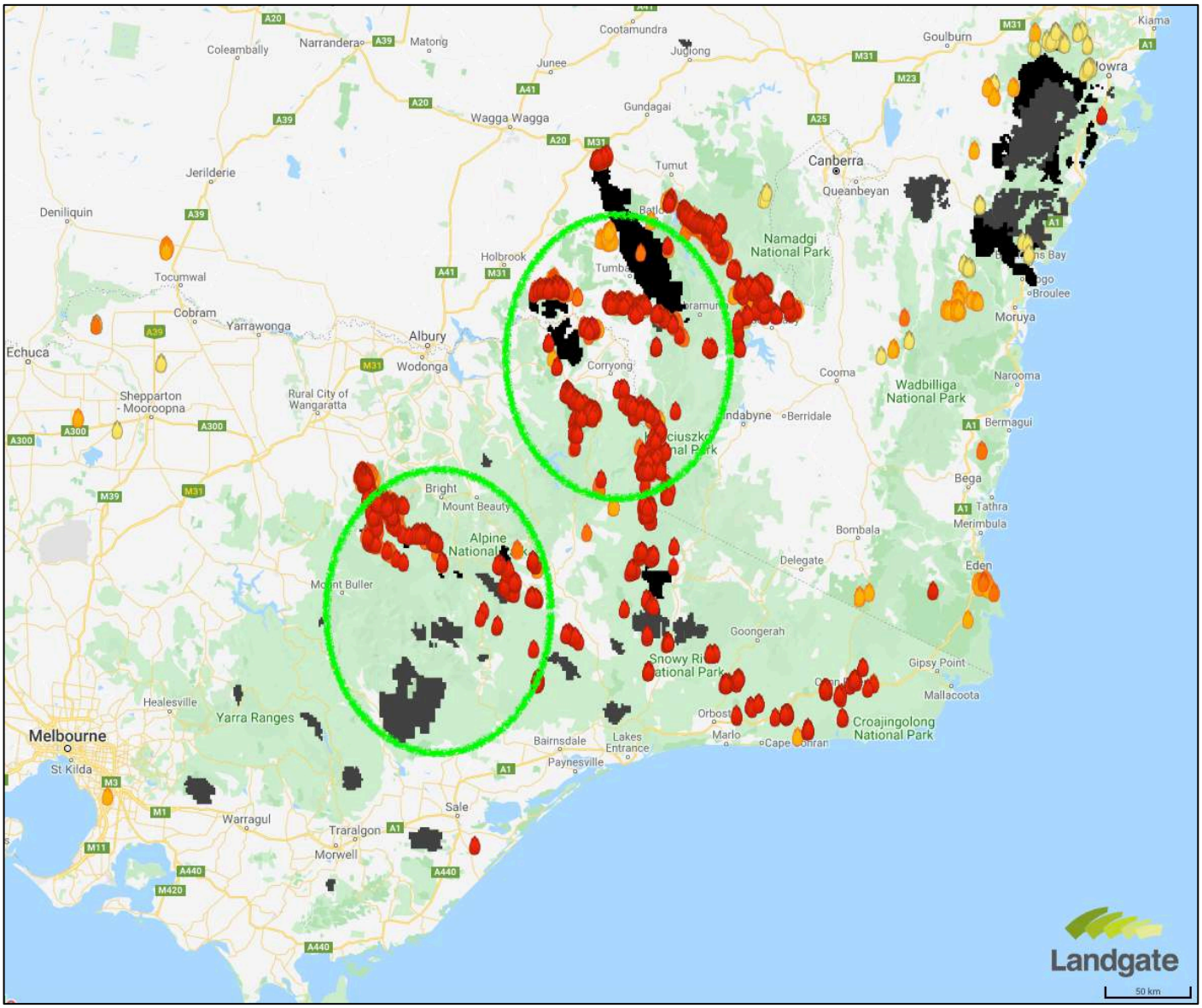
Hollow Using Species List & Nest Box Designs

For the High Country Bushfire Zones



Compiled by Alice McGlashan
Facebook: https://www.facebook.com/groups/nestboxtales/
Website: www.nestboxtales.com
Sharing stories and knowledge about nest boxes for Australian native animals to encourage everyone to improve habitat for wildlife.

Background

Studies across Australia have found that fire tends to reduce the number of hollows in an ecosystem for the short to medium term (0-50+ years). The hotter and more damaging the fire, the greater the loss of tree hollows. Consider an old, large, wizened, partially dead tree with many small to large sized hollows, being somewhat of an apartment block for hollow using wildlife. Trees such as these do not tend to survive very destructive bushfires, such as those that have occurred during this bushfire season (summer 2019-20)

These same studies have found that hollow using species don't initially return to badly burnt areas, and when they do, the numbers are extremely low compared to before the fire. By comparison, non-hollow using species generally bounce back relatively quickly and in a few years are similar in numbers to those pre-fire. This provides an indication that it is likely to be the lack of hollows, rather than food sources and habitat other than tree hollows, that are the limiting factor for the return of hollow using species to recently burnt areas.

Aside: the studies to date have been on smaller patch burns or areas that are dwarfed in size by the vast expanses of forests burnt, particularly in the Eastern states of Australia during the bushfire season of 2019-20.

There are a large number of Australian native animals, particularly birds and mammals that need to use tree hollows for shelter, or to breed. There are about 114 bird species, and about 83 mammal species that require tree hollows either for shelter and or to breed. There are also many different lizard, snake, and frog species that also use tree hollows both in trees and on the ground.

Without tree hollows, those birds that only use hollows to nest, simply won't breed. Bird and mammal species that need tree hollows to sleep by day or night such as gliders, owls, and many possum species, risk being taken by predators, succumbing to the cold during the winter months, or perishing in search of a tree hollow in someone else's territory.

We can give any hollow using bushfire survivors, and future residents of the ecosystems scorched in this season's expansive bushfires a helping hand, by adding artificial hollows for them to use.

This booklet series has been compiled from existing online resources to enable volunteer nest box makers to quickly learn how to make nest boxes, for the species that occur within their region.

I have collated the information in this booklet from the following organisations and resources:

Birdlife Australia: https://birdlife.org.au/images/uploads/education_sheets/INFO-Nestbox-technical.pdf

Birds in Backyards:
http://www.birdsinbackyards.net/Nest-Box-Plans

Greater Sydney Local Land Services:
https://www.wires.org.au/wildlife-info/wildlife-factsheets/Wildlife-Nest-Boxes-LLS.pdf

East Gippsland & Maffra and Districts Landcare Networks:
https://egln.org.au/wp-content/uploads/2013/07/Nest-box-booklet.pdf

A bit about me

I completed a Bachelor Degree of Geomatic Engineering and Science (geology) quite a few years ago now, and worked as a Geologist and GIS Analyst during my first career.

More recently I returned to university, completing a Graduate Diploma of Psychology, also a Master of Environmental Science and Law, specialising in ecosystem and wildlife management, biodiversity law, water law, and climate change law.

I have enjoyed exploring wilderness areas since a very young age, bird watching, frog spotting, and observing the complex interactions within Australia's diverse ecosystems. I used all of my 7th year birthday money to purchase a Slater's Field Guide to Australian Birds.

More recently, I purchased a small regenerating bushland property near Canberra. In 2016, I installed a first batch of 15 nest boxes for all the known local native hollow using species on my property, with several of them becoming occupied almost immediately. However there were also a number of unexplained failures.

After discovering that many of my questions about nest box utilisation and predation of occupants and eggs could not be answered by existing published research, I have purchased an ever expanding collection of wildlife cameras, temperature recording Thermocrons, polycarbonate plastic for possum guards, arborist (tree climbing) equipment, and more nest boxes, to figure out the causes of nesting failures, and to test different strategies to increase the occupancy of nest boxes by species that were struggling to use them successfully.

I have since learnt a lot about improving the occupation rates and bird nesting success of nest boxes for the different local native species, with key considerations discovered to be the predator and competitor species, bedding preferences, installation height, and installation aspect to avoid the hot afternoon sun. Late last year I created the NestBoxTales website and Facebook group to share what I had learnt, and to encourage other people across Australia to install nest boxes for hollow using wildlife. Install, and they absolutely will come!

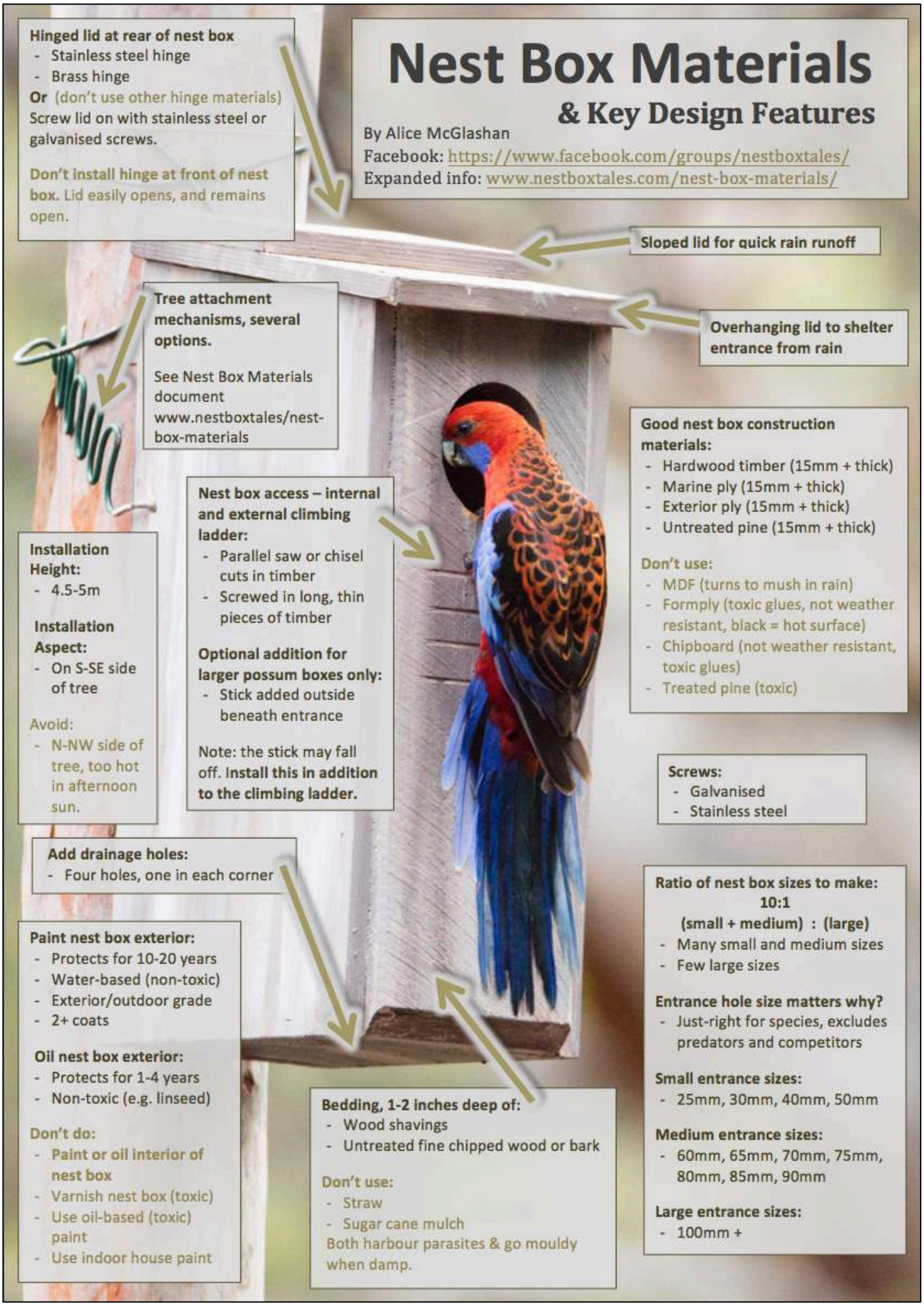
High Country Fire Zones Species List

For the bird list see the next page.

Mammals	**Entrance diameter**	**Nest box height**
Agile Antechinus	30mm	2-4m
Dusky Antechinus	30mm	2-4m
Feathertail Glider	30mm	2m
Greater Glider (southern subsp.)	130mm	6-10m
Squirrel Glider (V)	50mm	4-8m
Sugar Glider	50mm	4-8m
Yellow-bellied Glider (V)	80mm	6-8m
Microbats (several species) (V)	30mm hole, 20mm slot	3-5m
Common Brushtail Possum	90-150mm	4-8m
Mountain Brushtail Possum	90-150mm	4-8m
Leadbeater's Possum (T) – old growth Mountain Ash, Alpine Ash		
Eastern Pygmy Possum (V)	25mmm	
Mountain Pygmy Possum (E)	25mmm	
Ringtail Possum	60-80mm	4-8m

High Country Bushfire Zones Species List Contd.

