QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

This may be the final issue of Network News for 2010 but for QGN it's just the start of greater things to come. The Network is firing up its activities thanks to a lively team of volunteers with new member, Karen Brock, coordinating our activities and communications. Along with Shari English and Matt McInerney, the team is developing activities such as glider monitoring and spotlighting events, a glider research database, a carer locator and our own facebook site.

In this issue — research on the effect of roads and road crossing structures on wildlife, how you can help mahogany gliders and the latest news from QGN members in action.

Remember to let us know what you're looking for in QGN News - email glider@wildlife.org.au or follow us on facebook.

Yours, teaming with gliders

Ewa Meyer
Projects Manager, Wildlife Queensland

City gliders

Since 1885, the year the gasoline powered car was invented, society has been through a substantial change. The number of people in the world has skyrocketed, roads have become one of the most important elements of infrastructure, and the car has become one of the most popular methods of transport.

As cars have become more easily accessible, the demand for roads has increased, and correspondingly our road networks have become more extensive and dense. But this has not been without a cost. Bushland – or 'green space' – has been the victim for many years, making way for roads, housing, and industrial centres. Entire forests have even been removed for the construction of suburbs.

Thankfully, today's society is becoming increasingly conscious of their green surrounds. Bushcare groups have never been more accessible, and environmental awareness is reaching the masses. School children have become so environmentally aware that they think about the actions they take and the effect that they may have.

But what of the wildlife that calls this green space home?

Once teeming with a wide diversity of species, an increasing number of animals have become displaced or isolated by roads. From small single lane roads used as driveways in rural properties, to the multi-lane motorways expediting long distance travel, large areas of bushland have been fragmented or removed to make way for roads. And the result of these barrier effects can be critical for maintaining sustainable wildlife populations.

In addition to the issues presented by habitat fragmentation, road-kill has become a common sight on roads all around the country. From snakes, to birds, to mammals, collisions with vehicles have been responsible for nearly 300,000 wildlife deaths per year in Tasmania alone.[1]

However, a review released earlier this year by Brendan Taylor and Ross Goldingay could potentially provide the answer as to why this trend has not been alleviated. In Australia from 1998 to 2008, approximately 45% of studies were completed in relation to road mortality, while only 4% considered strategic planning. Additionally, "no published studies have examined the effects of roads on the gene flow of wildlife populations".[2]

This presents a big problem with the future of protecting wildlife, as if minimal research is done on the topic, then minimal action can be taken to assist in protecting wildlife. It is even suggested that "frogs and arboreal

City gliders

(tree dwelling) mammals have not been adequately catered for by the design of crossing structures or by research into the requirements".[2]

Fortunately, the scientific community has taken notice of what has been happening, so much so that the number of studies involving roads and the effect on wildlife they possess has increased – rising from <10 in 1998, to an average of 40 per year in 2006-08.[2]

The findings of these studies have resulted with Governments around Australia investigating ways to assist wildlife in relation to road crossings. For example, Glider Poles have been installed at two sites in Brisbane with varied success.

At the Compton Road land-bridge, it was found that it took two years for squirrel gliders to discover the glider poles, and have been recorded using them regularly since. This has been replicated at the Hamilton Road overpass, where evidence suggests that they are already being used by gliders. This is not just good news for gliders, but for other wildlife as well. The vegetation has developed now to such a state that small birds are using this overpass in great numbers.

The success of these installations, not to mention the over and underpasses around the country, has the potential to help solve the mystery of how humans and wildlife can co-exist in urban areas.

On a global scale, however, wildlife crossings have been developed for the last few decades. For example, a project sponsored by the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO) investigated how habitat and wildlife issues are being addressed in Europe.

This project found that effective strategies have been put in place in several countries, such as vegetating existing overpasses to provide connectivity for wildlife, and planting less attractive species along roadways to prevent the occurrence of roadkill.[2]

If this research is to be positively applied in Australia, wildlife crossings must be incorporated into the earliest designs of all transport infrastructures. If this is not done, there is a great risk that Australia's endemic fauna may be unnecessarily lost.

Overseas research has paved the way for future domestic developments to be wildlife friendly. The success of these structures can only be a good thing for the wildlife we share our planet with, as real action may need to be taken to prevent the situation from becoming out of hand.

