NSW BIODIVERSITY CONSERVATION TRUST

Land Libraries

Check-in with Nature, Check out the Data

Survey Guidebook - Kangaroo Valley and Surrounds

NSW
GOVERNMENT

Check-in with Nature, Check out the Data

Congratulations on starting your Land Libraries journey!

We hope you have enjoyed the Library Launch workshops with our team and are ready to start collecting biodiversity data on your property.

The knowledge we collect about the species within your agreement will provide you with information to support your management decisions and identify the amazing biodiversity you have in your backyard.

We have created this Survey Guidebook which includes a seasonal calendar full of locally significant species to look out for as you survey the biodiversity on your property.

We have also developed tutorial videos specific to the Land Libraries project, as well as other survey techniques that will get you thinking about how to best sample the biodiversity found on your Agreement.

These videos can be found in the Land Libraries hub on NatureMapr, where you can also read and join-in on discussions, check out significant sightings from other Land Librarians and see where you sit on the top contributor list.

In this Guidebook you will find:

- Threatened species local to your area
- Habitat information
- Seasonal Calendar with peak detection months for each species
- Suggested Land Libraries survey methods for each species
- Remote Camera Setup Guide
- Song Meter Setup Guide
- A link to the NatureMapr Landholder Hub

Brown Antechinus

Spotted-Tailed Quoll

Squirrel Glider

Biodiversity Conservation Trust Education Team

Alice McGrath

Environmental scientist leading the BCT's Biodiversity Education Program and Education team. Alice leads strategic implementation of the Program including project design, management of staff, contracts and all reporting to the BCT exec and board. Before her time with the BCT, Alice had a decades' experience delivering on-ground projects with landholders and communities and gets the reality of what it takes to run successful community engagement. She takes that on-ground experience to advocate for high-impact projects at a strategic management level and champions for strong partnerships. Alice has worked for the BCT for over 6 years and co-designed the Land Libraries project with her team.

Contact - alice.mcgrath@bct.nsw.gov.au

Joel Stibbard

Senior Ecologist for the BCT's Education team. Accredited Assessor under the Biodiversity Assessment Methodology (BAM) and has worked for the BCT for 6 years as an ecologist in the SH region. Joel has been with the Education team since 2021 and is lead on BCT's landholder education projects such as the Online Conservation Course, webinars and Land Libraries. Joel is particularly interested in highlighting urban biodiversity and the impact we can all have on protecting native biodiversity.

Contact - joel.stibbard@bct.nsw.gov.au

James Lidsey

Contract ecologist for the BCT's Education team. Accredited Assessor under the Biodiversity Assessment Methodology (BAM) and conduct various assessments and surveys, including general habitat assessments, vegetation surveys, vegetation stratification, botanical plot work, and targeted surveys for a diverse range of species across New South Wales. James also specialists in science communication, who enjoys developing a creative approach to presenting complex environmental issues to diverse audiences. James has been working with the Education team for the past year and will continue on as a contractor into 2025 and hopefully beyond.

Contact - james.lidsey@bct.nsw.gov.au

NatureMapr

NatureMapr is an Australian community-based citizen science platform.

Our mission is to empower anybody to report plant or animal information anywhere in Australia and ensure the information gets to the people that need to know about it. Every sighting uploaded to NatureMapr is identified by our community of expert moderators in conjunction with our artificial intelligence moderator, Carbon AI.
NatureMapr data is trusted and ingested by multiple government agencies at both state and commonwealth level, meaning that biodiversity and biosecurity information from the community makes its way into as many important decision-making databases as possible.

Our platform is built to Australian government standards and provides robust sensitive data handling controls with all information hosted in Australia on government certified infrastructure.
NatureMapr has a vested interest in community engagement and conservation, providing landholders with the opportunity to learn more about the biodiversity on their properties with technology at their fingertips.
To learn more about us, visit naturemapr.org/content/landholders

NatureMapr App

Apple
https://itunes.apple.com/au/app/naturemapr/id1042299523?mt=8

Android
https://itunes.apple.com/au/app/naturemapr/id1042299523?mt=8

Land Libraries Hub

The Biodiversity Conservation Trust and NatureMapr have partnered to develop a Land Librarians Hub on NatureMapr. From here you will be able to access records for your conservation agreement, view videos and how-to guides for collecting survey data, read and join in on discussions and check out significant sightings from other Land Librarians.