Birds	Entrance diameter	Nest box height
Southern Boobook	150mm	5m
Powerful Owl		10m +
Australian Owlet Nightjar	65mm	3-6m
Australian Shelduck	120mm	3m
Pacific Black Duck	120mm	3m
Pink-eared Duck		
Wood Duck	120mm	5-6m
Chestnut Teal	80-120mm	1.5m
Grey Teal	80-120mm	1.5m
Red-backed Kingfisher	75mm	5-10m
Sacred Kingfisher	75mm	5-10m
Laughing Kookaburra	180mm arch	5-10m
Gang-gang Cockatoo	110-140mm	6m +
Glossy Black Cockatoo	200mm	8-10m
Sulphur-crested Cockatoo	150mm	5m +
Yellow-tailed Black Cockatoo	200mm	8-10m
Little Corella	120-150mm	6m
Long-billed Corella	150mm	
Galah	120-150mm	6m
King Parrot	100-120mm protruding entrance	6m +
Red-rumped Parrot	50-60mm	5m
Superb Parrot		
Crimson Rosella	70-100mm	5-6m
Eastern Rosella	65-80mm	5-6m
Spotted Pardalote	30mm tube	5m
Striated Pardalote	30mm tube	5m
Chestnut-rumped Thornbill		
Grey Shrike-Thrush	100mm	3-6m
Southern Whiteface		
Red-browed Treecreeper	50-70mm	3-5m
White-throated Treecreeper	50-70mm	3-5m
Dollarbird	70mm	6-10m
Tree Martin	30mm	2m +


Nest Box Materials
& Key Design Features
By Alice McGlashan
Facebook: https://www.facebook.com/groups/nestboxtales/
Expanded info: www.nestboxtales.com/nest-box-materials/
Hinged lid at rear of nest box
- Stainless steel hinge
- Brass hinge
Or (don't use other hinge materials)
Screw lid on with stainless steel or galvanised screws.
Don't install hinge at front of nest box. Lid easily opens, and remains open.
Sloped lid for quick rain runoff
Overhanging lid to shelter entrance from rain
Tree attachment mechanisms, several options.
See Nest Box Materials document www.nestboxtales/nest-box-materials
Good nest box construction materials:
- Hardwood timber (15mm + thick)
- Marine ply (15mm + thick)
- Exterior ply (15mm + thick)
- Untreated pine (15mm + thick)
Don't use:
- MDF (turns to mush in rain)
- Formply (toxic glues, not weather resistant, black = hot surface)
- Chipboard (not weather resistant, toxic glues)
- Treated pine (toxic)
Nest box access – internal and external climbing ladder:
- Parallel saw or chisel cuts in timber
- Screwed in long, thin pieces of timber
Optional addition for larger possum boxes only:
- Stick added outside beneath entrance
Note: the stick may fall off. Install this in addition to the climbing ladder.
Installation Height:
- 4.5-5m
Installation Aspect:
- On S-SE side of tree
Avoid:
- N-NW side of tree, too hot in afternoon sun.
Screws:
- Galvanised
- Stainless steel
Add drainage holes:
- Four holes, one in each corner
Ratio of nest box sizes to make:
10:1
(small + medium) : (large)
- Many small and medium sizes
- Few large sizes
Entrance hole size matters why?
- Just-right for species, excludes predators and competitors
Small entrance sizes:
- 25mm, 30mm, 40mm, 50mm
Medium entrance sizes:
- 60mm, 65mm, 70mm, 75mm, 80mm, 85mm, 90mm
Large entrance sizes:
- 100mm +
Paint nest box exterior:
- Protects for 10-20 years
- Water-based (non-toxic)
- Exterior/outdoor grade
- 2+ coats
Oil nest box exterior:
- Protects for 1-4 years
- Non-toxic (e.g. linseed)
Don't do:
- Paint or oil interior of nest box
- Varnish nest box (toxic)
- Use oil-based (toxic) paint
- Use indoor house paint
Bedding, 1-2 inches deep of:
- Wood shavings
- Untreated fine chipped wood or bark
Don't use:
- Straw
- Sugar cane mulch
Both harbour parasites & go mouldy when damp.

Materials and Tools for Making Nest boxes

Tools and materials

- Untreated hardwood timber, marine ply or exterior ply.
- Stainless steel or galvanised screws.
- Stainless steel or brass hinge, and external hinge screws for the lid.
- Hole saw or jig saw for making entrance holes.
- Hand saw or power saw to cut the panels.
- Screwdriver or power drill (best to use screws, not nails).
- Ruler/tape measure.
- Pencil for marking out design.
- Sandpaper to smooth rough edges.
- One to two inches of sawdust or wood shavings (from untreated wood), or untreated fine wood or bark chip for bedding, to emulate a decaying hollow.
- Paint the nest box with at least two coats of a water-based (non-toxic) external quality paint to significantly increase the durability of the nest box. Choose a pale colour such as Flooded Gum (Dulux colour), to prevent overheating of occupants on hot sunny days.

Installing Nest Boxes

- Place the nest box away from human disturbance, busy roads, and driveways, and also out of reach of non-native predators such as cats, dogs and foxes.
- Install in a location that is protected from direct sunlight during hot summer afternoons (east to south-east side of tree).
- The installation height sweet spot is 4-5m. Most species will use nest boxes at this height range, and a tall ladder will enable easy installation and access for monitoring and maintenance.
- Installation within the cover of leafy branches is preferred by many species, but some species do prefer open aspects for easy access such as microbats.
- Tall ladder, ladder holder and person installing the nest box.

Monitoring and Maintaining Nest Boxes

- Monitoring is important to enable removal of feral pest species, such as European bees, Indian Mynas and Starlings.
- Annually or bi-annual nest boxes checks enables problems such as feral species invasion to be rectified, and repairs to be made so that native animals can continue to use the nest box.

Nest box making choose your own adventure:

2 options

1) Use the same nest box design

Make a series in the same nest box dimensions and vary the entrance size for different species, using **Birdlife Australia's Crimson Rosella, and Red-rumped Parrot nest box designs**.

See the following page for instructions.

2) Make a range of different nest boxes from the included designs.

See the page after the next, for list of nest box designs included in this booklet.

Three Sizes for Many Species

Make a series **in the same nest box dimensions** and **vary the entrance size** for different species.

Please make a ratio of: 10 small & medium nest boxes : 1 large nest boxes.
10:1

Small Nest Box Dimensions (Birdlife Red-rumped Parrot nest box)

Width	Length	Height
200mm	200mm	500

Entrance Diameter	Species
30mm	Mountain + Eastern Pygmy Possum, Feathertail Glider, Antechinus species, Tree Martin
40mm	Feathertail Glider, Antechinus species, Tree Martin
50mm	Sugar Glider, Squirrel Glider, Treecreeper species
60mm	Red-rumped Parrot, Treecreeper species

Medium Nest Box Dimensions (Birdlife Crimson Rosella nest box)

Width	Length	Height
230mm	260mm	500mm

Entrance Diameter	Species
40mm	Sugar Glider, Musk Lorikeet, Little Lorikeet
50mm	Squirrel Glider, Sugar Glider,
65mm	Ringtail Possum, Eastern Rosella
75mm	Crimson Rosella, Eastern Rosella, Dollarbird, Ringtail Possum, Australian Owlet-nightjar, Sacred Kingfisher

Large Nest Box Dimensions (Scaled up Birdlife Crimson Rosella nest box)

Width	Length	Height
250mm	300mm	500mm

Entrance Diameter	Species
80mm	Yellow-bellied Glider, Ringtail Possum, Crimson Rosella, Eastern Rosella
90mm	Ringtail Possum, Crimson Rosella
100mm	Brushtail Possum, Owl species, King Parrot, Galah
130mm	Greater Glider (southern sub-species), Brushtail Possum, Duck species, Owl species, Gang-gang Cockatoo, Galah, Corella species
150mm	Brushtail Possum, Duck species, Owl species, Galah, Sulphur-crested Cockatoo, Corella species

Nest box designs

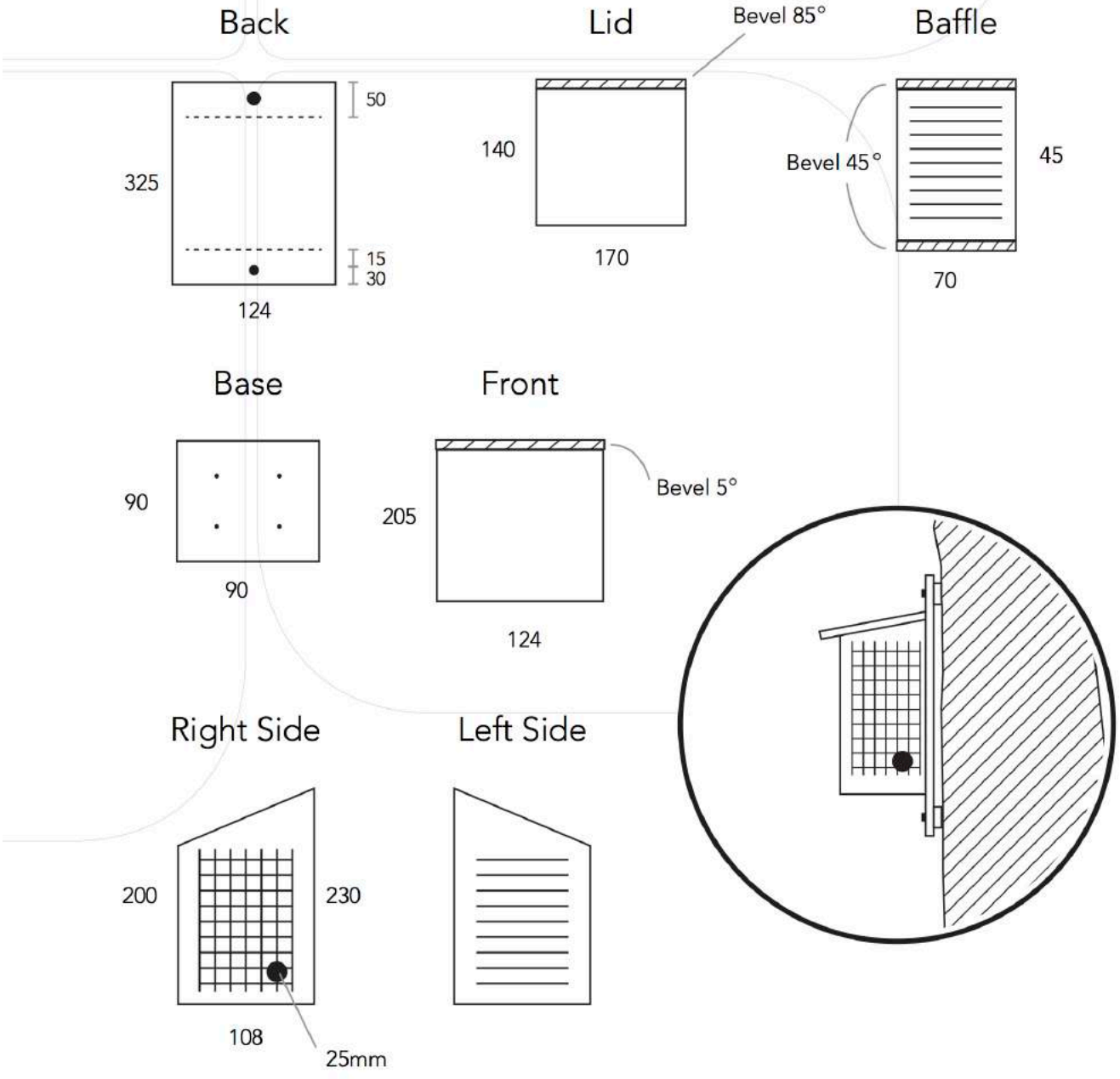
The following nest box designs were found for species that occur within your bushfire-affected region:

- **Feathertail/Antechinus/Pygmy Possum**
- **Sugar Glider**
- **Ringtail Possum**
- **Microbat**
- **Owlet Nightjar**
- **Boobook Owl**
- **Pacific Black Duck**
- **Grey Teal/Chestnut Teal**
- **Laughing Kookaburra**
- **Turquoise Parrot**
- **Eastern Rosella**
- **Crimson Rosella**
- **Grey Shrike-Thrush**
- **Pardalote**
- **Treecreeper**
- **Anti-Indian Myna baffle design**

There are also nest box dimensions for other species (not all within your area) provided by Birdlife Australia – added after the nest box designs.

Happy making!

Feathertail/Antechinus/Pygmy Possum (17mm ply)



Prepare the Pieces

1. Cut timber to the dimensions below to make the pieces. Dimensions are for 17 mm ply and will need to be adjusted for other materials.
2. Bevel cut the rear edge of the lid at 85°, and the front 5° to match. This is critical so the lid will sit!
3. (optional) Bevel the edges of the baffle to help it fit snug
4. Use a hole saw to cut the large entrance hole (25 mm) in the right side panel. A side entrance is easier access for possums than a front one.
5. Prepare for assembly. Drill pilot holes into plywood before screws to avoid splitting. It's good to countersink the holes as well in preparation for the screws. It can help to tack together the box with a nail gun before inserting the screws – this makes it easier to assemble and ensures everything fits together well.
6. Drill holes for the support screws in the back panel. Drill some small holes in the base panel for drainage
7. Use a bench saw or router to cut a grid in the side panel, internal sides, and both sides of the baffle. This will give animals something to grip when climbing into the box – or you can place a small branch inside for them to use.