Article by Matthew McInerney

References

[1] Tasmanian Planning Commission, 'State of the Environment Report 2009' in Indicators/Roadkill retrieved 5 October 2010 11:55am from http://soer.justice.tas.gov.au/2009/indicator/130/index.php
[2] Taylor, B.D. and R.L. Goldingay. 2010. Roads and wildlife: impacts, mitigation and implications for wildlife management in Australia. *Wildlife Research* 37: 320-331.
[3] Bank F G. et al, 2002. Wildlife Habitat Connectivity Across European Highways - U. S. Department of Transportation: Federal Highway Administration: 1-45.

PHOTO: Hair tube on a glider pole

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

Gliding into danger


© Daryl Dickson

The mahogany glider (*Petaurus gracilis*) is recognised as one of Australia's most threatened mammals[1], with fewer than 2500 remaining outside of captivity[2]. Mahogany gliders are found within northern Queensland's Wet Tropics bioregion, where they are restricted to a narrow 110km region north to south between the Hull River, Hull Heads, and Ollera Creek (approx. 65km north of Townsville)[3].

A highly mobile species, the mahogany glider is dependent on continuous open forest or woodland for food and shelter. Suitable habitat is highly fragmented as a result of agricultural land clearance[4] and only a small proportion of this occurs within designated nature reserves. As a result, contemporary population measures are significantly lower than historic estimations[5].

While the recent cessation of broadscale clearing is recognised as a positive step toward the mahogany glider's preservation, remnant habitat is becoming increasingly fragmented due to incremental clearing. This is exacerbated by the increased impact of vine and weed invasions – known as the edge effect[6] – which reduces the size of available habitat further. If left unmanaged, this edge effect can be a precursor to rainforest incursion[7].

Major roads are known to interrupt the movement of many species, as evidenced by recorded road kills[8]. New research[9] reports that gliding poles may be effective in facilitating mahogany glider gap-crossing and reinforces the importance of protecting large trees along barriers such as roads and powerline corridors in open habitat. Such evidence exists for the mahogany glider's closest relative, the squirrel glider (*P. norfolcensis*)[10].

Barbed fencing wire is also responsible for numerous mahogany glider fatalities each year, whether on residential, public or farm land. Unexpectedly, farmers often report entangled gliders[11], indicating a legitimate interest in saving stricken gliders within the farming community. This would suggest that if a viable alternative to barbed wire was available to farmers, there may be scope to reduce mortalities of not just mahogany gliders but also other gliding mammals, bats and birds. If adequately informed of this threat, residential landowners may also contribute by reconsidering fencing options.

The threat to the mahogany glider from barbed wire is not just restricted to privately held properties. Although Queensland Parks have a current policy not to use barbed wire on park fencing, regrettably there is no policy, nor funding, to remove existing barbed wire from fences.

Two important actions that will play a significant role in addressing the plight of the mahogany glider are: halting habitat degradation caused by the edge effect; and working co-operatively with all levels of government and private stakeholders to re-establish habitat connectivity via critical habitat corridors[12]. There is also a need for all relevant stakeholders to cooperatively find alternatives to existing barbed-wire fencing; thereby shifting the onus of this aspect of glider care from the under-resourced volunteers and carers.

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

Gliding into danger

Current federal funding for the mahogany glider has been exhausted and no new funding is immediately forthcoming[13]. This unfairly places the full responsibility of management and restoration of the mahogany glider upon conservation organisations, private institutions and individual volunteers. As such, it is crucial to secure federal and state government funding and support to protect recognised mahogany glider habitat; with a priority for National Parks followed by privately held land. With this support, it is hoped that that the conservation of declining mahogany glider populations would be fast-tracked.

Written by Karen Brock - special thanks to Daryl Dickson and Paul Ferraro for their input and feedback

You can make a difference by emailing Tony.Burke.MP@aph.gov.au Hon Tony Burke MP, the Minister responsible for Sustainability, Environment, Water, Population and Communities, to raise awareness about the plight of the mahogany glider and highlight your hope to see the species endure.

To save time you are welcome to paste the email body in green which follows:

The Hon Tony Burke MP
Minister for Sustainability, Environment, Water, Population and Communities
PO Box 6022
House of Representatives
Parliament House
Canberra ACT 2600
Tony.Burke.MP@aph.gov.au

Dear Minister

I am writing to you to consider the need for funding for the protection of the endangered mahogany glider (*Petaurus gracilis*).

