



To see your advertising here, call  
07 3221 0194

## Are nestboxes too hot to handle?

By Dr Joanne Isaac

Joanne is a Post Doctoral Research Associate for the Centre for Tropical Biodiversity and Climate Change at James Cook University

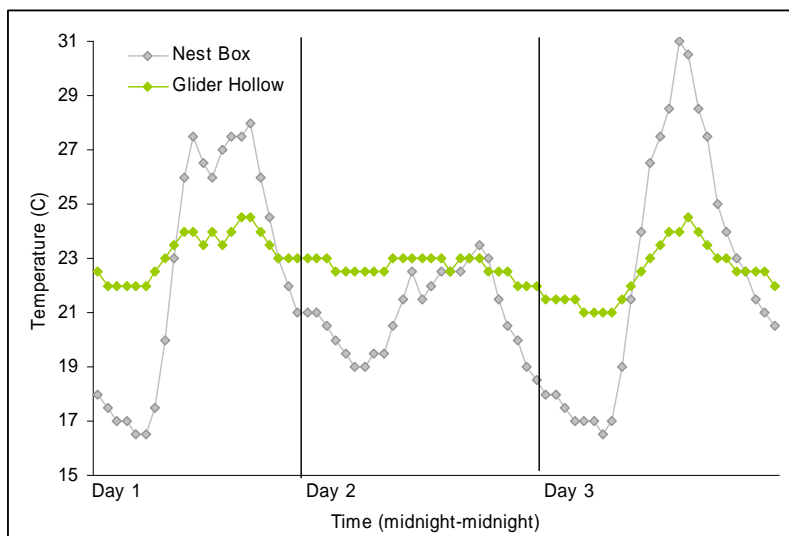
The September 2007 issue of QGN News (No. 5) highlighted the endangered mahogany gliders in tropical north Queensland and discussed recent work by QGN and QPWS to install timber nestboxes to enhance potential habitat for gliders. The nestboxes installed are designed for gliders and have been extremely successful in attracting gliders elsewhere in Australia. However, to date there have been few nestbox programs specifically aimed at tropical arboreal marsupials and one potential problem might be that, compared to the natural hollows that gliders use as dens, nest boxes could get very hot during the tropical summer when temperatures are consistently high. In collaboration with QPWS and QGN, we put temperature loggers into the nest boxes recently installed at two creeks (Whitfield and Corduroy) in the Cardwell area for two weeks in November and December. The temperature loggers are very small, and were contained in a 'tea-ball' for easy insertion and removal (and to stop rats eating them!). For comparison, we also put temperature loggers into naturally occurring hollows, either in fallen trees or in standing live trees. Additional loggers were put into different types of nestboxes installed at Daryl Dickson's (WPSQ member and mahogany glider carer) property in Kennedy.

### Tropical heat

We found that the nestboxes got much hotter during the day than the naturally occurring hollows. Some nestboxes at Corduroy Creek reached temperatures as high as 37.5°C, while the highest temperature recorded in a natural hollow was 32.5°C. One hollow we measured was known to be used by gliders in the past and this hollow in particular had a much lower, and more stable temperature than the nestboxes in the same area (see graph). In general, all the types of nestbox were hotter than natural hollows in nearby trees.

### Cool it down

It's not all bad news for the nestboxes and if you are planning to install nestboxes to attract gliders (or other arboreal marsupials) there are a few easy steps to prevent your nestboxes becoming hot boxes! Our results also show that just by taking care how and where the nestbox is placed, it can decrease the daytime temperature by as much as 6°C. Most importantly, nestboxes which were placed facing north, and which had a greater degree of canopy cover above them, were much cooler than those which faced south and had little canopy cover, and were similar in daytime temperature to many of the natural hollows. So, when installing your boxes, take some time to think about whether they might be exposed to full sun, or whether the entrance may be exposed to inclement weather conditions or get wet – hopefully if your nestbox is installed in a cosy and dry spot, it will be used by gliders for years to come!



**Graph**  
A comparison of the temperature in a natural tree hollow known to be used by mahogany gliders in the past (in green) and a nestbox placed in a nearby tree. The temperature in the natural hollow was very constant, varying by only a few degrees, while the nest box temperature varied by more than 10 degrees.

Cont. overpage.



### About the Queensland Glider Network

The QGN is an exciting initiative aimed at raising awareness of gliders and their habitat. 'Glider in the Spotlight' is a project that will build community capacity to monitor glider populations in a scientifically rigorous manner. QGN is currently expanding the project throughout Queensland.

As a member or participant of QGN you will have the opportunity to take part in a series of training workshops that will develop skills in glider identification and monitoring. Following these workshops, long-term monitoring will be undertaken in bushland sites across Queensland. QGN has also conducted a glider habitat enhancement project during 2007. We have installed glider nestboxes in potential mahogany glider and squirrel glider habitat at various locations across Queensland.

All survey data will be analysed by a professional ecologist and will contribute towards a better knowledge of the distribution, abundance and population trends of Queensland's glider species, which is crucial to their effective conservation.

