

WATCHING WILDLIFE — a beginner's guide

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As Land for Wildlifers you no doubt want to know whether your efforts to maintain and enhance wildlife habitat are having the desired effect – that is, providing homes for native birds and animals. By taking some regular time out to observe which species are sharing your property, your wildlife-watching efforts can develop into a valuable record of changes over time.

Surveys carried out by trained biologists are expensive, and are limited by time constraints. Many important species sightings are opportunistic. By being on-site on your property, you can record those one-in-a-million sightings that organised fauna surveys often miss.

Wildlife watching can be a solo or team effort. It doesn't have to be vigorous and physical, but like all activities it needs to be done regularly to be of most benefit to your health. For couch potatoes, spotlighting from a slow-moving vehicle or the point survey are ideal low-energy techniques. Those who are more energetic can try the walking census method.

This guide is for Land for Wildlifers who are new to the game of watching wildlife. Those who are more experienced might like to share some of their special tips in future issues of the Land for Wildlife newsletter.

What equipment do I need?

To get started, the following items are essential:

- notebook and pen
- self-sealing plastic bags for specimens such as droppings, feathers, hair etc.
- binoculars

Optional items include:

- camera
- cassette recorder
- spotlight
- headtorch

A word about equipment

There is a bewildering selection of binoculars on the market, ranging

from El Cheapo specials costing less than \$100, to top-of-the-range models which you will probably need to take out a second mortgage to acquire. As binoculars are a precision optical instrument, you basically get what you pay for, although a good pair can be bought for around \$300. Binoculars are described by their magnification and field of view, which is the size of the area you can see when looking through the lenses, for instance, 8 x 30 refers to a magnification of 8 and a field size of 30. Lower field sizes mean a narrower field of view, and also that more light is required for an adequate image, something to bear in mind for low-light situations such as late evening or dense forest. Higher magnification is good, but if you have a shaky hand it can sometimes be difficult to keep the image steady.

Portable spotlights are usually run from a small, sealed 12V battery, carried in a shoulder bag or backpack. Some brands have adaptors so they



can be run from the cigarette lighter socket of the car too, or clips to attach them directly to the car battery. Don't be tempted to go for the biggest, brightest 100W bulb, it will drain your portable battery and bedazzle any hapless animal within 50 metres. Thirty or 50W bulbs are adequate. Some spotlighters use red filters because they supposedly don't disturb animals as much as white light.

Good quality torches are quite good. When rested on the shoulder they will pick up eye shine and the adjustable beam can be altered to suit the situation.

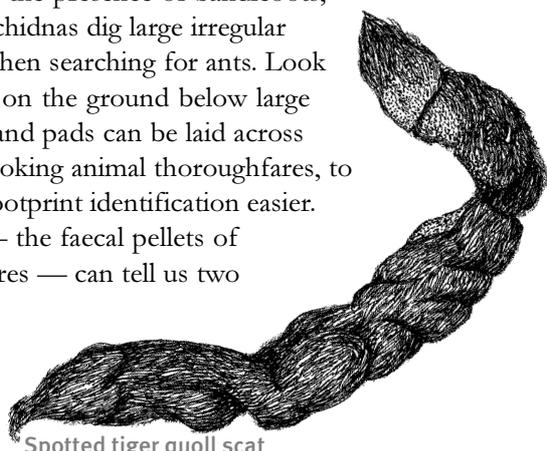
Where do I start?

Wildlife watching involves all your senses. Sight, hearing and smell can be used singly or in combination to identify which animals are present. Would-be secret service agents can apply their detective skills to look for other more cryptic clues – such as tracks, nests or scratch marks on trees. Different techniques are used for different animal groups, depending on their habits and patterns of movement.

Most birds are active during the day and have distinctive calls, making them one of the easiest groups to observe. It is best to look for birds in the morning or evening.

Most native mammals are cryptic and nocturnal, so you must be prepared to work after-hours to observe them directly. Frogs are most active at night after rain, and can be difficult to see. They are often identified by the calls made by males. Reptiles and invertebrates (such as insects, spiders, snails) can be observed by carefully turning over rocks, fallen timber or litter on the ground. Always replace any cover to minimise habitat disturbance. Reptiles will be easier to observe in the cool of early morning, rather than the middle of the day when they are at their most active.