The mahogany glider is recognised as one of Australia's most threatened animal species. Fewer than 2,500 individuals remaining outside of captivity.

Urgent attention is required from government and private stakeholders to re-establish habitat connectivity and prevent further habitat degradation and loss.

I look forward to your response to the plight of the mahogany glider.

Yours faithfully,
Your Name

References

1 EPBC Act Listing Status 1999. Available at: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=26775 Australian Governent Department of Sustainability, Enfironment, Water, Population and Communities (Accessed 3 November 2010)
2 IUCN (2010.4). The IUCN Red List of Threatened Species. *Petaurus gracilis* Available at: www.iucnredlist.org (Accessed 20 October 2010).
3 Parsons, M. and Latch, P. 2007. *Recovery plan for the mahogany glider Petaurus gracilis*. Report to Department of the Environment, Water, Heritage and the Arts, Canberra. Environmental Protection Agency, Brisbane.
4 Jackson, S. M. (2008) Mahogany Glider, Petaurus gracilis. In: S. Van Dyck and R. Strahan (eds), *The Mammals of Australia.* Third Edition, pp. 233-234. Reed New Holland, Sydney, New South Wales, Australia.
5 Ferraro P, personal communications, (03 November 2010)
6 http://en.wikipedia.org/wiki/Edge_effect (Accessed 03 November 2010)
7 Department of Environment and Resource Management. Wildlife and ecosystems, Endangered Species, *Mahogany Glider*. http://www.derm.qld.gov.au/wildlife-ecosystems/wildlife/threatened_plants_and_animals/endangered/mahogany_glider.html (Accessed 27 October 2010)
8 IUCN (2010.4). The IUCN Red List of Threatened Species. Available at: www.iucnredlist.org (Accessed 20 October 2010).
9 Asari Y, Johnson C, Parsons M and Larson J. (2010) *Gap-crossing in fragmented habitats by mahogany gliders (Petaurus gracilis). Do they cross roads and powerline corridors?* Australian Mammalogy, 2010, **32**, 10–15
10 Goldingay RL and Taylor BD (2009)
11 Dickson D, telephone interview with the author, 15 September 2010
12 Dickson D, telephone interview with the author, 15 September 2010
13 Dickson D, Personal communication regarding comments by Bunce A, Department of Environment and Resource Management emailed 2 November 2010

Gliders on facebook

QGN is now on Facebook. If you have a facebook account, please log on, search for Queensland Glider Network and click the 'like' button at the top!

Feel free to join in the discussions on gliders and put your view forward. As our event program builds over the next 6 months we will upload event photos so you can tag friends and keep in contact with other members of QGN.

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

© Lyn Hampson

Caring about gliders

The Queensland Glider Network is working with Kim Schulz, a devoted glider carer in Logan, to develop a network of Glider Carers in the Brisbane region, with the view of eventually spreading Queensland-wide. A carer locality map will be featured next year on the QGN website allowing an 'at a glance' reference to website visitors on glider carers in their area. In addition, data on threats to gliders leading to their admission to carers will be compiled providing a better understanding of the dangers to gliders in Brisbane. Thanks Kim for your commitment and enthusiasm!

Driving to work along country roads over the past year and seeing daily examples of the toll on our precious wildlife, led me to think about the true number of animals that die each day. As carers, we often only get to see an animal when they arrive at the Vets for treatment or rescue from a caring member of the public. Any information used for group data collection is generally therefore only based from this point onwards, on a live animal. If an animal is found dead or dies before vet treatment or allocation to a carer the details are generally not recorded. This leaves a potentially huge number of animals lost without any record of the loss.

The research project proposed is to try and capture details of all glider interactions, "Dead or Alive". We would like details of all contact with gliders to be recorded. The outcome of this would be a greater understanding of the true impact of land clearing, and the contact that vehicles and domestic animals have on glider populations. This information would then be used to map populations of gliders and use this as a benchmark for future research and evidence of population changes.

© Lyn Hampson

At this stage the scope of the research would support the recording of glider interactions on a central database held by QGN. We would be calling for volunteers to contact participating vets for details of any interactions and we are currently considering the possibility of self-reporting by members of the public, using glider identification fact-sheets / web-site information.

A short and simple survey will be provided for vets and carers, with regular contact from our office to collect any glider data. If you are a carer or vet or would simply like to become involved in this research, please email glider@wildlife.org.au to receive an identification fact-sheet.