Whether you are a conservationist, carer, or just interested in gliders, you will find QGN has something to offer you, and in turn, you may have information to share with the rest of us. We hope that you find this newsletter of interest and that the QGN will provide a valuable meeting place and resource centre for all people with an interest in gliders, their habitat and the issues facing their conservation.

## Are nest boxes too hot to handle? cont.

A research summary by Dr Joanne Isaac



### Image Key

- a) a hollow log homes nestbox in place at Corduroy Creek;
- b) a tea-ball with temperature loggers inside a nestbox;
- c) a typical natural hollow with loggers in place;
- d) a PVC type nestbox at Kennedy.

### Care taken with how and where nestboxes are installed can reduce the daytime temperature by as much as 6°C!

1. Where possible face nestbox north with canopy cover and shade.
2. Consider the impact of wet weather
3. Avoid exposure to full sun

### About Wildlife Queensland

The Wildlife Preservation Society of Queensland (*Wildlife Queensland* or WPSQ) is a community environmental group with a wonderfully diverse membership drawn together by a common interest in wildlife. *Wildlife Queensland* started in 1962 and since that time has been working to protect Australia's precious and vanishing natural environment. The first meetings were held in Brisbane, and as the Society respects the importance of local knowledge and local action, branches were quickly established throughout Queensland. Throughout the year we hold events, such as special presentations, Batty Boat Cruises and wildlife conferences. We also publish *Wildlife Australia Magazine*.

There are many opportunities to get involved and WPSQ would love to hear from you! If you would like to know more about our organisation or are interested in volunteering, please contact us at:

Wildlife Preservation Society of Queensland  
95 William Street Brisbane Qld 4000 Australia  
www.wildlife.org.au

ph: 07 3221 0194  
fax: 07 3221 0701  
wpsq@wildlife.org.au



## Feathertail Gliders and Nestboxes

A recent study by Ross Goldingay, Matthew Grimson (both of Southern Cross Uni, NSW) and Geoffrey Smith (EPA Brisbane) investigated the preference of feathertail gliders for nestbox design in southeast Queensland and northern New South Wales.

The study compared the use of four nestbox designs that differed in shape, volume and entrance size:

1. Large box (48 cm height, 28 cm width, 18.5 cm depth) with slit entrance (1.5 cm x 15 cm) on the side.
2. Medium box (40 cm height, 14.5 cm width, 14 cm depth) with 4.5 cm diameter rear facing entrance.
3. Small wedge-shaped bat box (19 cm height, 16 cm width, 12.5 - 5 cm depth) with slit entrance at the base (2 x 16 cm).
4. Small box (23 cm height, 14 cm width, 14 cm depth) with a 2.5 cm diameter rear facing entrance.

They observed no use of the medium-sized rear entry boxes (4.5 cm diameter entry) by feather-tail gliders. In contrast there was frequent use of the three boxes with the small entrances ( $\leq 2.5$  cm). Although use of these boxes did not differ significantly, there was a trend for more breeding groups to occur in the small box with the rear-entry.

Thus, it appears that small and large boxes with narrow entrances ( $\leq 2.5$  cm) will be favoured by the feathertails over other boxes with larger entrances (e.g. 4.5 cm diameter). Squirrel gliders used many of these medium nestboxes at the same location which may explain the avoidance by the feathertail gliders. Previous studies had found that feathertail gliders used this medium sized box on the central coast of New South Wales in the presence of squirrel gliders where no small entrance boxes were offered.

An interesting note to the study is that squirrel gliders were mostly found in the medium rear-entry boxes. They did enter some of the large boxes with smaller entry sizes where there was evidence of chewing around the entrance. There is also reference to another study that found squirrel gliders were found to widen the entrance of a hollow if it was likely to exclude them. This study presumes that squirrel gliders were responsible for seven of the chewed and enlarged entrances found.

### The Bee Issue

The study found that exotic bees occupied only 2 large boxes with the slit entry and ignored the smaller boxes. It is suggested that the small boxes used in the study may have been below the minimum hollow size required for a hive of bees. If this is the case, the use of smaller boxes may remove bees as a management issue, except when larger boxes are required for the target species.

The QGN would be keen to hear from anyone who has found similar trends with bees.

### The Myna Issue

Common mynas (*Acridotheres tristis*) are frequently another concern for nestbox installers and managers. While there was no observation recorded for the study, it was suggested that the rear entry boxes used in the study (and frequented by squirrel gliders) were unlikely to attract common mynas in the way that front entry boxes do.

Some of our members have also found this to be the case. Please share with the QGN, your experience with rear entry boxes. Contact us on 07 3221 0194 or by email [glider@wildlife.org.au](mailto:glider@wildlife.org.au)

The above summary has been taken from the research paper:

**Goldingay, R. Grimson, M. and Smith, G. 2007 Do feathertail gliders show a preference for nest box design? *Wildlife Research* 34, 484-490.**

## Help the Queensland Glider Network and BE SEEN!



Posters \$5 each (plus postage \$5 for up to 4 posters )  
Sugar glider poster also available

Fridge magnets  
only \$1  
What else have  
you got?

Phone  
07 3221 0194  
and order yours  
today



T-shirts \$20 each  
Did you miss out on your size?  
New stock ordering now