The how-to guides is your go-to page for mastering all the tools available in the Land Libraries Pilot. Whether you're new to the project or just need a quick refresher, these guides will walk you through everything you need to know—from methods for motion cameras and audio recorders, logging sightings, survey calendars and using the NatureMapr app. We've designed these guides to be simple and easy to follow, so you can get the most out of your experience with the Land Libraries Project. Dive in and start exploring!

Land Libraries Hub:
https://land-libraries.naturemapr.org/

NatureMapr
Australia's *expert verified citizen science platform*

Birds and Bats

The species below are locally significant to the area. Use this seasonal calendar to help plan biodiversity surveys on your property.

©greghadley1

Australasian Bittern

Habitat
Mainly freshwater environments with reedbeds and other wet areas.

Survey Method

©Jono Dashper

Eastern Bristlebird

Habitat
Low, dense, ground or understorey vegetation in coastal heath and shrubland.

Survey Method

©Emily Sonter

Gang-gang Cockatoo

Habitat
Tall mountain forests and woodlands, with dense shrubby understoreys.

Survey Method

©Marguerite B

South-eastern Glossy Black Cockatoo

Habitat
Coastal, inland woodlands, drier forest, Casuarina (she-oak) dominated watercourses.

Survey Method

©Nicole Brooker

Little Lorikeet

Habitat
Dry, open sclerophyll forests and woodlands, usually found in tall flowering eucalypts.

Survey Method

©Philip Dubbin

Varied Sitella

Habitat
Eucalypt woodlands and forest, preferring rough-barked trees.

Survey Method

© Gynther, I. DEHP 1999

Golden-tipped Bat

Habitat
Forages in rainforest and adjacent forests. Roosts in abandoned hanging bird nests.

Survey Method

©Michael Pennay

Large-eared Pied Bat

Habitat
Forages in fertile valleys and plains, as well as woodlands along watercourses.

Survey Method

© freddesmoulins

Little Bent-winged Bat

Habitat
Moist eucalypt forest, rainforest, vine thicket, and wet and dry sclerophyll forest. Generally found in well timbered areas.

Survey Method

©Michael Pennay

Eastern False Pipistrelle

Habitat
Prefers moist habitats with tall trees. Roosts in hollows but also loose bark or buildings.

Survey Method

©Ged Tranter

Southern Myotis

Habitat
Forages over streams and pools. Roosts in caves, shafts, hollows, buildings near water.

Survey Method

© G B Baker / Australian Museum

Eastern Coastal Free-tailed Bat

Habitat
Forages in forests and woodlands. Roosts in hollows, buildings or under bark.

Survey Method

©John Luly

Yellow-bellied Sheath-tail Bat

Habitat
Forages in most habitats within its range, including non-treed areas. Roosts in hollows.

Survey Method

©Michael Pennay

Greater Broad-nosed Bat

Habitat
Forages across treed habitats. Roosts in hollows but may use buildings.

Survey Method

©Phil Benstead

Large Bent-winged Bat

Habitat
Forages in forested areas. Roosts primarily in caves; also mines, tunnels and buildings.

Survey Method

SURVEY METHOD KEY

Spotlighting	Take photos on phone (NatureMapr app) or camera (NatureMapr website)	Remote Camera
Birdwatching	Record calls with NatureMapr app	Calls captured and analysed on Song Meter

The species below are locally significant to the area. Use this seasonal calendar to help plan biodiversity surveys on your property.

©Australian Museum

Watson's Tree Frog

Habitat
Brreding habitat in upper reaches of permanent streams and perched swamps. Non-breeding habitat is heath-based forests and woodlands.
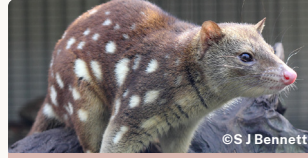
Survey Method

©Jkmalkoha

Rosenberg's Goanna

Habitat
Found in heath, open forest and woodland with termite mounds.

