



Photo: Chris Pollitt

What glider is that?

When you see a glider out in the field, after the initial excitement and thrill, you will probably want to identify which species it is. Each species has several distinguishing characteristics, and it is easier to recognise them once you know a few basic morphological (appearance), behavioural and ecological characteristics. The identification key developed by Scott Burnett for the Brisbane/Sunshine Coast region (see page 3) is useful in helping the novice observer out in the field, while also providing information about the possums found in this area.

Body size can be used to narrow down which species of glider you have seen. The feathertail glider (*Acrobates pygmaeus*) is the smallest glider, about the size of a mouse. On the other end of the spectrum, the largest of the Australian gliders is the greater glider (*Petauroides volans*). Adults grow to 60cm (head body length), which can be estimated in the field as the size of a small cat. Yellow-bellied gliders (*Petaurus australis*) are usually smaller (25-40cm head body length), but can appear similar to greater gliders in the field. Squirrel, sugar and

mahogany gliders (*Petaurus norfolcensis*, *P. breviceps* and *P. gracilis* respectively) are all of similar size, approximately equivalent to a large rat.

Other distinguishing morphological characteristics between glider species include colour, shape and length of tail, ear shape and the colour of the animal's eye shine. The feathertail glider, apart from its small size, is very easily identified by its quill-like tail. Greater gliders have much longer tails than the yellow-bellied gliders and have fluffier fur on the backs of their ears. Greater gliders are also known for their white eye shine, seen when spotlighting, rather than the usual pale red of other gliders. Although to make things complicated, there are a few populations of greater gliders that also have a pale red colouring to their eye shine.

Since the other three gliders are similar in size, their other morphological characteristics play an important role in identification (behavioural differences are described below). Squirrel gliders have a very broad fluffy tail, particularly at the base, where it is as wide as the rump. Sugar gliders usually have a narrow tail with a white or black tip, making it

easier to recognise them in the field - squirrel gliders never have a white tip. Mahogany gliders have a very limited distribution in north Queensland, which does not overlap with where squirrel gliders occur. The differences between sugar and mahogany gliders are subtle, though sugar gliders are usually smaller (although not a useful field characteristic) and have a different social structure (see below).

In the field you may only get a glimpse of the glider before it is disturbed and frightened away. However, if you are quiet and very still, you may be lucky enough to witness them feeding, socialising, entering hollows or even gliding between trees. In any case, the morphological characteristics may be difficult to observe if the view is unclear or from a lengthy distance. Fortunately, looks aren't always important. Gliders can also be identified by their calls (vocalisations), social behaviour, and the habitat they are usually found in.

The tell tale difference between the two larger gliders is their vocalisation behaviours. The yellow bellied glider has a loud gurgling sound, which often reveals its presence, in contrast to the greater glider which remains silent for most of the time. Sugar gliders have a distinct 'yap yap yap' barking call,

Welcome to another issue of QGN News in 2010.

This issue has been written and compiled by Jessica Gorrington and Jessica Walsh who have been volunteering on various Wildlife Queensland projects all year. The focus is on giving our newest QGN members some tips on glider ID and spotlighting. We also discuss the controversial subject of wildlife as pets.

We hope you can join us on one of the forthcoming spotlighting walks in Capalaba or Sheep Station Creek. Places are limited - book early - see page 4.

Happy Spotlighting
Ewa Meyer
Projects Manager, Wildlife Queensland

What glider is that?

which differs to the deep guttural call of the squirrel glider. To get a better understanding of what they sound like, listen to their calls on Wildlife QLD website.

While, the social structure of gliders is not a reliable identification tool, this aspect of their biology is good to remember, because if the species of glider you have located usually lives in colonial groups, you have a chance of seeing multiple animals. Feathertail gliders are very sociable, and can be found in large groups of as many as 29 individuals. Sugar and squirrel gliders have similar behaviour, where both are colonial, living in groups of 2 – 9 or even 12 individuals. The mahogany glider has developed different social behaviour, as it is usually solitary or found in pairs. Yellow bellied gliders are also found in groups, while greater gliders are solitary, except during the breeding season, when they form pairs.