Construction

8. Prepare the joints with Silastic or similar sealant and screw together the back, front, sides and base of the box
9. Nail or screw the baffle inside the box. The baffle gives the box some protection from the outside elements and reduces the use by pest species or predators
10. Install the lid. (Optional) Install the piano hinges to connect the lid and the main box. You may need to add a hook & eye latch to keep the lid firm on these smaller boxes

Installation

12. Select a suitable site for your installation and erect a ladder (remember safety first)
13. Add two handfuls of your insulation (e.g. paperbark etc) to make the box cosy
14. (optional) Dip the installation screws in organic lubricating oil (e.g. Lanotec) to coat and avoid rusting
15. Carefully climb the ladder and install the upper support screw.

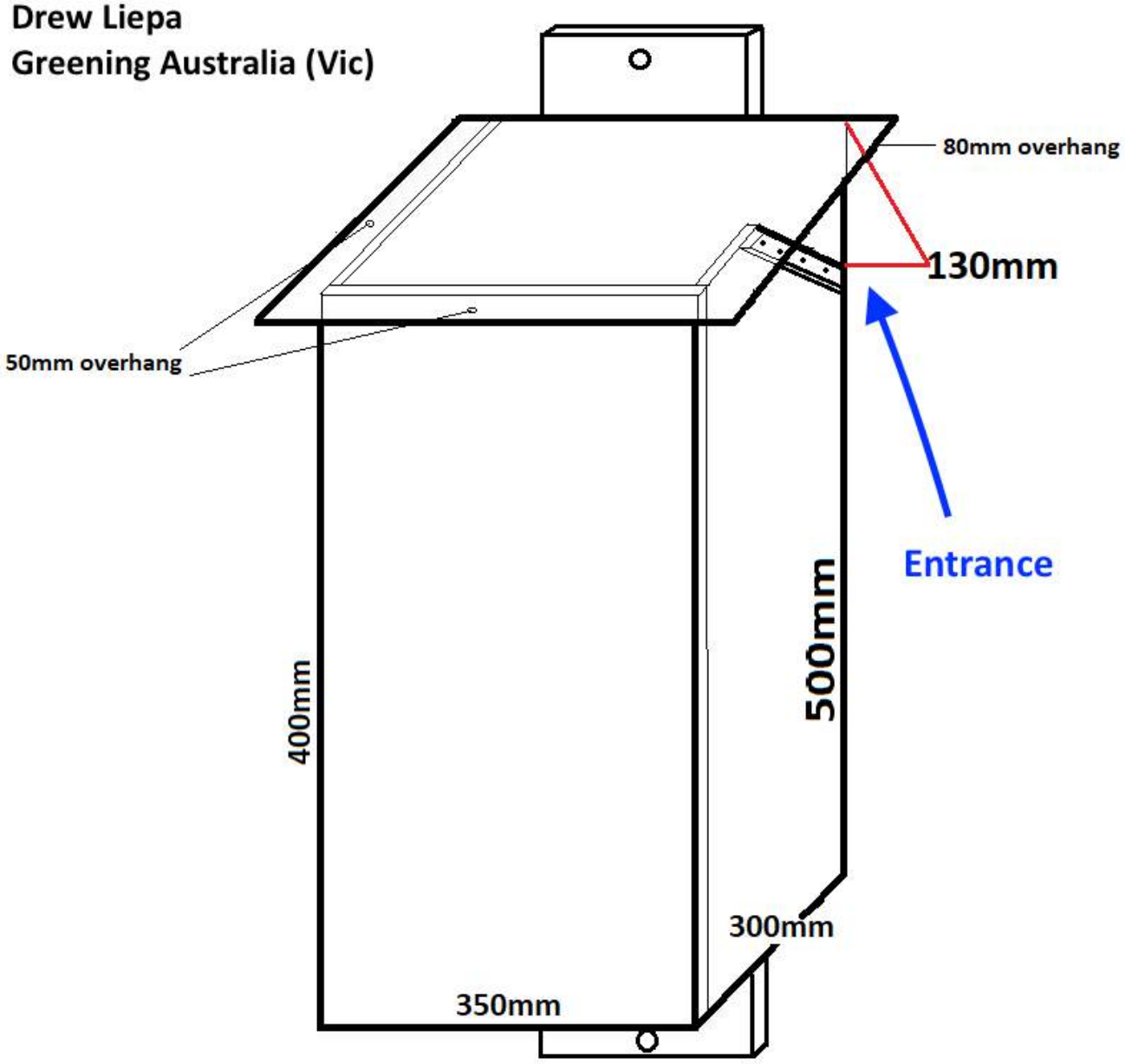
    a. Drill a 3/16 hole into the tree at the designated height

    b. Screw in the upper 100mm Tek Screw through the box and PVC spacer

    c. Now screw in the lower screw and use a hex driver to tighten if necessary.
16. Your nest box should now be ready for use. Congratulations!

Greater Glider nest box design

Drew Liepa
Greening Australia (Vic)



Greater Glider nest box design instructions (please contact Drew if you make this nest box – a project is underway):
Basic version is made with 18MM MARINE PLY.
We line the box with shredded bark and leaves before screwing the lid down.
We paint the outside with a light green to help prevent them deteriorating.
THE TRIANGLE 130MM IS THE ENTRY HOLE AND IS ALWAYS UP AGAINST THE TREE.
You can use a hole saw and cut round hole although we find the triangle works really well. One of the pics shows the triangle box being used.
NO DRAINAGE HOLES.
It's important the box is well sealed. We did put a few bits of wood on top for grip but the GG's have massive claws and don't really need them. Easy to do though.
We installed all ours at A HEIGHT BETWEEN 15 AND 30M using tree climbers. This will depend on the tree species and the overall height of the trees in your landscape.
All our nest boxes are positioned on the SOUTH EASTERN side of the tree.
This is important to prevent over heating in summer.
The basic version has been shown to work without insulation
We install on average 10 PER HA.
NB. Consolidate the existing habitat that's not burnt. GG's don't appear to use burnt out hollows for years.

Drew Liepa I Senior Program Officer | Greening Australia
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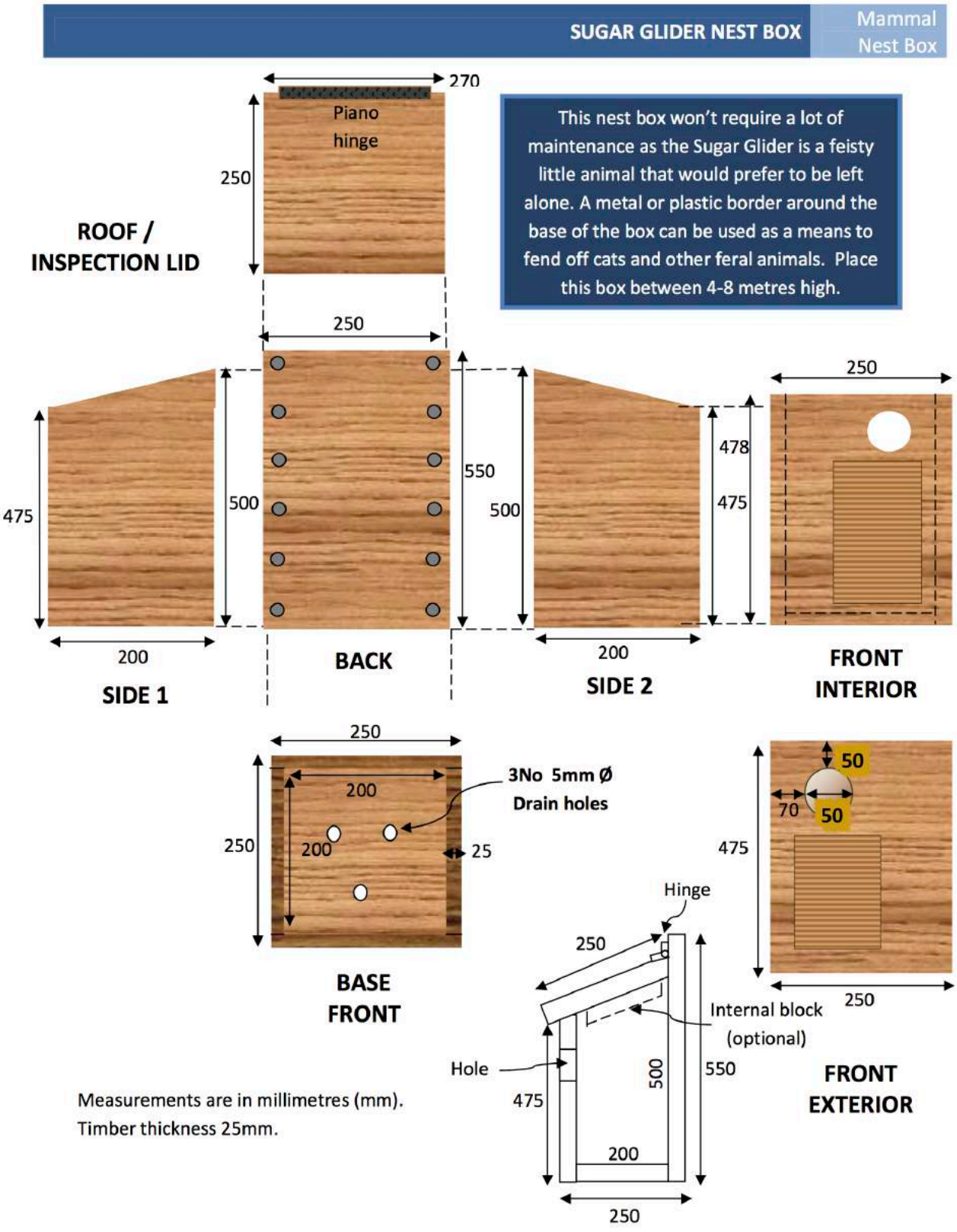
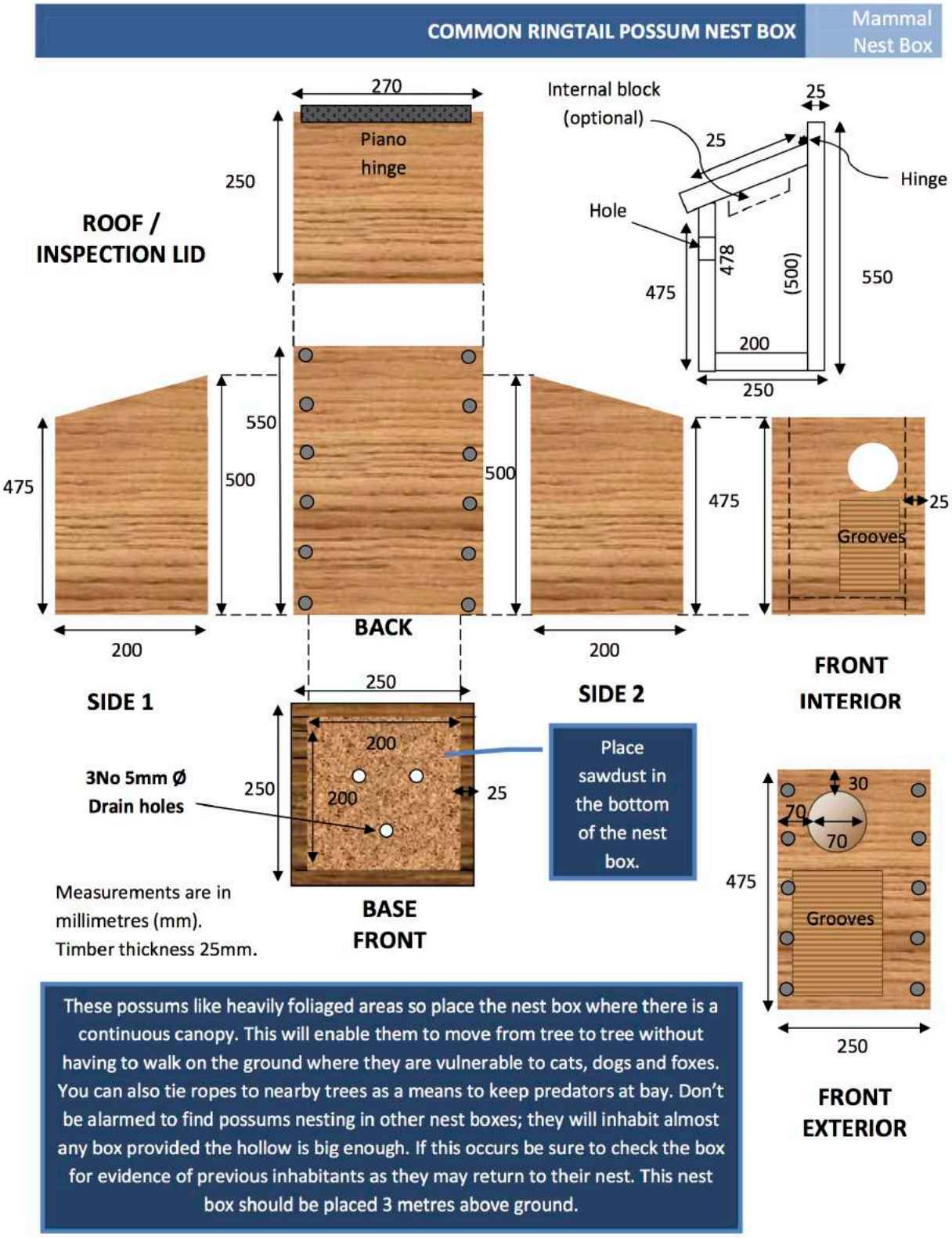
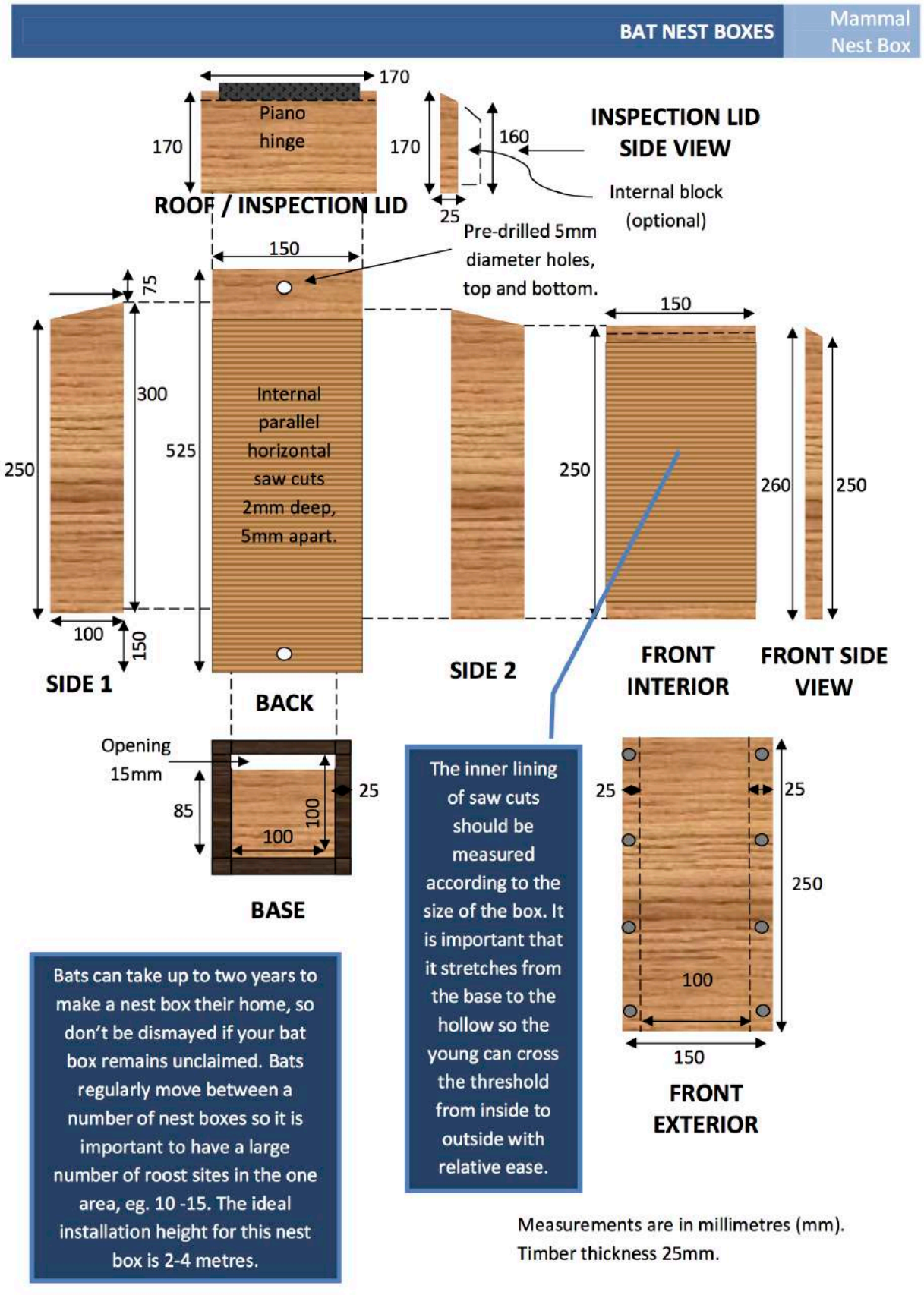