Survey Method

©S J Bennett

Spotted-tailed Quoll

Habitat
Various environments, including forests, woodlands, coastal heathlands and rainforests.

Survey Method

© James Ruming

Brush-tailed Rock-wallaby

Habitat
Prefers rocky habitats, including loose boulder piles, rocky outcrops, steep rocky slopes, cliffs, gorges and isolated rock stacks.

Survey Method

©Leo Berzins / DPE

Long-nosed Potoroo

Habitat
Dense understorey with grass-trees, sedges, ferns, heath or low shrubs of tea trees.

Survey Method

©Catching The Eye

Eastern Pygmy Possum

Habitat
Heathland, Banksia scrub and eucalypt forests.

Survey Method

©James Bennett

Yellow-bellied Glider

Habitat
Woodlands and forests, including both wet and dry sclerophyll forests.

Survey Method

©Third Silence Nature Photography

Southern Greater Glider

Habitat
Eucalypt forests and woodlands with numerous appropriately sized hollows.

Survey Method

Koala

Habitat
Coastal eucalypt forests to low inland woodlands.

Survey Method

©Jens Sommer-Knudsen

Powerful Owl

Habitat
Open forests and woodlands, sheltered gullies in wet forests with dense understoreys.

Survey Method

©Indra Bone

Masked Owl

Habitat
Forests, woodlands, timbered waterways and fringing open country.

Survey Method

©Tim Bawden

Sooty Owl

Habitat
Subtropical and warm temperate rainforest, and moist eucalypt forest.

Survey Method

SURVEY METHOD KEY

🔦	Spotlighting	🖼	Take photos on phone (NatureMapr app) or camera (NatureMapr website)	📷	Remote Camera
🔭	Birdwatching	📱	Record calls with NatureMapr app	🎙	Calls captured and analysed on Song Meter

The species below are locally significant to the area. Use this seasonal calendar to help plan biodiversity surveys on your property.

Nowra Heath Myrtle
Triplarina nowraensis

Habitat

Grows in moist heath close to stream channels or swampy slopes.

Cotoneaster Pomaderris
Pomaderris cotoneaster

Habitat

In dry sclerophyll forest, often on skeletal soil.

Solanum celatum
Solanum celatum

Habitat

Grows on hills and slopes in eucalypt woodland.

Chorizema parviflorum
Chorizema parviflorum

Habitat

Grows in heath and sclerophyll woodland and forest on heavy soils.

Illawarra Greenhood
Pterostylis gibbosa

Habitat

Grows among grass in sclerophyll forest.

Carrington Falls Pomaderris
Pomaderris walshii

Habitat

Grows in riparian shrubland and open grassy forest

Carrington Falls Grevillea
Grevillea rivularis

Habitat

Grows amongst shrubs in moist creekside on sandstone

Illawarra Zieria
Zieria granulata

Habitat

Grows on dry rocky ridges in sclerophyll forest to rainforest margins

Illawarra Irene
Irenepharsus trypherus

Habitat

Grows in moist forest, shrubland, rocky areas, gullies.

White-flowered Wax Plant
Cynanchum elegans

Habitat

Grows in rainforest gullies scrub and scree slopes.

Illawarra Socketwood
Daphnandra johnsonii

Habitat

Usually found in subtropical rainforest, mostly on rocky sites along gullies near creeks

Gossia acmenoides
Gossia acmenoides

Habitat

Grows in subtropical rainforest, but more commonly in dry rainforest.

Scrub Turpentine
Rhodamnia rubescens

Habitat

Widespread in warmer rainforest and on rainforest margins.

Magenta Lilly Pilly
Syzygium paniculatum

Habitat

Grows in subtropical and littoral rainforest on sandy soils or stabilized dunes, often near the sea.

Pimelea curviflora var. curviflora
Pimelea curviflora var. curviflora

Habitat

Confined to coastal areas on sandstone.