Rain after a dry spell will often bring wildlife out of hiding. Blind snakes (harmless!) normally live inside termite mounds, and are usually only seen on the surface of the ground on warm evenings immediately after rain. Unseen animals can be detected by footprints, droppings, digging sites or burrows. Small conical holes indicate the presence of bandicoots, while echidnas dig large irregular holes when searching for ants. Look around on the ground below large trees. Sand pads can be laid across likely looking animal thoroughfares, to make footprint identification easier. Scats — the faecal pellets of carnivores — can tell us two



Spotted tiger quoll scat

Illustration by Tom Mumbray

things: the identity of the animal that produced them and what prey it has been eating. Droppings of herbivores are generally characteristic for a particular species. Possums and koalas produce pellets of different size, shape and colour, although both smell strongly of eucalyptus leaves when broken apart. Look around the bases of large trees. Small bundles of fur and bones are a good sign that owls are roosting above. Be sure to wash your hands thoroughly with anti-bacterial soap after handling any droppings or pellets.

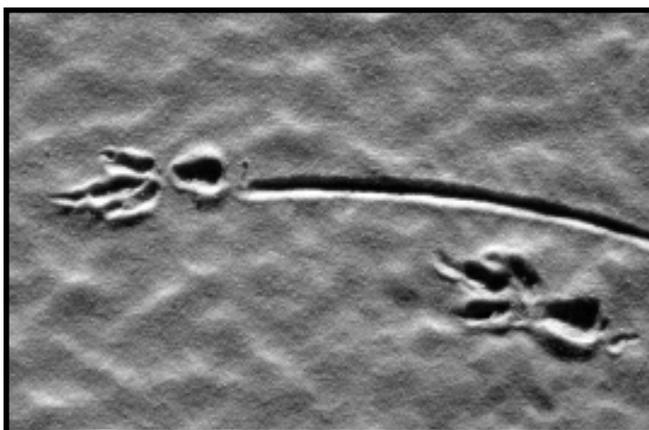
You have to use your detective skills when looking for wildlife. Tracks and scats (faecal pellets) are just a few of the clues as to what animals may be found in your area.



Emu tracks



Cassowary scats



Goanna tracks

Simple systematic survey techniques

The following are non-invasive survey methods which don't involve catching and handling animals. Surveys which include trapping require a permit from the Queensland Parks and Wildlife Service, and must be conducted under the supervision of someone who is trained in handling wildlife.

Making notes is vitally important. I cannot emphasise this enough. It's a good idea to keep a notebook especially for recording your wildlife observations. Surveys need to be regular and consistent, so that meaningful comparisons over time can be made. Little and often is better than a big effort once a year. Try to use the same methods each time. If you are doing point counts, go to the same place at the same time of day, and record your observations for the same length of time. For a walking census, follow the same route for the same length of time, starting at the same time of day. It is important to sample through the range of seasons in a year, and preferably to sample the variations in seasons over a number of years.

Walking and point counts: suitable for birds, large mammals, frogs, reptiles

Walking counts are a census of all species seen and/or heard when following a particular route for a set period of time. This is usually repeated at the same time of day for three or four days in a row, several times a year. Monthly surveys are excellent if you have the time, but four times a year is adequate. Choose a path through your property that traverses all of the different vegetation types that occur in it. In your notebook you can record actual sightings, and make drawings of diggings or tracks. Alternatively, for a more accurate record, you can take a photograph - with a small item such as a coin included for size reference.

Point counts record species from fixed points for a set radius (for instance, 50m), and for a set time period (for instance, of 20 minutes). These are also repeated at the same time of day for a few days in a row, several times a year. Point counts are good for denser habitat areas such as rainforest, where birds and other animals are often difficult to see. Take along your folding chair for maximum comfort, and sit quietly for five minutes before starting to record your observations. This gives the animals time to get used to your presence. The inquisitive species will often approach you quite closely.

Tape recordings of bird and frog choruses can be made while you are doing point or walking counts.