All this information is just words on a page until you grab a torch, and get out into the field to do some glider spotlighting! Don't lose interest or enthusiasm if you aren't successful on your first visits, because the conditions

(food availability, weather, etc.) or location might not be appropriate. With persistence, good spotlighting techniques and a bit of luck, you will be rewarded with some fantastic glider sightings. Remember when you see a glider, try to get a clear view of its tail before you lose sight of it, and listen for its vocalisations to have a greater chance of identifying it afterwards.

Written by Jessica Walsh, University of Queensland

For more information about glider identification, go to the Wildlife Queensland website www.wildlife.org.au

We recommend these books: *Gliders of Australia, a natural history* (Lindemayer, 2002) and *The Mammals of Australia 3rd ed.* (Eds. Van Dyck and Strahan, 2008).

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Common name

Feathertail Glider

Greater Glider

Yellow-bellied Glider

Sugar Glider

Squirrel Glider

Koala

Common Ringtail Possum

Mountain Brushtail Possum

Common Brushtail Possum

Latin name

Acrobates pygmaeus

Petauroides volans

Petaurus australis

Petaurus breviceps

Petaurus norfolcensis

Phascolarctos cinereus

Pseudochierus peregrinus

Trichosurus caninus

Trichosurus vulpecula



Sugar glider volplaning. Photo: Chris Pollitt

What glider is that?

A key to the identification of the gliders and possums in the South East Queensland region

This key was designed by Scott Burnett to assist with the identification of the 8 species of possums including gliders, which occur in the Sunshine Coast area. It is also relevant to the greater south east Queensland region. Please note that the mahogany glider is not included in this key - it is only found in a very small area in north Queensland.

It is advised to cross reference all identifications made using this key with Menkhorst and Knight's (2001) *Field guide to the Mammals of Australia* and Van Dyck and Strahan's (2008) *Mammals of Australia*. This key has been derived through the examination of animals by the author in the field and from specimens held in the collections of the Queensland Museum. Particular thanks are due to Heather Janetzki and Steve Van Dyck for providing access to the collections and laboratory space. Whilst all native mammals are protected and it is illegal to deliberately trap or collect specimens, those that are found dead can be identified by contacting the Queensland Museum.

GLIDERS AND POSSUMS ON THE SUNSHINE COAST

1a. Very large (up to 12kg), tail absent	Koala
1b. Weight <5kg, has a conspicuous tail	2
1a. Mouse-sized, tail with two rows of stiff hairs giving it the appearance of a feather, gliding membrane present	Feathertail Glider
1b. Much larger than mouse-sized, tail without stiff rows of hairs, with or without gliding membrane	2
2a. Gliding membrane present, underside of tail lacks strip of bare skin	3
2b. No gliding membrane, underside of tail with a strip of bare skin	6
3a. Ears rounded, outside of ears furry, brilliant white eyeshine ...	Greater Glider
3b. Ears pointed, appear naked, eyeshine orange.....	4
4a. Body fur brown, belly yellow or cream, total length >55cm	Yellow-bellied Glider
4b. Body fur grey, belly fur white or cream, total length < 55cm	5
5a. Tail narrow, distinctly narrower than rump, tail with white or black tip.....	Sugar Glider
5b. Tail broad, base of tail very fluffy about as wide as rump, never with white tip	Squirrel Glider
6a. Ears rounded and furry, tail tapering to a narrow tip, usually white tipped.....	Common Ringtail Possum
6b. Ears large and appear naked, tail fluffy along length except for naked tip	7
7a. Ears large and pointed, much longer than wide, body fur colour variable, rarely in rainforest	Common Brushtail
7b. Ears shorter than above, about as long as they are wide, body fur charcoal grey to black, rainforest.....	Mountain Brushtail

Tips on spotting a glider in the wild



Photo: Chris Pollitt

Few people have seen a glider in the wild. So how can you maximise your chances and enjoy the experience? The first step is to determine a location where gliders may be present. You could try asking around in your local area or contacting experts at the Queensland Museum, Qld Parks and Wildlife Service or the Queensland Glider Network. You can also check out any large patches of vegetation with mature trees, preferably old-growth with tree hollows and dead branches. It is a good idea to look for possible food sources such as flowering plants, feeding scars or scratch marks on acacia or eucalyptus species to determine if gliders are present.