Nest Boxes for the Gippsland Region
By: East Gippsland & Maffra and District Landcare Network



These possums like heavily foliaged areas so place the nest box where there is a continuous canopy. This will enable them to move from tree to tree without having to walk on the ground where they are vulnerable to cats, dogs and foxes. You can also tie ropes to nearby trees as a means to keep predators at bay. Don't be alarmed to find possums nesting in other nest boxes; they will inhabit almost any box provided the hollow is big enough. If this occurs be sure to check the box for evidence of previous inhabitants as they may return to their nest. This nest box should be placed 3 metres above ground.

Nest Boxes for the Gippsland Region
By: East Gippsland & Maffra and district Landcare Network

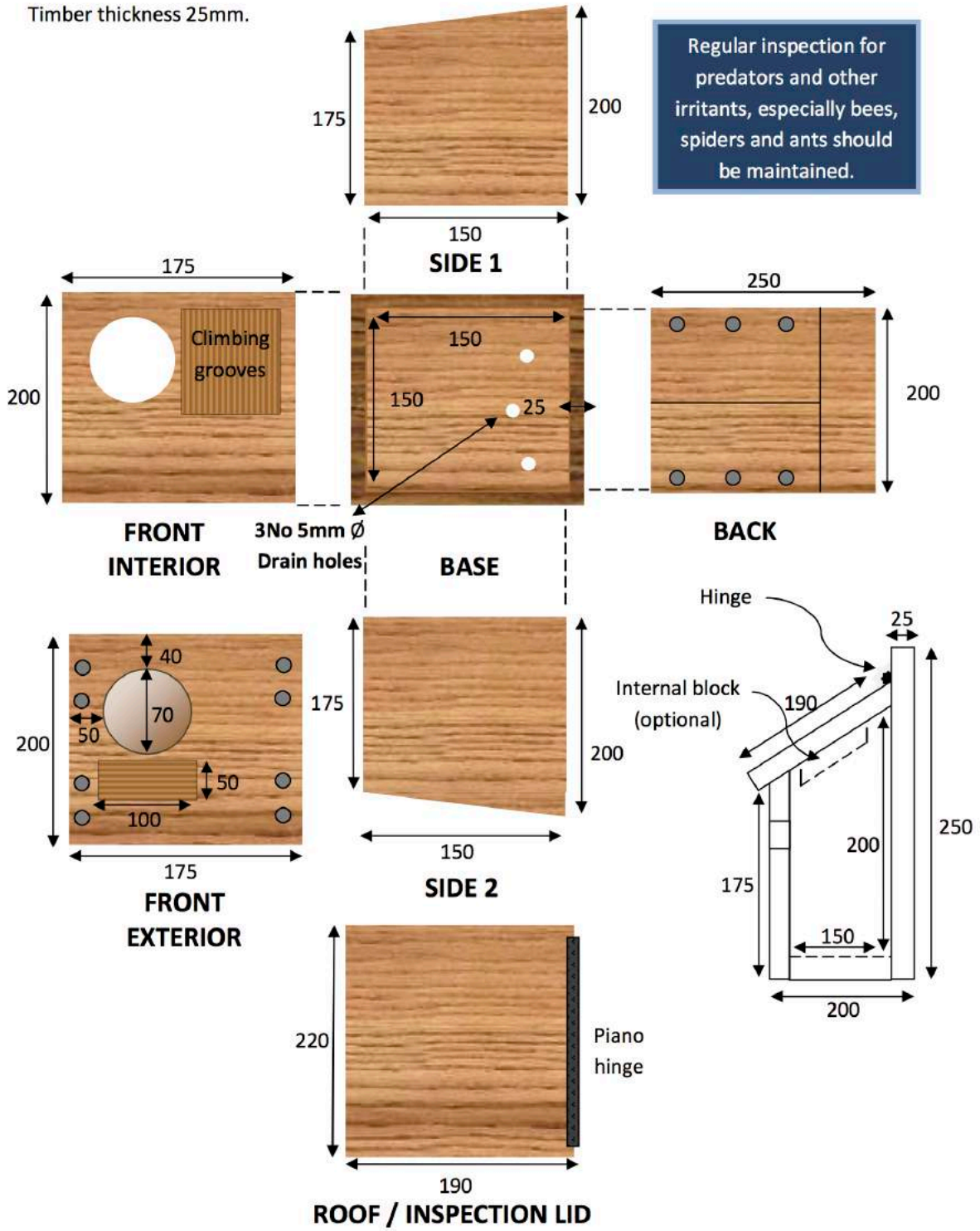


Nest Boxes for the Gippsland Region
By: East Gippsland & Maffra and district Landcare Network

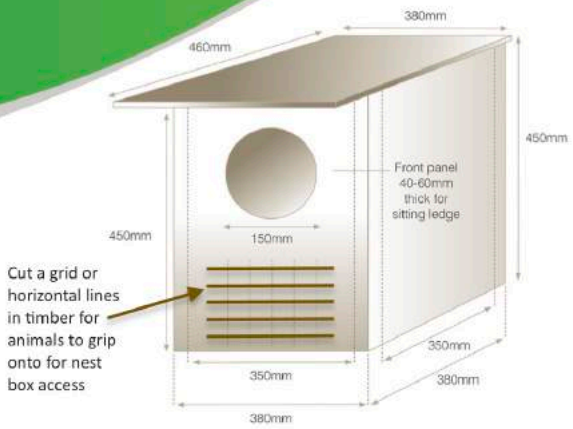
OWLET NIGHTJAR NEST BOX

Bird Nest Box

Measurements are in millimetres (mm).
Timber thickness 25mm.



Nest box for the Southern Boobook



The Southern Boobook is the smallest and most common owl in Australia at just 30 cm long. It's plumage is dark chocolate-brown above and rufous-brown below, heavily streaked and spotted with white. The facial disc is chocolate brown and the eyes are large and yellowish. The breeding season runs from September to February. The female alone incubates the eggs but both sexes and sometimes a second female helper will feed the young. Usually two to three eggs are laid and the nestling period is 42 days.


Photo by Ákos Lumnitzer

Habitat Information

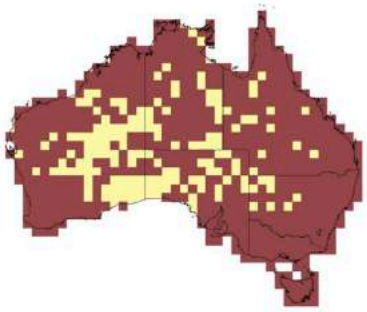
Southern Boobooks can be found in many habitats from dense forest to open desert. In urban areas, they are seen in parks, gardens, remnant bushland and street trees. However, it is important to remember that installing a nest box will be most successful if you provide habitat in your own garden that is suitable for the bird. Southern Boobooks feed mostly on insects and small mammals. To provide good habitat for Southern Boobooks, try planting things that will provide cover and food for insects and small animals, such as some native grasses, flowering natives and thorny native bushes. Have some good perching locations around such as fence posts and tree limbs too that the boobooks will use when looking for prey. Mice and other rodents can of course be a problem around our houses however try to avoid poisoning them so they do not make boobooks and other birds of prey ill. Instead, think about using mouse-traps in and around your house.

Shapes needed (based on 15mm thick timber)

- Top: rectangle 380mm x 460mm
- Sides: 2 x rectangles 350mm x 450mm
- Front: rectangle 380mm x 450mm (adjust for 40-60mm thick timber)
- Back: rectangle 380mm x 450mm
- Base: square 350mm x 350mm

Special Notes

Make the front panel between 40mm and 60mm thick to provide a sitting ledge. Although the breeding season occurs between September and February, Southern Boobooks will use nest boxes throughout the year as day roost sites. Therefore it is important to continue to maintain the nest box throughout the year even when you may not have seen the occupants recently but unless you see an introduced bird moving into the nest box, resist the urge to lift the lid and look inside. If you disturb the birds then they may abandon the nest box. Only open the lid to remove unwanted invaders.