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

Gliding to safety at St Peter's

8 year old Ashlin, a St Peter's Catholic Primary School student in Rochedale, contacted QGN because she was concerned about the wildlife living in a tree about to be felled at the school.

Ashlin is a member of the St Peter's environmental group, and was saddened by the notion that the gliders in the trees would be without a home. She emailed QGN asking if we could help provide new homes for the gliders.

At the same time, Ashlin's teacher Ann Kirkwood was also talking with QGN about a glider presentation for the group. Ann was surprised and impressed by Ashlin's initiative, and was keen to find a way to provide nest boxes for the displaced animals.

After a callout to our branches for help, Logan branch kindly donated the funds for 3 nest boxes to house the species spotted in the area: gliders, possums and parrots.
With the nest boxes installed and a wildlife spotter and relocator on hand, a possum and its young were relocated and released in reach of the nest boxes, with two gliders gliding to safety. We hope they find their new homes!

The glider presentation followed a week later and was met with a fantastic response, with children taking to the playground afterwards trying to spot nest boxes, glider scratches for tree sap and food trees. Chris Pfitzner, our glider presenter and QGN made a great impression highlighting the importance of gliders for our little future leaders.

A special thanks goes to Wildlife Logan branch for their wonderful support with the nest boxes. And of course to Ashlin - without her initiative these animals may never have been saved. Thanks Ashlin - from all the wildlife you have helped to save and the wildlife you will save in the future!

PHOTO: nest box installation at St Peter's Catholic Primary School, Rochedale. Photo courtesy St Peter's Catholic Primary School

Glideways

QGN is working in conjunction with Brisbane City Council on Glideways - a project in the Kedron Brook Catchment which involves community engagement and training in monitoring of native Australian species, specifically gliders, if surveys establish their existence at this site.

The launch event kicked off last Saturday 6 November and Damian White, one of QGN's Ecologists, will be leading the training workshop and surveys.

Wildlife Preservation Society of Qld

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

Success

glides

Compton Road is a major east west arterial route spanning from Logan Road, Slacks Creek to Beaudesert Road, Calamvale. Brisbane City Council's 2004 upgrade included wildlife crossing structures both over and under the highway aimed at bridging the road-barrier between the Karawatha and Kuraby forests. Some of the crossing structures were specifically targeted at our ground-avoiding gliders and included rope canopy-bridges and wooden 'glider' poles spaced across a land-bridge.

Since the last feature in QGN News Edition 9, the native vegetation on the Compton Road overpass has thickened and grown to form a natural extension of the forests on both sides of the road.

While overseas studies on wildlife land-bridges indicate that it usually takes some time for wildlife to adapt to these human-made wildlife corridors, the Compton Road overpass is experiencing an unusual level of success.

Early monitoring of the glider poles with baited hair-tubes revealed that Petaurid gliders (sugar and/or squirrel gliders) were using them. More recently, infra-red cameras have been used instead of hair-tubes and have captured numerous images of squirrel gliders scurrying up the poles (refer to photo).

While there are no recordings of gliders utilising the rope bridges as yet, there is no reason to think they would not utilise them based on the success experienced in other locations in Victoria and New South Wales.

