

Citizen observations of koalas: making your data count

NATIONAL KOALA MONITORING PROGRAM

The National Koala Monitoring Program (NKMP) aims to fill knowledge gaps for future Koala recovery and management efforts. CSIRO is leading the co-design of the four-year program and facilitating the roll out of NKMP with the broader Australian community. The key objectives of this monitoring program are:

- Inclusive to enable all members of the Australian community to contribute to this national koala monitoring effort.
- Long-term to build individual and collaborative capacity to collect robust data that can be used for evidence-based decision-making.
- Integrative to build best-practice methods and data management systems to integrate available and new data to provide local and national insights into koala population status and trends.

The NKMP uses a wide range of approaches to monitoring koalas. This enables us to use a wealth of existing knowledge and suit our data collection methods to the specific needs of each site.

Keen to learn more? Visit <u>National Koala Monitoring Program</u>. Any questions or keen to find out how you can share your koala observations or data? Contact us at <u>KoalaMonitoring@csiro.au</u>

KOALA CITIZEN OBSERVATIONS

If you are going out on a nature walk or doing a targeted survey, you may want to upload your observations through your favourite app to help contribute to our shared knowledge of koalas and their habitats.

In recent years, thanks in part to the rise of smartphones and other technology, members of the public have been getting involved in gathering observations of plants and animals and recording them on a variety of platforms through apps like iNaturalist, eBird or the Atlas of Living Australia. This has generated vast amounts of data with millions of individual data points on maps for scientists to use.

One downside of these observations is that they are often recorded in ways that make them difficult for scientists to make the most of the observations. For example, not recording the precise location or date of your observation will likely mean that your observation will have to be excluded from analysis. Below are a few tips that will help you provide data that is as useful as possible to the very grateful scientists analysing your observations at the other end.



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Figure 1: There are many citizen science groups and apps that are being used to collect koala observation data.

SOME THINGS TO THINK ABOUT

- The objective is to record observations of koalas, or no observations of koalas while actively searching for them, at different locations across the koala range of eastern Australia.
- **Equipment:** binoculars, phone (or recording device), suitable walking shoes, hat & clothing to protect yourself from the elements, and sufficient water & food for the occasion.
- Phone app for recording observations: Different apps will allow you to record different things. Most will record your location and time automatically with the observation. Try to pick an app that allows you to record as much detail as possible. That could be a general platform like the Atlas of Living Australia or a specific koala counting app (e.g. the NKMP koala counter or the NKMP koala spotter app Figure 2).



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As a bare minimum, record the location (preferably as a GPS point) and the time of observation. If you are not using an app that automatically records your location, a general app such as 'GPS Coordinates' will give you coordinates, or open Google Maps and use the locator icon to zoom into where you currently are, touch and hold at the where you are on the map to drop a red pin. At the bottom of the screen, the dropped pin will show its coordinates in latitude and longitude. Double check that your device has picked the correct location. Sometimes it can take a few moments for your phone to get your exact location. If uploaded without a location, or with an inaccurate location, your observation is of limited use.

Report Koala Sighting
Home
* Scan for Ear Tag
You have located a Koala Tag ID: 8637 Koala Sex: Not Found Koala Age: 0 Koala Bio: We could not find this Koala in our database. Please bear with us, we are working hard to keep it up to date!
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 Photograph Koala(s) O
Submit

Figure 2: The NKMP uses data from a range of citizen science apps, including the NKMP Koala Counter app.



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OBSERVATIONS

- Think about not doubling up on koala sightings. If you are part of a large group of 10 people and you all spot the same koala and then everyone reports their observation, that will be 10 records of koalas observed at that point and time. Researchers will have no way of knowing that there was in fact only 1 koala and not 10. One way to avoid this is to appoint a recorder for your group. If this is a popular place, it might be worth checking that the same koala hasn't already been reported for that time and location as others may have beaten you to it.
- Think about where you may go looking and how much new information you are adding. Observations from popular places for sightings are useful but only tell us so much. On the other hand, observations from places where there might be koalas, but few people have really looked, are like gold dust to scientists. That doesn't mean you have to go to wild remote places; just think about how you can add value and if recording Jim the backyard koala for the 10,000th time is as useful as maybe going to a new spot and having a look there. Note, don't record animals in captivity.
- Be a zero hero! Although it can be disappointing to put in effort and get no reward of seeing a koala, if your chosen app allows you to record a survey where you looked but found nothing this is very valuable information for scientists. We often know a lot about where koalas are but almost nothing about where they aren't. Putting in some search effort and being certain there are no koalas in an area helps add to the scientists' knowledge base.
- One of the best ways to enhance the usefulness of your observations is to provide some record of the search effort it took you to find the koala. For example, you could record how long your walk was and/or how much time you spent searching for koalas in total. You could also record what size of area you covered in your search. If one person spent four hours intensely searching a small patch of ground and found five koalas that is a lot of search effort compared to someone who cycled through the same area for 5 mins and saw two koalas. Providing a measure of survey effort is particularly useful in areas where koalas occur at low densities and are hard to find.
- Consider noting other useful information around your sighting, such as species of tree it is in, and surrounding land use and habitat (e.g. on road corridor near cleared paddocks; 10 m off walking trail in open woodland). If possible, take and upload a photo. Even though koalas are very identifiable, having a photo can still provide information that might not have been recorded elsewhere (e.g., the health of the koala, what tree it's in, etc.).
- Lastly, if you feel like you want to move beyond casual observations and do some more structured surveys, check out the other methods documents from the NKMP website to find out more about walking transects, drone surveys and audio recorders.



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USEFUL REFERENCES AND LINKS TO POPULAR KOALA APPS

Koala Spotter - NKMP App on Google Play

<u>Koala Spotter - NKMP App for iOS</u>

Koala Counter – NKMP App for iOS

Australian Citizen Science Association

<u> I Spy Koala – NSW app</u>

<u>iNaturalist</u>

Australian Citizen Science Project Finder

ACKNOWLEDGEMENTS

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