Distribution of the Southern Boobook

Birds in Backyards

birdlife AUSTRALIA

Materials Needed

- Timber at least 15mm thick (for adequate insulation). If you use thicker timber, please adjust the dimensions of the nest box appropriately.It is best to use untreated recycled wood, such as off-cuts or plywood, or plantation-grown wood, rather than using unsustainably harvested timber. Never take hollow limbs or branches from the wild.(Note: if using plywood, use glue and nails to assemble your box)
- Wood glue (something odourless)
- Non-toxic paint or sealant

- Screws
- Stainless steel hinge (x 2)
- Hook latch and eye

- Metal staples
- For wire attachment (method 1): wire or vinyl-covered clothesline (ensure you have enough to fit snuggly around the tree) and a piece of garden hose
- For mounting strip attachment (method 2): A piece of timber 650mm long and 90mm wide (the mounting strip), plus another piece of timber (the spacer) between the mounting strip and the nest box (slighting smaller than the height of the nest box) + 100mm galvanised screws

Tools Needed

- Hole drill bit (for 150mm hole) and power drill
- Saw
- Hammer
- Screwdriver
- Stapler
- Safety glasses and dust mask
- Coarse sandpaper (or a rasp)
- Ladder

Construction

1. Cut out shapes

- Wearing safety glasses and a dust mask, use the saw to cut out all of the required shapes for the box.
- Label each panel with pencil (on the inside) so that you can keep track of each part.
- Paint the outside and edges of each panel with non-toxic paint or sealant. Leave the inside face of each panel raw.

2. Add features to the panels

- Front panel: use your hole drill bit to cut a hole 150mm in diameter. The hole should be in the middle of the panel, a couple of cm from the top.
- Make parallell cuts 2-3mm wide, 20mm apart, on the inside and outside of the front panel. This will enable animals to enter and exit the box.
- Back panel (for attachment method 1 only): drill 2 small holes evenly spaced and approximately 1/3rd of the distance from the top of the panel. Feed the wire or vinyl covered clothesline through both holes from the inside of the back panel.
- Back panel (for attachment method 2 only): Place the spacer along the middle of the back panel (running top to bottom). Secure to the box with wood glue and screws from the inside. Attach the mounting strip to the spacer using the same method. Pre-drill a hole at the top and bottom of the mounting strip.
- Bottom panel: drill 5 small holes into the bottom panel for drainage.

3. Put the box together

- Glue the side panels to the outside edges of the bottom panel and secure with screws. Use at least 3 screws per panel face for the entire box. Repeat for the front and back panels.
- Use the hinges to attach the top panel to the back panel (fit one on either side of the backing). This will allow you to lift the lid to inspect the nest box.
- Fit a hook latch and eye to stop the lid from blowing open in a strong wind.

4. Final touches

- Ensure there are no protruding screws or staples.
- Use coarse sandpaper or a rasp to rough up the front panel of the box so that the birds can grip.
- Paint the external surface with 2-3 coats of a water based (non-toxic) exterior grade paint to help it last, in a pale colour.

Installation

Ideally boxes should be installed on large, mature trees, close to or on the main trunk. Install the box as high as possible to prevent predation but low enough to be safely accessible for monitoring and maintenance.

For this species the ideal height for the box is 5 metres. Obviously many people will not possess the equipment necessary to be able to safely access these heights, and so we recommend that you place the box at the highest point you can comfortably access.

Choose a position for the nest box that:

- Faces south to south-east and away from prevailing winds and night time lights
- Has a limb on the opposite side of the trunk so the hose-covered wire will rest in the fork (for attachment method 1).
- Ensure that you use appropriate safety measures when installing the box. Never use a ladder alone and use a pulley system to raise the box to the installation location
- To limit cat and rat predation, try placing a smooth collar of metal or plastic around the base of the tree.

Attachment method 1:

Cut a length of garden hose that will fit almost the entire way around the tree. Cover one piece of the wire/clothesline at the back of the nest box with the garden hose, leaving a small piece of wire at the end uncovered and a short piece of wire/clothesline protruding from the other side of the box. Wrap the hose around the tree (sitting snuggly and in a fork). Twist, tightly knot or otherwise secure the wire/clothesline (make sure it won't work loose). The garden hose will not cut into the tree but adjust each year as the tree grows.

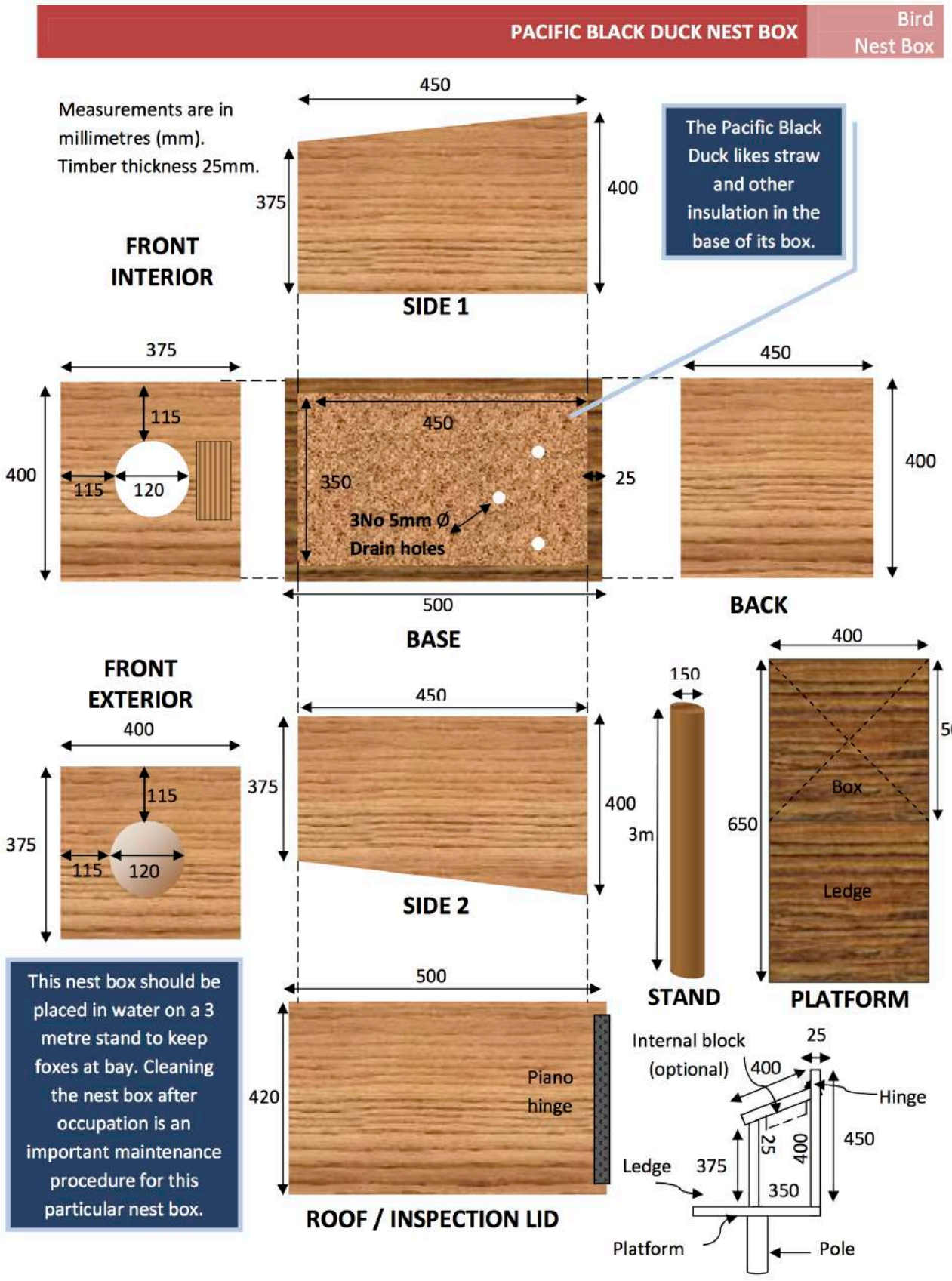
Attachment method 2:

- Use the galvanized screws to secure the box to the tree through the predrilled holes at the top and bottom of the mounting strip.
- If you remove the nest box, be sure to also remove the screws.

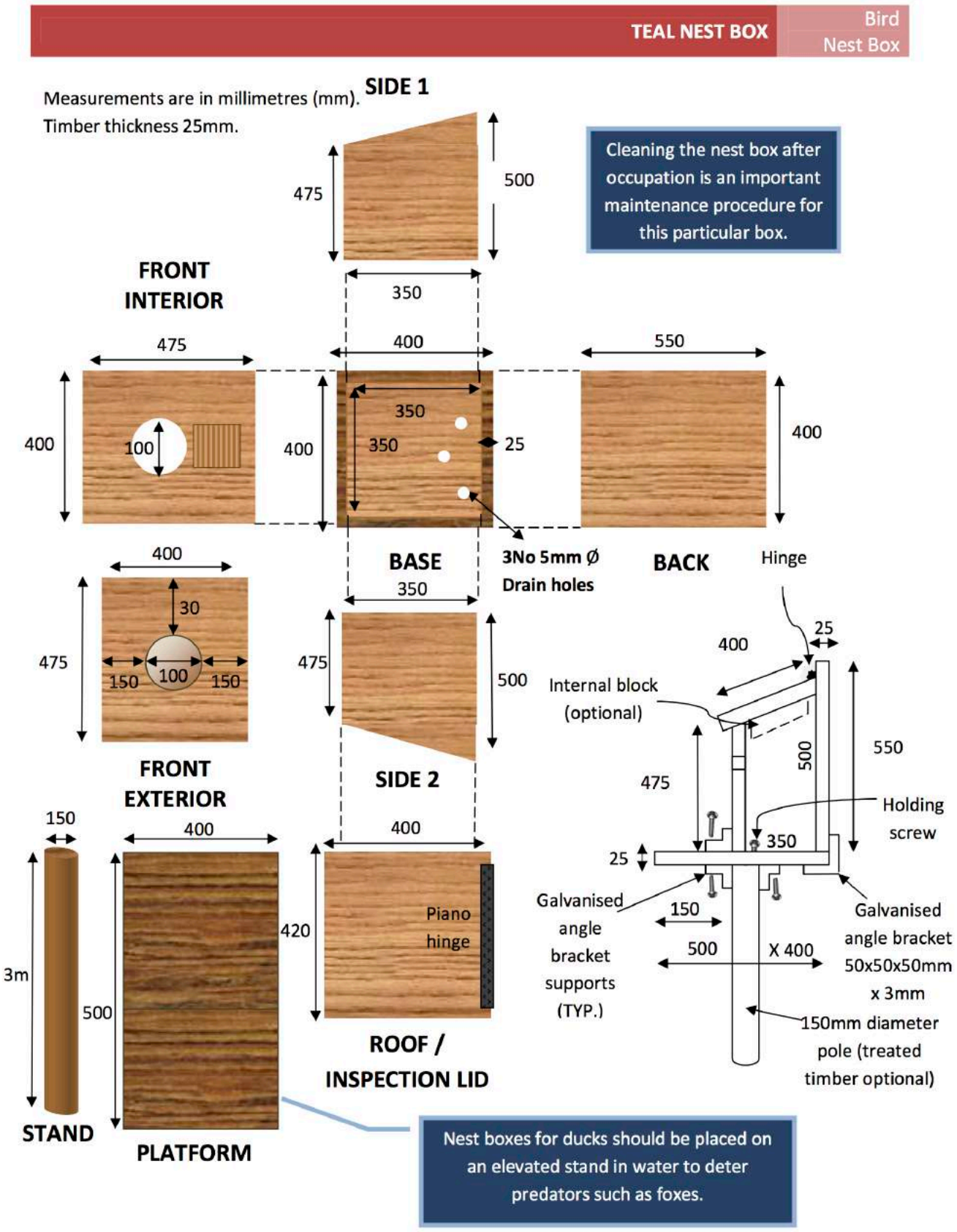
Maintenance

Regularly check your box to make sure that the intended species has not been driven from their nest by introduced birds, and always contact an apiarist if honeybees take over the nest. If introduced birds (like Mynas or Starlings) move in, remove their nesting material and any eggs. You may need to repeat this more than once. If they are persistent, cover the hole for a while.

After the chicks have fledged and the adults have left the box, clean it out to prepare it for next year, but put it back up quickly as adults will use the box as a roost site year-round. Remember that trees grow in girth as well as height, and be sure to check the fixings on the box every year or two to adjust for growth.