Summer

Category	Species	December	January	February	Method
Frogs and Reptiles	Rosenberg's Goanna	Peak Detection			
	Watson's Tree Frog	Harder to Detect		Detectable	
Birds	Australasian Bittern	Peak Detection		Detectable	
	Eastern Bristlebird	Detectable			
	Gang-gang Cockatoo	Detectable: Nesting		Detectable	
	South-eastern Glossy Black Cockatoo	Detectable			
	Little Lorikeet	Detectable: Nesting		Detectable	
	Varied Sitella	Detectable			
	Powerful Owl	Detectable			
	Masked Owl	Detectable			
	Sooty Owl	Detectable			
Mammals	Spotted-tailed Quoll	Detectable			
	Long-nosed Potoroo	Detectable			
	Brush-tailed Rock-wallaby	Detectable			
	Eastern Pygmy Possum	Detectable			
	Yellow-bellied Glider	Detectable			
	Southern Greater Glider	Detectable			
	Koala	Peak Detection: Calling	Harder to Detect		
Microbats	Yellow-bellied Sheath-tail Bat	Peak Detection			
	Greater Broad-nosed Bat	Peak Detection			
	Eastern False Pipistrelle	Peak Detection			
	Southern Myotis	Peak Detection			
	Eastern Coastal Free-tailed Bat	Peak Detection			
	Golden-tipped Bat	Peak Detection			
	Large Bent-winged Bat	Peak Detection			
	Large-eared Pied Bat	Peak Detection			
	Little Bent-winged Bat	Peak Detection			

Did You Know?

The Long-nosed Potoroo primarily eats fungi, but also consumes arthropods, seeds, larvae, and plant material such as roots and tubers found in the soil.

NSW GOVERNMENT

NatureMapr
Australia's expert verified citizen science platform

Autumn

Category	Species	March	April	May	Method
Frogs and Reptiles	Rosenberg's Goanna	Detectable			
	Watson's Tree Frog	Peak Detection: Breeding		Detectable	
Birds	Australasian Bittern	Detectable			
	Eastern Bristlebird	Detectable		Harder to Detect	
	Gang-gang Cockatoo	Detectable			
	South-eastern Glossy Black Cockatoo	Peak Detection: Nesting			
	Little Lorikeet	Detectable			
	Varied Sitella	Detectable			
	Powerful Owl	Peak Detection: Nesting			
	Masked Owl	Detectable: Nesting			
	Sooty Owl	Detectable: Nesting			
Mammals	Spotted-tailed Quoll	Detectable		Peak Detection	
	Long-nosed Potoroo	Detectable			
	Brush-tailed Rock-wallaby	Detectable			
	Eastern Pygmy Possum	Detectable	Harder to Detect		
	Yellow-bellied Glider	Peak Detection			
	Southern Greater Glider	Detectable			
	Koala	Harder to Detect			
Microbats	Yellow-bellied Sheath-tail Bat	Peak Detection	Detectable	Harder to Detect	
	Greater Broad-nosed Bat	Peak Detection	Detectable	Harder to Detect	
	Eastern False Pipistrelle	Peak Detection	Detectable	Harder to Detect	
	Southern Myotis	Peak Detection	Detectable	Harder to Detect	
	Eastern Coastal Free-tailed Bat	Peak Detection	Detectable	Harder to Detect	
	Golden-tipped Bat	Peak Detection	Detectable	Harder to Detect	
	Large Bent-winged Bat	Peak Detection	Detectable	Harder to Detect	
	Large-eared Pied Bat	Peak Detection	Detectable	Harder to Detect	
	Little Bent-winged Bat	Peak Detection	Detectable	Harder to Detect	

Did You Know?

Owls swallow their prey whole like most birds, and then regurgitate the non-nutritious parts of their prey. Several hours after eating they produce an 'owl pellet' from their gizzards, which is a great method to identify their presence.