Another useful method is to regularly check around watering points and sandy (dry) creek beds for tracks. This will build up an inventory of the different species using that point and will show changes in species with seasonal changes. It is also a good way to start learning tracks of



There are other clues to look for when searching for wildlife. Yellow-bellied gliders leave behind these scars after feeding on sap.

different species as the imprints are nice and clear. Once you are familiar with the tracks of the local species, a lot more information will be gleaned about their movements on other parts of the property.

Spotlighting: suitable for nocturnal birds, mammals, reptiles and frogs

Spotlighting from a vehicle can be used to see kangaroos, large possums and larger reptiles but of course you will be restricted to tracks and open areas of the property. For a walking spotlight census, you could use the same route as your daytime surveys.

When spotlighting, look for eyeshine to indicate an animal's presence. Tree-dwelling animals can be difficult to see, even with a spotlight and binoculars, but some species can be identified by their eye color. Red eyes probably belong to a brush-tailed possum, while greater gliders have bright silver eyes. A pair of round green eyes staring out from a tree just might be a southern boobook, while pink eyes just above ground level could be a rufous bettong.

A light in the hand will not reveal the eyeshine of smaller animals, so you need to look down the beam too,

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especially to pick up the eyes of geckos, frogs and spiders. A headtorch is excellent for this purpose because the light is at eye level.

What is it?

Identifying what you see, hear or smell can be a daunting task for the beginner, but with practice and perseverance you'll learn quickly. Wildlife identification guides, books, cassettes and CD's of bird and frog calls are available from your local library or good book stores. Some of the more well-known guides are listed below. Dead specimens can be sent or taken to the Queensland Museum for identification. Tertiary institutions, local naturalists and your regional NatureSearch officer may also be able to assist with identification.

Happy wildlife watching!

Kay Dorricott

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References & further reading

Sanders, A., 1999. How to Conduct a Community Fauna Survey. Department of Conservation and Land Management, Como, Western Australia.

Dorricott, K. E. & Roberts, B. R., 1993. Wildlife Conservation on Planned Properties: a guidebook for Queensland landholders. University of Southern Queensland, Toowoomba.

Dorricott, K. E., 1997. 'Wildlife monitoring and habitat', pp. 153-157 in Managing and Growing Trees, Conference Proceedings Volume 1, edited by A. Grodecki. Queensland Department of Natural Resources, Brisbane.

Bibliography: wildlife identification

The following are just a few of the identification references available. There are many more. We plan to produce a Land for

Wildlife technical note soon with a more comprehensive listing of useful wildlife references.

Barker, J., Grigg, G. & Tyler, M. J. 1885. A Field Guide to Australian Frogs. Surrey Beatty & Sons, Chipping Norton.

Cogger, H. G. (ed.) 1996. Reptiles and Amphibians of Australia. 6th Edition. Reed Books, Sydney.

Harvey, M. S. & Yen, A. L. 1989. Worms to Wasps. Oxford University Press, Melbourne.

Morrison, R. G. B. 1981. A Field Guide to the Tracks and Traces of Australian Animals. Rigby, Adelaide.

Pizzey, G. & Doyle, R. 1997. A Field Guide to the Birds of Australia. William Collins & Sons, Sydney.

Simpson, K., Day, N. & Trusler, P. 1999. Field Guide to the Birds of Australia, 6th Edition. Viking Penguin, Ringwood, Victoria.

Slater, P. et al. 1990. The Slater Field Guide to Australian Birds. Weldon, Sydney.

Strahan, R. (ed.) 1995. The Mammals of Australia. Australian Museum/Reed Books, Sydney.

Triggs, B. 1996. Tracks, Scats and other Traces – A Field guide to Australian Mammals. Oxford University Press, Melbourne.

Watts, C. H. S. & Aslin, H. J. 1989. The Rodents of Australia. Angus & Robertson, Sydney.

Wilson, S. K. & Knowles, D. G. 1988. Australia's Reptiles: A Photographic Reference to the Terrestrial Reptiles of Australia. Collins, Sydney.

Zborowski, P. & Storey, R. 1995. A Field Guide to the Insects of Australia. Reed Books, Sydney.

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