Nest Boxes for the Gippsland Region
By: East Gippsland & Maffra and District Landcare Network

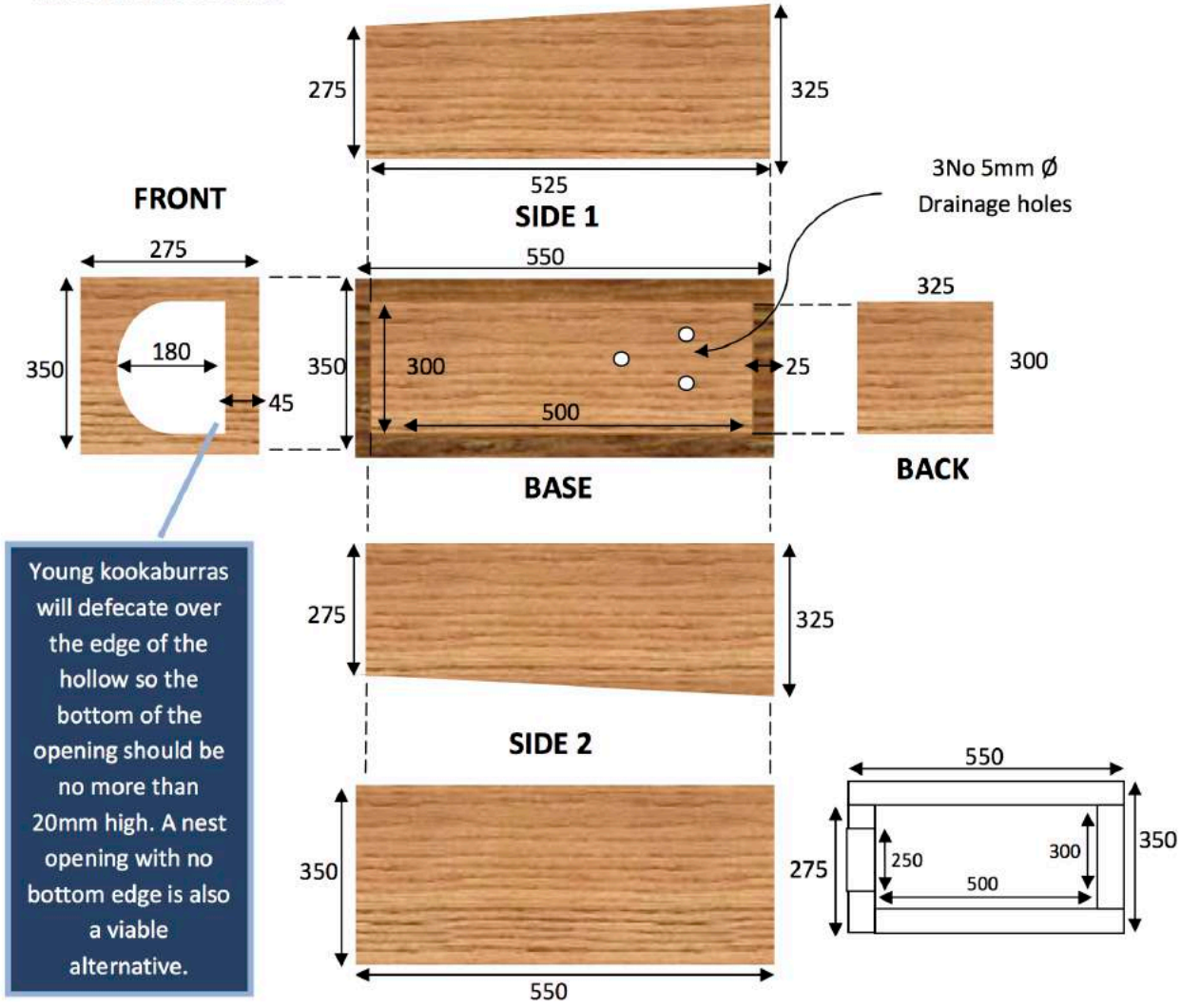


Nest Boxes for the Gippsland Region
By: East Gippsland & Maffra and district Landcare Network

LAUGHING KOOKABURRA NEST BOX

Bird Nest Box

Measurements are in millimetres (mm).
Timber thickness 25mm.



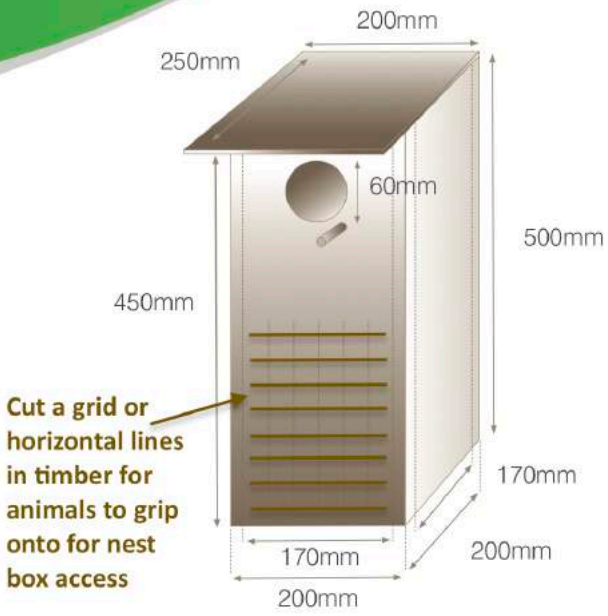
The nest box should be placed about 4-6 metres above ground with the box orientated so that the hollow is facing away from the sun and customary winds. Be careful not to exceed the installation height limit as regular maintenance and monitoring of the box can become a problem.

Nest box for the Red-rumped Parrot

Red-rumped Parrots are small (26cm), slender parrots. The adult male is bright green with a blue green head, a red rump and yellow shoulders and belly. The adult female is a duller olive-green with a green rump and faint yellow or light green scales on the belly. Red-rumped Parrots mate for life and breed from August to January, producing 4-5 white eggs that are incubated for 20 days, with chicks fledging at 4-5 weeks.

Habitat Information

Red-rumped Parrots can be found in open grasslands or lightly timbered plains, as well as along watercourses and in mallee farmlands with access to water. Large grassy parks, golf courses and similar habitats in urban areas are also a favourite. However, it is important to remember that installing a nest box will be most successful if you provide habitat in your own garden that is suitable for the bird. Red-rumped Parrots prefer to feed on seeds and leaves of grasses, as well as seeds, fruits and flowers in trees. To provide good habitat for Red-rumped Parrots, try planting some native grasses.

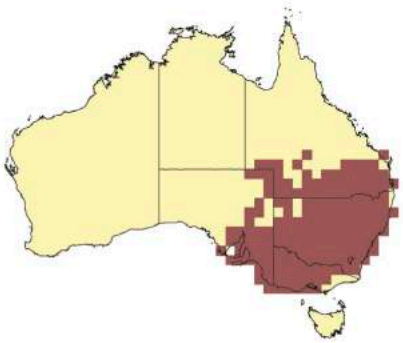


Shapes needed (based on 15mm thick timber)

- Top: rectangle 200mm x 250mm
- Sides: 2 x rectangles 170mm x 500mm (note: both pieces have to be cut to form a sloping edge for the roof)
- Front: rectangle 200mm x 450mm
- Back: rectangle 200mm x 500mm
- Base: square 170mm x 170mm

Special Notes

More than one nest box can be installed if you wish as more than one pair may nest in different boxes in one tree. Unless you see an introduced bird moving into the nest box, resist the urge to lift the lid and look inside. If you disturb the birds then they may abandon the nest box. Only open the lid to remove unwanted invaders.



Distribution of the Red-rumped Parrot

Birds in Backyards

birdlife AUSTRALIA

Materials Needed

- Timber at least 15mm thick (for adequate insulation). If you use thicker timber, please adjust the dimensions of the nest box appropriately. It is best to use untreated recycled wood, such as off-cuts or plywood, or plantation-grown wood, rather than using unsustainably harvested timber. Never take hollow limbs or branches from the wild. (Note: if using plywood, use glue and nails to assemble your box)
- 5mm timber dowel for a perch (note: this is an optional addition)
- Wood glue (something odourless)
- Non-toxic paint or sealant
- Linseed oil
- Screws
- Stainless steel hinge (x 2)
- Hook latch and eye

- Metal staples
- For wire attachment (method 1): wire or vinyl-covered clothesline (ensure you have enough to fit snuggly around the tree) and a piece of garden hose
- For mounting strip attachment (method 2): A piece of timber 700mm long and 90mm wide (the mounting strip), plus another piece of timber (the spacer) between the mounting strip and the nest box (slighting smaller than the height of the nest box) + 100mm galvanised screws

Tools Needed

- Hole drill bit (for 70mm hole) and power drill
- Saw
- Hammer
- Screwdriver
- Stapler
- Safety glasses and dust mask
- Coarse sandpaper (or a rasp)
- Ladder

Construction

1. Cut out shapes

- Wearing safety glasses and a dust mask, use the saw to cut out all of the required shapes for the box.
- Label each panel with pencil (on the inside) so that you can keep track of each part.
- Paint the outside and edges of each panel with non-toxic paint or sealant. Leave the inside face of each panel raw.

2. Add features to the panels

- Front panel: use your hole drill bit to cut a hole 60mm in diameter. The hole should be in the middle of the panel, a couple of cm from the top.
- Make parallell cuts 2-3mm wide, 20mm apart, on the inside and outside of the front panel. This will enable animals to enter and exit the box.
- Front panel (optional): to fix a perch to the front of the nest box, drill a 5mm hole through the panel approximately 70mm below the nest box opening. Place wood glue in this hole and then insert the 5mm timber dowel from the outside of the panel until it is flush with the inside. Allow to dry.
- Side panels: Cut one end of each panel to form a slope for the roof to fit onto. To do this, put a mark 50mm down from the top on the front edge of each panel, and saw off this wedge of timber from the mark to the opposite top corner.
- Back panel (for attachment method 1 only): drill 2 small holes evenly spaced and approximately 1/3rd of the distance from the top of the panel. Feed the wire or vinyl covered clothesline through both holes from the inside of the back panel.
- Back panel (for attachment method 2 only): Place the spacer along the middle of the back panel (running top to bottom). Secure to the box with wood glue and screws from the inside. Attach the mounting strip to the spacer using the same method. Pre-drill a hole at the top and bottom of the mounting strip.
- Bottom panel: drill 5 small holes into the bottom panel for drainage.

3. Put the box together

- Glue the side panels to the outside edges of the bottom panel and secure with screws. Use at least 3 screws per panel face for the entire box. Repeat for the front and back panels.
- Use the hinges to attach the top panel to the back panel (fit one on either side of the backing mount). This will allow you to lift the lid to inspect the nest box.
- Fit a hook latch and eye to stop the lid from blowing open in a strong wind.

4. Final touches

- Ensure there are no protruding screws or staples.
- Use coarse sandpaper or a rasp to rough up the front panel of the box so that the birds can grip.
- Paint the external surface with 2-3 coats of a water based (non-toxic) external grade paint to help it last, in a pale colour.

Installation

Ideally boxes should be installed on large, mature trees, close to or on the main trunk. Install the box as high as possible to prevent predation but low enough to be safely accessible for monitoring and maintenance.

For this species the ideal height for the box is 4-14 metres. Obviously many people will not possess the equipment necessary to be able to safely access these heights, and so we recommend that you place the box at the highest point you can comfortably access.

Choose a position for the nest box that:

- Faces south, or south-east and away from prevailing winds and night time lights
- has a limb on the opposite side of the trunk so the hose-covered wire will rest in the fork (for attachment method 1).
- Ensure that you use appropriate safety measures when installing the box. Never use a ladder alone and use a pulley system to raise the box to the installation location
- To limit cat and rat predation, try placing a smooth collar of metal or plastic around the base of the tree.

Attachment method 1:

Cut a length of garden hose that will fit almost the entire way around the tree. Cover one piece of the wire/clothesline at the back of the nest box with the garden hose, leaving a small piece of wire at the end uncovered and a short piece of wire/clothesline protruding from the other side of the box. Wrap the hose around the tree (sitting snuggly and in a fork). Twist, tightly knot or otherwise secure the wire/clothesline (make sure it won't work loose). The garden hose will not cut into the tree but adjust each year as the tree grows.

Attachment method 2:

- Use the 100mm galvanized screws to secure the box to the tree through the predrilled holes at the top and bottom of the mounting strip.
- If you remove the nest box, be sure to also remove the screws.