You have now found an area: what is the next step? You need to decide which survey method to use. This is based on your experience and knowledge of the area, the group you are with, the resources available, the amount of time you have and your patience. If you know people who are qualified and have the appropriate permits, you may like to get involved in monitoring nest boxes or habitat trees.

Monitoring may include installing nest box cameras to film activity, or climbing a ladder to check the nest box or hollow to observe the occupant.

For most people this is not an option; but there are alternatives you can try on your own. You need a torch with a red light filter - or you can just cover the torch with red cellophane to provide the red filter.

When spotlighting, scan trees with the torch near your eyes, watching out for animals' eye shine. Eye shine is normally pale red, though white for greater gliders. You may pick up eyeshine from other animals, including possums, koalas, birds, spiders (and cane toads if you are looking at the ground). Keep an eye and ear out for other signals that may help you spot a glider, such as fresh feeding scars on trees (sap dripping down from cuts in the tree), flowering and fruiting trees, the gliders' distinctive calls, and rustling in the trees.

Stagwatching is another option - especially if you'd rather not walk around in the dark. Stagwatching involves selecting a potential hollow or nest box to observe and waiting before dusk to see which animal emerges from the hollow for a night's foraging. If you are really enthusiastic, watching for several nights would be worthwhile, as you will get to know the gliders' habits and preferred trees. (Note - never shine the light into the hollow or nest box entrance as it may disturb the animal).

For all of the glider species, except for the feathertail, stagwatching and spotlighting are suitable techniques. This is because their size and vocalisations make it easier to spot them from a distance. Monitoring of nest box or hollows or stagwatching are the most effective for finding feathertail gliders, as it is almost

impossible to spotlight them, due to their small size.

One last tip - for all of these techniques it is really important to be very quiet to increase your chances of spotting them and to have lots and lots of patience. Have fun searching for gliders.

Written by Jessica Gorring



Spotlighting Tours - just for QGN members

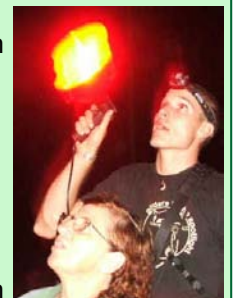
We are conducting spotlighting surveys to look for gliders. There are two dates and two locations. We invite QGN members to join us:

Location 1: Greater Glider Reserve (Capalaba, South of Brisbane).

Date: 28 August
Time: 6:30 - 8:00 pm

Location 2: Sheep Station Creek (Caboolture, north of Brisbane).

Date: Saturday 4 September 2010
Time: 6:30 - 8:00 pm



What to Bring: Yourself, closed shoes, personal torch (small), water bottle.

Numbers are limited at each location - RSVP is essential by 23 August 2010. Email glider@wildlife.org.au or phone 3221 0194.

Further information and meeting point will be sent upon RSVP.

Gliders at home – are they suitable **pets**?

After waking up in the morning, you make breakfast for you and your GLIDER!? For some people this is a reality; not a fantasy. Our very own sugar glider has become a popular pet in America. This species can also be kept as a pet in South Australia and Victoria with the appropriate licence. However, in Queensland there are State laws which prohibit keeping gliders as pets. Recently the debate has arisen – should we be allowed to keep sugar gliders as pets?

There are numerous arguments for and against owning such a pet. Many people are against the idea of domestication - these animals are still considered wild and are not domesticated like the household cat and dog. This means that gliders still maintain all of their wild habits which may include traits that are not usually suitable for species in the pet trade such as aggression or shyness. Gliders may also go through a personality change when they reach sexual maturity - this trait is also commonly selected against through domestication (NSW ECC, 2008).

Gliders have a very specialised diet of leaves, nectar, tree sap and insects - so owners are not able to buy food for them at the supermarket. Some people have been inclined to give treats to their gliders, as they do with cats and dogs; these are potentially harmful to the animal. In some cases, such as in the USA, it has been reported that pet gliders have been fed milkshakes and hotdogs as part of their diets. When they get sick, who do we take them to? Most vets do not specialise in wildlife care, especially in countries where the animal does not naturally occur.