NSW GOVERNMENT

NatureMapr
Australia's expert verified citizen science platform

Winter

Category	Species	June	July	August	Method
Frogs and Reptiles	Rosenberg's Goanna	Harder to Detect			
	Watson's Tree Frog	Detectable		Peak Detection: Breeding	
Birds	Australasian Bittern	Harder to Detect			
	Eastern Bristlebird	Harder to Detect		Detectable	
	Gang-gang Cockatoo	Detectable			
	South-eastern Glossy Black Cockatoo	Detectable		Detectable: Nesting	
	Little Lorikeet	Detectable		Detectable: Nesting	
	Varied Sitella	Detectable			
	Powerful Owl	Peak Detection: Nesting			
	Masked Owl	Detectable: Nesting			
	Sooty Owl	Detectable: Nesting			
Mammals	Spotted-tailed Quoll	Peak Detection			
	Long-nosed Potoroo	Detectable			
	Brush-tailed Rock-wallaby	Detectable			
	Eastern Pygmy Possum	Harder to Detect		Detectable	
	Yellow-bellied Glider	Detectable			
	Southern Greater Glider	Detectable			
	Koala	Harder to Detect		Detectable	
Microbats	Yellow-bellied Sheath-tail Bat	Harder to Detect			
	Greater Broad-nosed Bat	Harder to Detect			
	Eastern False Pipistrelle	Harder to Detect			
	Southern Myotis	Harder to Detect			
	Eastern Coastal Free-tailed Bat	Harder to Detect			
	Golden-tipped Bat	Harder to Detect			
	Large Bent-winged Bat	Harder to Detect			
	Large-eared Pied Bat	Harder to Detect			
	Little Bent-winged Bat	Harder to Detect			

Did You Know?

Spotted-tailed Quolls are mainland Australia's largest carnivore, but are rather elusive. They are best detected using remote cameras, and enticed into frame with some tasty tuna or sardines!

NSW GOVERNMENT

NatureMapr
Australia's expert verified citizen science platform

Spring

Category	Species	March	April	May	Method
Frogs and Reptiles	Rosenberg's Goanna	Detectable			
	Watson's Tree Frog	Peak Detection: Breeding	Detectable		
Birds	Australasian Bittern	Peak Detection			
	Eastern Bristlebird	Detectable			
	Gang-gang Cockatoo	Detectable	Detectable: Nesting		
	South-eastern Glossy Black Cockatoo	Detectable			
	Little Lorikeet	Detectable: Nesting			
	Varied Sitella	Detectable			
	Powerful Owl	Detectable			
	Masked Owl	Detectable: Nesting		Detectable	
	Sooty Owl	Detectable: Nesting		Detectable	
Mammals	Spotted-tailed Quoll	Detectable			
	Long-nosed Potoroo	Detectable			
	Brush-tailed Rock-wallaby	Detectable			
	Eastern Pygmy Possum	Detectable			
	Yellow-bellied Glider	Peak Detection			
	Southern Greater Glider	Detectable			
	Koala	Peak Detection: Calling			
Microbats	Yellow-bellied Sheath-tail Bat	Detectable	Peak Detection		
	Greater Broad-nosed Bat	Detectable	Peak Detection		
	Eastern False Pipistrelle	Detectable	Peak Detection		
	Southern Myotis	Detectable	Peak Detection		
	Eastern Coastal Free-tailed Bat	Detectable	Peak Detection		
	Golden-tipped Bat	Detectable	Peak Detection		
	Large Bent-winged Bat	Detectable	Peak Detection		
	Large-eared Pied Bat	Detectable	Peak Detection		
	Little Bent-winged Bat	Detectable	Peak Detection		

Did You Know?

Southern Myotis are microbats who hunt for fish and large insects over water. Detecting microbats relies upon recording and analysing their ultrasonic calls, using equipment like the Song Meter Mini Bat. The BCT will analyse the data and add them to your species list on the Landholder Hub.