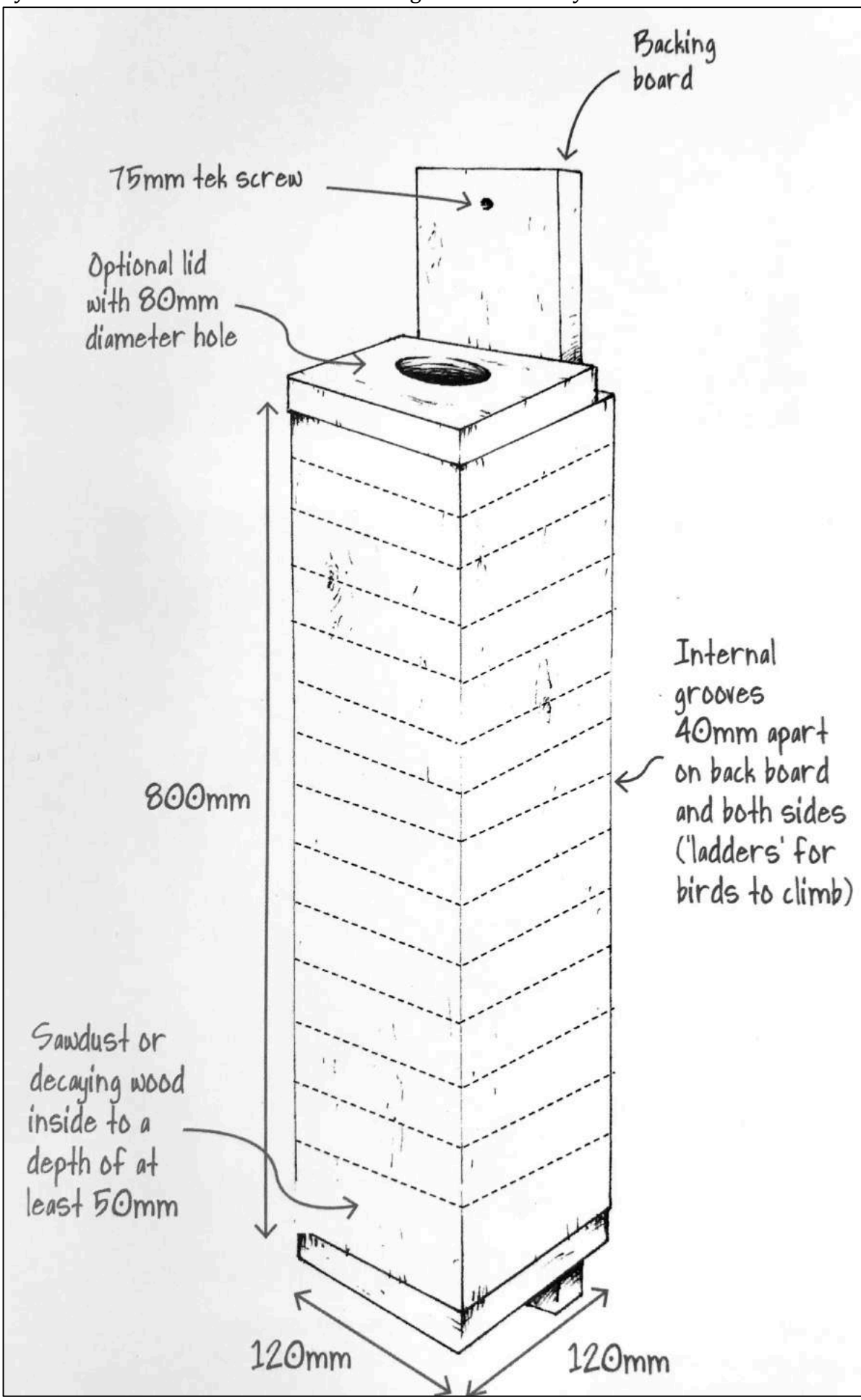
Maintenance

Regularly check your box to make sure that the intended species has not been driven from their nest by introduced birds, and always contact an apiarist if honeybees take over the nest. If introduced birds (like Common Mynas or Starlings) move in (though this opening may be too small), remove their nesting material and any eggs. You may need to repeat this more than once. If they are persistent, cover the hole for a while. You can also try a 'Myna baffle' that sometimes discourages Mynas from moving in but results for these have been mixed.

After the chicks have fledged and the adults have left the box, clean it out to prepare it for next year. Remember that trees grow in girth as well as height, and be sure to check the fixings on the box every year or two to adjust for growth.

Turquoise Parrot nest box design

From 'Turquoise Country, Communities caring for the threatened Turquoise Parrot'.
By the Goulburn Broken Catchment Management Authority



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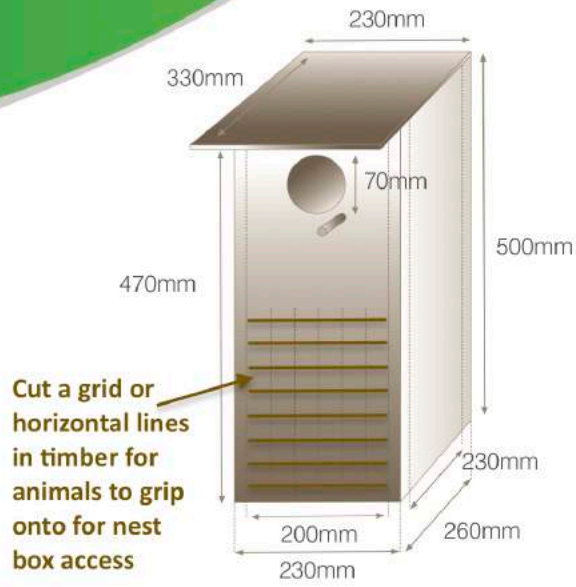
Nest box for the Eastern Rosella

Eastern Rosellas are medium-sized colourful parrots with distinctive white cheek patches. They have red head, next and breast, with yellowish to greenish upper parts, a yellow underbody and a yellow-green to blue-green rump, with a red undertail. Females are similar but sometimes duller. Eastern Rosellas mate for life. The female chooses and prepares the nesting site, and incubates the eggs while the male regularly feeds her. Young may be fed for a while after fledging. Between 4 and 8 eggs are laid, and the incubation period is 18 days. Fledging occurs at 32 days.

Habitat Information

Eastern Rosellas are found in open woodlands, grasslands, farmlands and remnant bushland as well as parks, gardens and golf courses. However, it is important to remember that installing a nest box will be most successful if you provide habitat and food in your garden that is suitable for the bird. Eastern Rosellas mainly feed on seeds, insects and some nectar. They forage on the ground, especially amongst grasses in lawns, pastures and other clearings and sometimes in trees and bushes. To attract Eastern Rosellas to your garden and nest box, try planting some native grasses and shrubs.



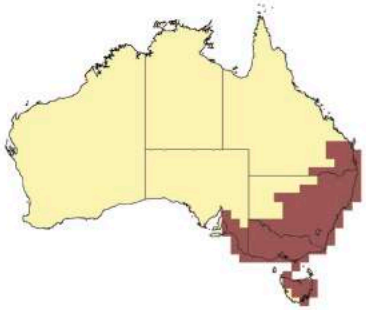
Shapes needed (based on 15mm thick timber)

- Top: rectangle 230mm x 330mm
- Sides: 2 x rectangles 230mm x 500mm (note: both pieces have to be cut to form a sloping edge for the roof)
- Front: rectangle 230mm x 470mm
- Back: rectangle 230mm x 500mm
- Base: rectangle 200mm x 230mm

Special Notes

Add a couple of handfuls of shredded bark (untreated) or wood shavings (not fine saw dust) at the bottom of the nest box.

Ensure that you observe the box from a distance or through a window, as Eastern Rosellas may desert the nest if they feel they are being watched. Unless you see an introduced bird moving in to the nest box, resist the urge to lift the lid and look inside. If you disturb the birds then they may abandon the nest box. Only open the lid to remove unwanted invaders.



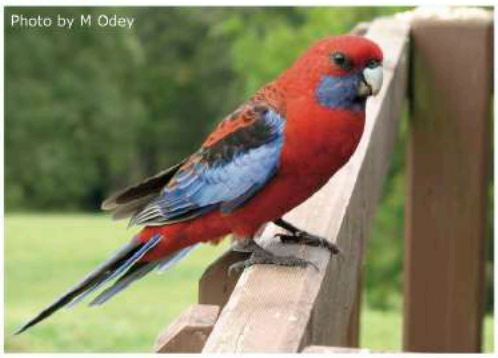
Distribution of the Eastern Rosella

Birds in Backyards

birdlife AUSTRALIA

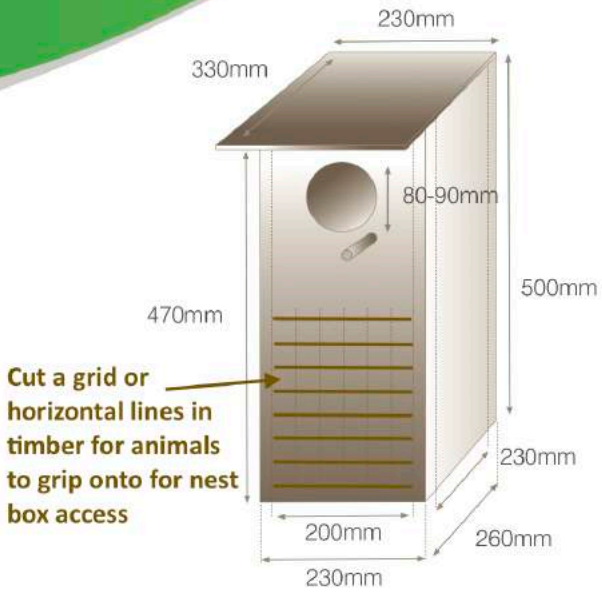
Nest box for the Crimson Rosella

There are several colour forms of the Crimson Rosella. The form it is named for has mostly crimson plumage and bright blue cheeks. Crimson birds occur in northern Queensland, in southern Queensland to south-eastern South Australia and on Kangaroo Island. Orange birds are restricted to the Flinders Ranges in South Australia, while yellow ones are found along the Murray, Murrumbidgee and neighbouring rivers. Females incubate the eggs, and both sexes care for the young. Breeding season is from September to January. 4 to 8 eggs are laid and incubated for 20 days. Chicks fledge at 25 days but remain dependent on the parents for a further 35 days.



Habitat Information

Throughout its range, the Crimson Rosella is commonly associated with tall eucalypt and wetter forests and they are also found in parks and gardens. It is important to remember that installing a nest box will be most successful if you provide habitat in your own garden that is suitable for the bird. Natural foods of Crimson Rosellas include seeds of eucalypts, grasses and shrubs, as well as insects and nectar from native shrubs. To attract them to your garden and nest box, try planting some native grasses and shrubs and retain any eucalypt trees you have.

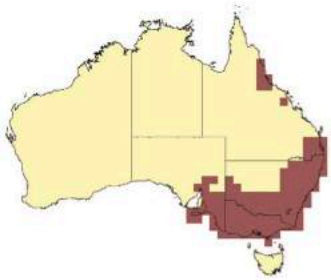


Shapes needed (based on 15mm thick timber)

- Top: rectangle 230mm x 330mm
- Sides: 2 x rectangles 230mm x 500mm (note: both pieces have to be cut to form a sloping edge for the roof)
- Front: rectangle 230mm x 470mm
- Back: rectangle 230mm x 500mm
- Base: rectangle 200mm x 230mm

Special Notes

Add a couple of handfuls of shredded bark (untreated) or wood shavings (not fine saw dust) at the bottom of the nest box. Ensure that you observe the box from a distance or through a window, as Crimson Rosellas may desert the nest if they feel they are being watched. Unless you see an introduced bird moving into the nest box, resist the urge to lift the lid and look inside. If you disturb the birds then they may abandon the nest box. Only open the lid to remove unwanted invaders.



Distribution of the Crimson Rosella

Birds in Backyards

birdlife AUSTRALIA

Materials Needed

- Timber at least 15mm thick (for adequate insulation). If you use thicker timber, please adjust the dimensions of the nest box appropriately. It is best to use untreated recycled wood, such as off-cuts or plywood, or plantation-grown wood, rather than using unsustainably harvested timber. Never take hollow limbs or branches from the wild. (Note: if using plywood, use glue and nails to assemble your box)
- 5mm timber dowel for a perch (note: this is an optional addition)
- Wood glue (something odourless)
- Non-toxic paint or sealant
- Linseed oil
- Screws
- Stainless steel hinge (x 2)
- Hook latch and eye

- Metal staples
- Wood shavings or shredded bark (untreated)
- For wire attachment (method 1): wire or vinyl-covered clothesline (ensure you have enough to fit snuggly around the tree) and a piece of garden hose
- For mounting strip attachment (method 2): A piece of timber 700mm long and 90mm wide (the mounting strip), plus another piece of timber (the spacer) between the mounting strip and the nest box (slighting smaller than the height of the nest box) + 100mm galvanised screws

Tools Needed

- Hole drill bit (for 80-90mm hole) and power drill
- Saw
- Hammer
- Screwdriver
- Stapler
- Safety glasses and dust mask
- Coarse sandpaper (or a rasp)
- Ladder

Construction

1. Cut out shapes

- Wearing safety glasses and a dust mask, use the saw to cut out all of the required shapes for the box.
- Label each panel with pencil (on the inside) so that you can keep track of each part.
- Paint the outside and edges of each panel with non-toxic paint or sealant. Leave the inside face of each panel raw

2. Add features to the panels

- Front panel: use your hole drill bit to cut a hole between 80-90mm in diameter. The hole should be in the middle of the panel, a couple of cm from the top.
- Make parallell cuts 2-3mm wide, 20mm apart, on the inside and outside of the front panel. This will enable animals to enter and exit the box.
- Front panel (optional): to fix a perch to the front of the nest box, drill a 5mm hole through the panel approximately 70mm below the nest box opening. Place wood glue in this hole and then insert the 5mm timber dowel from the outside of the panel until it is flush with the inside. Allow to dry.
- Side panels: Cut the short end of each panel to form a slope for the roof to fit onto. To do this, put a mark 30mm down from the top on the front edge of each panel, and saw off this wedge of timber from the mark to the opposite top corner.
- Back panel (for attachment method 1 only): drill 2 small holes evenly spaced and approximately 1/3rd of the distance from the top of the panel. Feed the wire or vinyl covered clothesline through both holes from the inside of the back panel.
- Back panel (for attachment method 2 only): Back panel (for attachment method 2 only): Place the spacer along the middle of the back panel (running top to bottom). Secure to the box with wood glue and screws from the inside. Attach the mounting strip to the spacer using the same method. Pre-drill a hole at the top and bottom of the mounting strip.
- Bottom panel: drill 5 small holes into the bottom panel for drainage.