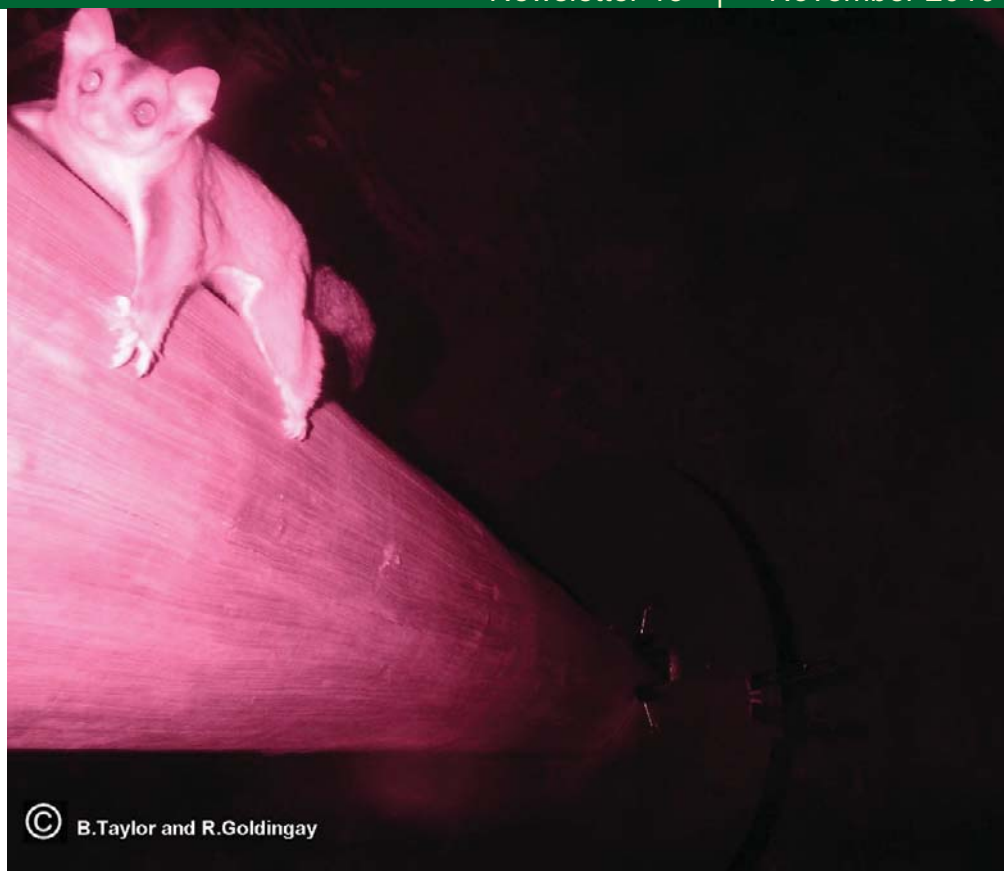

PHOTO: A squirrel glider is 'caught' by an infra-red camera whilst climbing a glider pole on the Compton Road land-bridge, Kuraby, Brisbane. (Photo: B.Taylor & R.Goldingay).

The particular success at Compton Road is thought to be due to the installation of glider poles on the land bridge along with the establishment of local native vegetation to introduce landscape connectivity between the surrounding reserves.

Buoyed on by the success of Compton Road, BCC constructed a second wildlife land-bridge as part of an upgrade to Hamilton Road, McDowall. Glider poles were again deployed along the land-bridge with the addition of ropes slung between them to allow possums or gliders to climb across. So far, squirrel gliders have been confirmed using the poles while camera-monitoring of the ropes continues.

Moving into the future, the success stories with glider poles over 2 lane roads and even 4 lane roads should stand as great examples for connecting fragmented forest habitats for gliders . A next challenge may be to trial tall, wooden glider poles along the roadsides and median strips of large motorways, such as the Gateway arterial, as a way to bridge forests bisected by these enormous pieces of linear infrastructure.

Written by Karen Brock following a phone interview with Brendan Taylor. Particular thanks to Brendan for this update.

Wildlife Preservation Society of Qld

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

Pallara's possums

Pallara State School was featured in QGN News # 10 for their possum and glider monitoring project.

In consultation with the late Ric Nattrass, six nest boxes were installed followed by two cameras. Jonathan Clark, a Pallara State School teacher and past lecturer at QUT, has lead the curriculum and resource planning to monitor the nest boxes from the classroom.

Since the last feature, the first baby brush-tail has been spotted out of the pouch - the first seen in 2 years.

ABOVE: Mother and joey brush-tail possums pictured in one of Pallara's six next boxes.
BELOW, from left: joey suckling, both mother and joey investigating, joey suckling, and mother and joey sleeping. Photos courtesy Pallara State School

Glider goss

The Queensland Glider Network is organising an exciting educational evening, and would like you to be a part of it! The evening is aimed at people with a love for gliders but not necessarily any prior knowledge of gliders, providing an opportunity to learn some interesting facts, and get to know your fellow enthusiasts.

The proposed line up is:

- 7:00 – 7:30pm: Generally Gliders presented by Amanda Ainley, Photographer and QGN Presenter,
- 7:35 – 7:55pm: Trivia presented by Matthew McInerney, QGN Social Networker,
- 8:00 – 8:30pm: How to Help Injured Gliders presented by Shari English, Wildlife Carer,
- 8:30 – 9:00pm: Socialise with other members!