NSW GOVERNMENT

NatureMapr
Australia's expert verified citizen science platform

Plants

Common Name	Scientific Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Nowra Heath Myrtle	*Triplarina nowraensis*	Detectable											
Cotoneaster Pomaderris	*Pomaderris cotoneaster*	Harder to Detect									Detectable		Harder to Detect
	Solanum celatum	Harder to Detect						Detectable					Harder to Detect
Chorizema parviflorum	*Chorizema parviflorum*	Harder to Detect							Detectable				Harder to Detect
Illawarra Greenhood	*Pterostylis gibbosa*	Harder to Detect								Detectable		Harder to Detect	
Carrington Falls Pomaderri	*Pomaderris walshii*	Detectable											
Carrington Falls Grevillea	*Grevillea rivularis*	Detectable											
Illawarra Zieria	*Zieria granulata*	Detectable											
Illawarra Irene	*Irenepharsus trypherus*	Detectable			Harder to Detect								D
White-flowered Wax Plant	*Cynanchum elegans*	Detectable											
Illawarra Socketwood	*Daphnandra johnsonii*	Detectable											
Gossia acmenoides	*Gossia acmenoides*	Detectable											
Scrub Turpentine	*Rhodamnia rubescens*	Detectable											
Magenta Lilly Pilly	*Syzygium paniculatum*	Harder to Detect		Detectable		Harder to Detect							
	Pimelea curviflora var. curviflora	Detectable		Harder to Detect						Detectable			

Did You Know?

You can also record many other examples of biodiversity through NatureMapr and add them to your species list, including invertebrates like this Blue-banded Bee, fungi, moss, and lichen. The more the merrier, so get snapping!

NatureMapr
Australia's expert verified citizen science platform

Song Meter Setup Guide

Site Selection

Find an area with flyways
Look for locations along existing tracks or areas where microbats are known to fly.

Look at the landscape
Focus on older vegetation or areas with large trees that have hollows, as these are suitable for targeting forest owls and koalas.

Avoid obstructions
Keep the Song Meter free of any foliage/branches that may obstruct sound.

Minimise traffic
Set away from busy roads and highways as low frequency truck/traffic noise can drown out calls (however property tracks that are used occasionally are good spots for microbats).

Select your target species
There are only a select number of species that will register on the Song Meter. Spend some time thinking about the target species, referring to the species profiles.
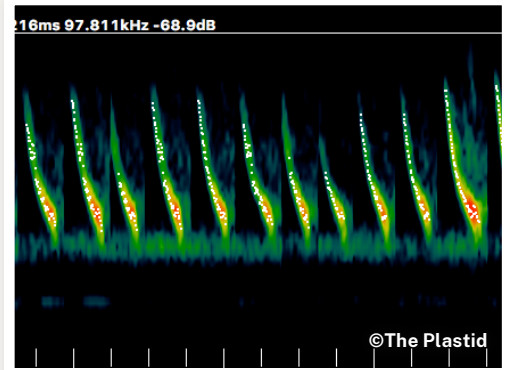
216ms 97.811kHz -68.9dB
©The Plastid
Southern Myotis Call

Recording Schedule

The tables below show the pre-programmed recording schedule that we will be using for Land Libraries, you'll notice that the device will switch from acoustic recording to ultrasonic recording after two weeks.

The recording schedule for both the acoustic and ultrasonic microphones are programmed to start recording during dawn and dusk. This is to capture as many species as possible as activity is high during these periods.

October- Acoustic		November- Ultrasonic	
Week 1	Week 2	Week 3	Week 4
13th - 19th	20th - 26th	27th Oct - 2nd Nov	3rd - 9th

Acoustic Recording	2 Hours Before: → 2 Hours After:

Ultrasonic Recording	
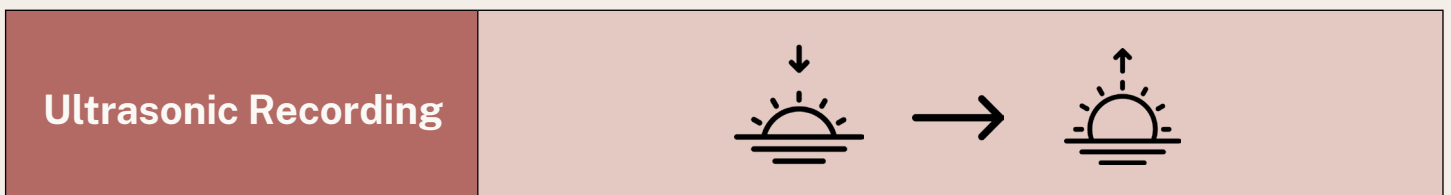
Device Pairing and Installation

Install the app

- If you don't have the Song Meter Configurator app, download it for free from the Apple or Google Play store on your mobile device.