Another issue that relates to keeping gliders as pets is that they are small delicate animals. This makes gliders an unsuitable pet for children as they may break the tiny bones of the animals through overexcitement or just being a little heavy-handed. Gliders are generally incompatible with other domestic animals. Other animals we keep could see the glider as a very nice little snack.

Gliders are nocturnal animals, which means they are most active just as we are getting ready to go to sleep. Unlike some other animals, it is unlikely that gliders could be toilet trained. It is possible that new diseases for humans and the gliders could emerge as a result of living within such close proximity to these animals (Viggers 2003), although little is known on this matter and it requires further research.

Despite the many reasons why gliders will not be suitable pets, there are some arguments why they could prove popular in Queensland pet shops.



Gliders are known to make great pets as they will usually form a close bond with their owner. Gliders in captivity have a long life span, with individuals known to live up to 15 years. This means you can enjoy the company of your friend for a long time.

Gliders are very clean animals and do not have any offensive odours, if their environment is properly maintained. Gliders may also be immune to many of the cat and dog diseases and parasites such as heartworm (ASGV, 2010) and may not require constant needles from the vet that could be expensive. Even though they have a specialised diet, it largely consists of fruits, flowers and insects, which can be obtained in speciality pet stores.

By far the most positive influence that gliders as pets could have would be the increased awareness of the plight of wild populations of gliders. Most people have never seen a glider, or do not even know that they exist. Bringing them into households would increase public recognition of these

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Gliders at home – are they suitable pets?

animals. People, especially children, would have a better understanding and more sympathy for a creature they can get close to and touch than to animals they observe from a distance or in zoos. Therefore the increased familiarity and rapport with these creatures could prove beneficial to the plight of the more vulnerable species of gliders. It is also possible that a proportion of the revenue made through the sale of gliders as pets as well as accessories, could provide funding to support research and conservation of wild glider populations (Johnson, 1999).

Where would gliders for the pet trade be sourced from? Gliders would need to be bred in captivity. To ensure that gliders are not illegally removed from the wild and sold as pets, all breeders, distributors and owners would require permits outlining the glider's history and source location. Strict penalties for illegal activities should be enforced. In addition, wild populations would require constant monitoring to ensure the protection of the glider species. Enforcement of regulations would be resource-intensive and require cooperation by various bodies such as all levels of government, RSPCA etc.

Are people responsible enough to care for a wild animal correctly? Many fears associated with the keeping of gliders would be accounted for if potential owners were educated on how to care for their gliders properly. As we have all seen with household cats and dogs, there are some people who simply should not own any animal. To avoid this problem for gliders, the application process to obtain a permit should include a thorough examination of the potential owner's lifestyle and motives for having a glider, the proposed living arrangements and a practical component on how to care for a glider.

Despite the best arguments for or against whether gliders should be kept as pets, in Queensland the ownership of gliders will remain illegal unless laws change. Until then the debate over wildlife as pets will continue.

Written and researched by Jessica Gorring

**We'd like to hear your thoughts on this subject.
Do you think gliders could be kept as pets?
Email glider@wildlife.org.au**

Update in next QGN News.

REFERENCES

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Wildlife Queensland's position on the keeping of wildlife as pets

Wildlife Queensland opposes the concept of wildlife as pets.

The domestication of native animals when they become pets will result in a species change or adaptation that will change the behaviour, adaptability and social structures of a native animal kept in a human situation.
It ceases to be a wild animal.

Native species need our support in the form of habitat protection and lack of impact from human activity, not a fragmented and haphazard captive breeding program that would result from domestic 'captivity.'



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:

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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



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Jessica studied ecology and zoology at the University of Queensland, completing Honours in 2009.

She is working on the management and recovery of threatened Australian species cost effectively.

Jessica plans to travel to South America soon to pursue further conservation work and study.

Jessica Goring Morayfield.

Jessica graduated from the University of Sunshine Coast with a Bachelor of Science (Honours) in 2009.

For her honours project, Jessica studied the yellow-footed antechinus (native marsupial mouse) in the Greater Brisbane area and the habitat elements that it requires to survive in these urban areas.