The event will be held Saturday 11 December 2010 from 7:00 – 9:00pm at Wildlife Queensland head office, 95 William St, Brisbane, 4000

All you need to bring is some snacks and your enthusiasm! RSVP is essential as places are limited to 30 – please email glider@wildlife.org.au to register.

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

Bringing gliders into light

Next light

The Queensland Glider Network is organising another 2 glider spotlighting events later this year and QGN members are invited to attend.

The first is 27 November 2010 in Townsville from 7:00-8:30 and the second is 4 December 2010 at White Rock - Spring Mountain Conservation Estate, Ipswich, running from 6:30-8:00pm.

All you will need is closed in shoes, a small personal torch and a water bottle.

RSVP is essential as numbers are limited to 12 people for each trip – please email glider@wildlife.org.au as soon as possible to register.

Further information and a meeting point will be sent upon registration.

Last light

Wildlife Queensland's Glider Network was thrilled to have been invited by the Alexandra Hills Greater Glider Bushcare Group for a special glider spotlighting on 28 August 2010 in the Wimborne Road Greater Glider Reserve, the Redlands. Led by the expertise of Boyd Essex, Bushlands Extension Officer, Redland City Council, the team spotted koalas, common bronzewings, brushtail possums, ringtail possums, a grey-headed flying fox, laughing kookaburras, microbats, a red-necked wallaby, a squirrel glider, a sugar glider, swamp wallabies and tawny frogmouths.

Special thanks go to Boyd Essex for guiding the evening, the bushcare group especially Doreen Payne, for hosting it and to our Queensland Glider Network participants pictured here.

The second glider spotlighting night was held at Sheep Station Creek Reserve near Morayfield on 4 September with an introduction by Helen Thomas, president of Wildlife Queensland's Caboolture branch. Members of the Queensland Glider Network and their families were guided by Wildlife Queensland volunteers, Jessica Gorring and Jessica Walsh, through the reserve just after dusk.

Animal sightings included a common brushtail possum (*Trichosurus vulpecula*) with young clutching to its back, a large huntsman spider and two great barred frogs (*Mixophyes fasciolatus*). Well camouflaged great barred frogs were found on the side of the path in the leaf litter in two different locations. Unfortunately no gliders were seen, reinforcing the Australian wildlife's secretive, unpredictable reputation. A few tusked frogs were heard (*Adelotus brevis*), a tree frog (unidentified) and a flying fox was also spotted.

Despite the absence of gliders, it was a great opportunity for members of the Glider Network to learn more about the fauna and flora in south east Queensland in its natural setting, while gaining some tips on how to spotlight.

QUEENSLAND GLIDER NETWORK NEWS

Newsletter 13 | November 2010

The Wildlife Preservation Society of Queensland (*Wildlife Queensland* or WPSQ) has many programs and projects— the Queensland Glider Network (QGN) is one of them.

We are a community conservation organisation with a diverse membership drawn together by a common interest in wildlife.

Wildlife Queensland has been working to protect Australia's precious and vanishing natural environment since 1962.

If you would like to become a wildlife protector, a subscriber or a volunteer, please contact us:

95 William St Brisbane
Qld 4000 Australia

wpsq@wildlife.org.au
ph 07 3221 0194

www.wildlife.org.au

Whether you are a conservationist, researcher, carer, or simply interested in gliders, you will find QGN has something to offer you, and in turn, you may have information to share with all of us.

Email us your glider news to glider@wildlife.org.au

To join QGN (it's free) - download the membership form from www.wildlife.org.au/qgn/join

QGN News is only available electronically.

Do you have a story to share about spotting a glider?

Send it to *Glider Tales* along with a picture if you have one and we may publish it on our website. See

www.wildlife.org.au/projects/gliders/tales

www.wildlife-australia.org

About our contributors

Karen Brock coordinates the Queensland Glider Network for WPSQ and contracts as a Tourism Analyst and Event Director for Tony Charters and Associates. She holds a Bachelor of Science in the fields of Ecology and Zoology with a background in fieldwork and research in Australian Ecology, as well as Interpretation and Education Programs.

Matthew McInerney moved to Queensland from New South Wales in 2009 to study Conservation and Land Management, and is currently in the process of completing the Diploma. During this time, he has developed a keen interest in the conservation of our environment, and has become passionate about the protection of our native wildlife.