Apple Store

Android Store

Prepare the device

- Insert 8 batteries into the unit. Turn on the unit using the power switch. The middle 'Recording and SD card' lights may flash green.

Pair the device

- Press and hold the PAIR button until the leftmost 'Bluetooth' light flashes green, indicating the unit is ready to pair.
- Open the Song Meter Configurator app on your phone.
- Check if the app detects any recorders showing 'LL' and a reference number.
- Tap the PAIR button on the app to pair your phone with the unit. The text should turn green, and the Bluetooth light should stay on.
- A pop-up message will appear asking if you want to set the recorder's time zone to your mobile device's time zone. Select YES.
- Do not change the name of the device. The name of the unit has been preset for you and should be prefixed with 'LL' for Land Libraries, and a reference number.

Mount the unit

- Close the unit and attach securely to a tree with the provided strap at about shoulder height (1.5 -2m is a good standard height).
- When closing the device ensure nothing is obstructing the rubber seal on the inside of the device.

Enjoy and share!

- Once collected, keep the SD card in the device as the BCT will analyse the data for you. You may copy the files if desired, but please do not delete from the card!

EASTERN COASTAL FREETAIL BAT
©G B Baker / Australian Museum

SOUTHERN MYOTIS
©Ged Tranter

SOOTY OWL
©Tim Bawden

Tips and Tricks

- Access tutorial videos through the app's info and tutorial buttons for additional help.
- Remember, the unit is called the Song Meter Mini Bat 2.
- Refer to the app's tips for setting up your Song Meter Mini Bat for optimal results.

Land Libraries Hub:
https://land-libraries.naturemapr.org/

NatureMapr
Australia's expert verified citizen science platform

Land Libraries
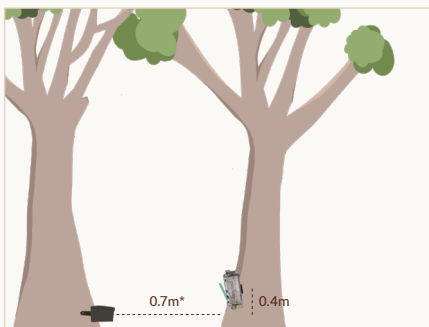*Check-in with nature, Check-out the data*

Remote Camera Setup Guide

Here's a step-by-step guide for setting up and using the remote camera provided by the Biodiversity Conservation Trust (BCT) for your citizen science journey.
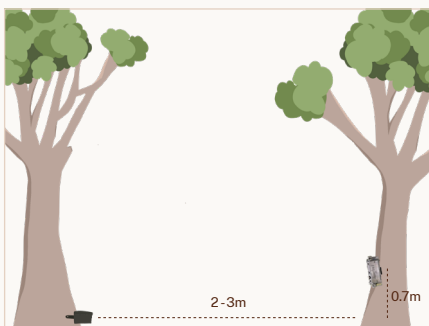
Remember you can view the how-to-guides, upload your results and share your discoveries on the Land Libraries Hub by **scanning the QR Code** on the back.

Configuration	Terrestrial Small (external lens)*	Terrestrial Small to Medium	Terrestrial Medium to Large	Arboreal (external lens)*	Arboreal Mammal
Target Species	Small mammals (e.g. Planigale, Antechinus, Bush Rat)	Small to medium mammals (e.g. Bandicoots, Potoroos)	Medium to Large mammals (e.g. Wombat, Kangaroo, Wallabies, Dingo, Quoll)	Small mammals (e.g Feathertail Glider, Eastern Pygmy Possum)	Medium mammals (e.g. Gliders and Possums, Koala)
Lure	Oats, peanut butter and honey. Meat lure (e.g. tuna)			Oats, peanut butter and honey.	
Height	0.4m	0.4m	0.7m	2m	2m
Camera to Lure Distance	0.7m*	1.5-2m	2-3m	0.7m*	1.5-2.5m

Distance would depend on the magnification of the lens (not provided). Focal distance guide: 1x mag = 70-90cm, 1.5x mag = 30-50cm

0.7m*   0.4m
Terrestrial Small (external lens)

BROWN ANTECHINUS

2-3m   0.7m
Terrestrial Small/Medium/Large.

SPOTTED-TAILED QUOLL

1.5-2.5m   2m
Arboreal mammals.

SQUIRREL GLIDER

Site Selection and Preparation

Guide distance and angle

- Use the table and images to support installation.
- Use the provided strings to guide the distance and angle for lures in all setups.

Select a level area

- Choose sites where the ground is relatively level. On slopes, follow across the slope as much as possible.

Trim vegetation

- Clear all vegetation between the camera and the lure/ focal point to minimise blank images and enhance animal identification. Watch out for low-hanging branches.

Avoid blocking access

- Do not pile trimmed vegetation near the camera's field of view, as this can impede small animal access.

Deploy cameras within range

- Place both cameras within 400 meters of each other if possible.

Same but different approach

- We recommend moving the cameras to a new habitat every few weeks (e.g., forests, grasslands).

Target areas of activity, or entice them in

- Position them at 45 degrees across animal paths or fallen trees.
- For arboreal cameras, target trees with canopy connectivity and signs of glider activity (e.g., hollows, scratches, sap).
- For arboreal setups, increase honey to attract gliders. You can also add honey on the outside of the lure and on the trunk of the tree as a further incentive
- A nailed-down tuna can is attractive for meat eaters too!

Check batteries and SD card

- Ensure batteries are fully charged and the SD card is empty. Both should last for 3 months; however, periodic checks and recharges are recommended.

An external lens can be a great way to identify small critters. This simple but effective setup used reading glasses and blue tak!

Camera Setup

Attach the camera

- Secure the camera to a tree greater than 20cm in diameter using the camera strap, at the recommended height. Avoid dead trees.

- If no suitable trees are available, use a metal star picket or stake.

Position the camera

- Place cameras facing south (southeast to southwest) to avoid sun glare and shadows.

Install the lure

- For ground-dwelling mammals, use the lure tubes to house the bait and attach them to the ground with provided pegs, or screw into the base of a tree or fallen log.

- For arboreal setups, mount the lure on trees greater than 100 cm in diameter.

- While lures increase the likelihood of detection, they are not essential.

Align and angle the camera

- Align the camera with the lure or intended focus area (such as an animal trail or fallen log). When using trails, we recommend aligning them at a 45 degree angle to the trail.

- Precision is important if using an external lens, so string has been provided to help align the camera lens with the lure as per the image. Stretch out the string and keep it parallel with the line on the side of the camera, and use a measuring tape if necessary to get the distance right.

- For standard setups (no external lens), the 'WALKTEST' function on the camera will suffice with aligning the camera and lure (see below)

- Use plastic wedges, rocks or sticks to angle the camera if necessary (this is likely required for terrestrial setups)

Switch on the camera, test and arm the camera

- The camera settings are preconfigured

- Open the case, switch the camera on and press 'OK' to arm the camera (if no WALKTEST is needed). Close the door. The red light will flash for 10 seconds and stop when the camera is armed.

- To test the alignment first, press the '>' to find 'WALKTEST' and press 'OK'. Close the door and walk in front of the camera where you expect to capture images. A red flashing light tells you the camera can see you!

- After WALKTEST, the camera will automatically arm after 2 minutes of no motion. The red light will flash for 10 seconds and stop when the camera is armed.

Enjoy and share!

- Once collected, keep the SD card in the device as the BCT will analyse the data for you. You may copy the files if desired, but please do not delete from the card!

Land Libraries Hub:
https://land-libraries.naturemapr.org/

NSW GOVERNMENT

NatureMapr
Australia's expert verified citizen science platform

Check-in with Nature, Check out the Data

Notes