3. Put the box together

- Glue the side panels to the outside edges of the bottom panel and secure with screws. Use at least 3 screws per panel face for the entire box. Repeat for the front and back panels.
- Use the hinges to attach the top panel to the back panel (fit one on either side of the backing. This will allow you to lift the lid to inspect the nest box.
- Fit a hook latch and eye to stop the lid from blowing open in a strong wind.

4. Final touches

- Ensure there are no protruding screws or staples.
- Use coarse sandpaper or a rasp to rough up the front panel of the box so that the birds can grip.
- Paint the external surface with a water based paint to help it last.
- Throw a handful or two of wood shavings or untreated shredded bark (untreated) into the bottom of the nest box.

Installation

Ideally boxes should be installed on large, mature trees, close to or on the main trunk. Install the box as high as possible to prevent predation but low enough to be safely accessible for monitoring and maintenance.

For this species the ideal height for the box is 5 metres. Obviously many people will not possess the equipment necessary to be able to safely access these heights, and so we recommend that you place the box at the highest point you can comfortably access.

Choose a position for the nest box that:

- Faces south, or south-east and away from prevailing winds and night time lights
- Has a limb on the opposite side of the trunk so the hose-covered wire will rest in the fork (for attachment method 1).
- Ensure that you use appropriate safety measures when installing the box. Never use a ladder alone and use a pulley system to raise the box to the installation location
- To limit cat and rat predation, try placing a smooth collar of metal or plastic around the base of the tree.

Attachment method 1:

Cut a length of garden hose that will fit almost the entire way around the tree. Cover one piece of the wire/clothesline at the back of the nest box with the garden hose, leaving a small piece of wire at the end uncovered and a short piece of wire/clothesline protruding from the other side of the box. Wrap the hose around the tree (sitting snuggly and in a fork). Twist, tightly knot or otherwise secure the wire/clothesline (make sure it won't work loose). The garden hose will not cut into the tree but adjust each year as the tree grows.

Attachment method 2:

Use the galvanized screws to secure the box to the tree through the predrilled holes at the top and bottom of the mounting strip. If you remove the nest box, be sure to also remove the screws.

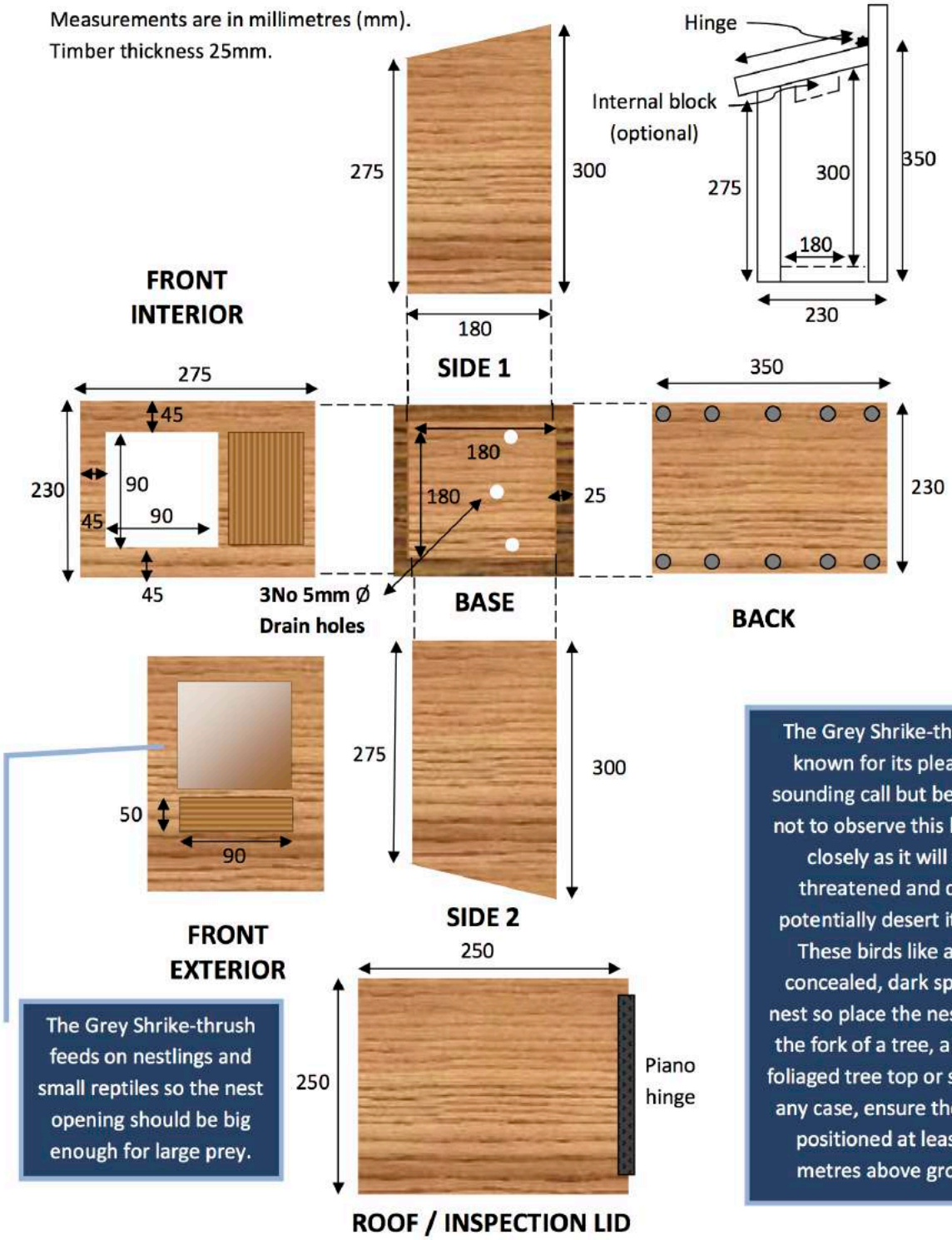
Maintenance

Regularly check your box to make sure that the intended species has not been driven from their nest by introduced birds, and always contact an apiarist if honeybees take over the nest. If introduced birds (like Common Mynas or Starlings) move in, remove their nesting material and any eggs. You may need to repeat this more than once. If they are persistent, cover the hole for a while. You can also try a 'Myna baffle' that sometimes discourages Mynas from moving in but this does not always work.

After the chicks have fledged and the adults have left the box, clean it out to prepare it for next year. Remember that trees grow in girth as well as height, and be sure to check the fixings on the box every year or two to adjust for growth.

GREY SHRIKE-THRUSH NEST BOX

Bird Nest Box



The Grey Shrike-thrush feeds on nestlings and small reptiles so the nest opening should be big enough for large prey.

The Grey Shrike-thrush is known for its pleasant-sounding call but be careful not to observe this bird too closely as it will feel threatened and could potentially desert its nest. These birds like a well concealed, dark space to nest so place the nest box in the fork of a tree, a heavily foliaged tree top or shrub. In any case, ensure the box is positioned at least 2-5 metres above ground.

Nest Boxes for the Gippsland Region
By: East Gippsland & Maffra and district Landcare Network

Nest box for the Striated Pardalote

The Striated Pardalote is a very small bird (8-10cm) weighing only 11g. It has a white brow with a yellow spot in front of the eye, olive-grey back and a white stripe in the wing. There is variation in the width of the stripe, the coloured spot at the front end of the strip, and whether or not the black crown has fine white stripes across the range. The breeding season occurs from June to January, when they form pairs or small groups of up to six birds. Both sexes incubate and care for the young, and other members of groups may also help with feeding. 3 – 5 eggs are laid.

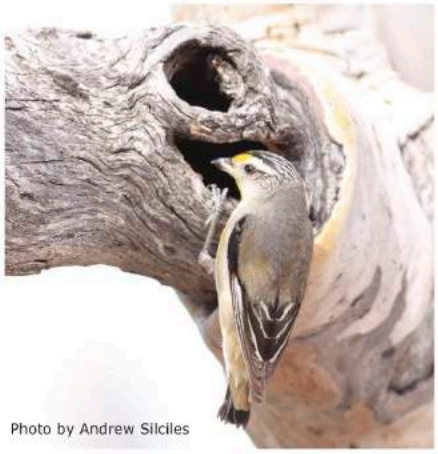
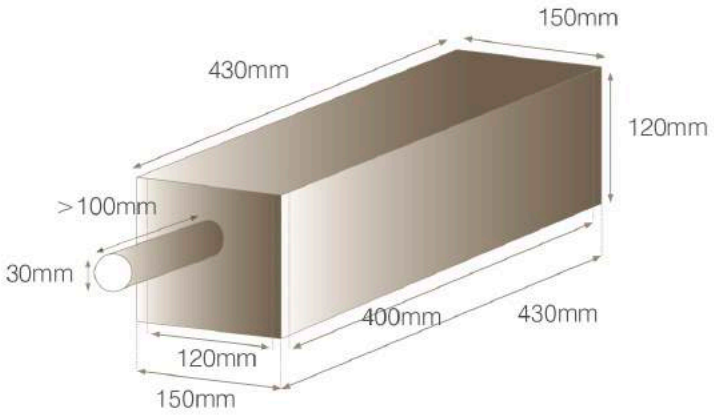


Photo by Andrew Silciles

Habitat Information

Striated Pardalotes are found in almost any habitat with trees or shrubs, but prefer eucalypt forests and woodlands. They forage on the foliage of trees for insects, particularly psyllids, but can occasionally be found close to the ground feeding in low shrubs. Pardalotes like to be high in the canopy, therefore if you have tall trees in your garden it is best to take good care of them to provide good habitat for pardalotes. Try planting some native insect-attracting shrubs to provide food for them.

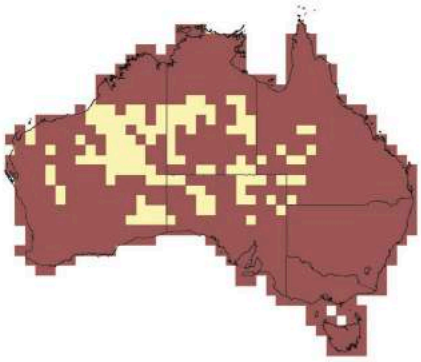


Shapes needed (based on 15mm thick timber)

- Top: rectangle 150 x 430mm
- Sides and Base: 2 x rectangles 120mm x 400mm
- Front and Back: 2 x rectangles 150mm x 120mm
- Extra: 1 tube plastic piping approx. 30mm diameter x 100mm length

Special Notes

Striated Pardalotes require a tunnel-shaped entrance which can be fashioned from PVC piping. Unless you see an introduced bird moving into the nest box, resist the urge to lift the lid and look inside. If you disturb the birds then they may abandon the nest box. Only open the lid to remove unwanted invaders.



Distribution of the Striated Pardalote

Birds in Backyards

birdlife AUSTRALIA

Materials Needed

- Timber at least 15mm thick (for adequate insulation). If you use thicker timber, please adjust the dimensions of the nest box appropriately. It is best to use untreated recycled wood, such as off-cuts or plywood, or plantation-grown wood, rather than using unsustainably harvested timber. Never take hollow limbs or branches from the wild. (Note: if using plywood, use glue and nails to assemble your box)
- Plastic piping (e.g. PVC) 30mm diameter, 100mm long
- Wood glue (something odourless)
- Non-toxic paint or sealant
- Linseed oil
- Screws
- Stainless steel hinge (either one long one or two smaller ones)
- Hook latch and eye
- For mounting strip attachment: A piece of timber 630mm by 90mm or 320mm by 90mm depending on whether you are attaching it to a limb or the trunk respectively) plus 100mm galvanised screws (for mounting the strip to the tree)

Tools Needed

- Drill
- Hole drill bit (for 30mm hole)
- Saw
- Hammer
- Screwdriver
- Stapler
- Safety glasses and dust mask
- Coarse sandpaper (or a rasp)
- Ladder

Construction

1. Cut out shapes

- Wearing safety glasses and a dust mask, use the saw to cut out all of the required shapes for the box.
- Label each panel with pencil (on the inside) so that you can keep track of each part.
- Paint the outside and edges of each panel with non-toxic paint or sealant. Leave the inside face of each panel raw.

2. Add features to the panels

- Front panel: use your hole drill bit to cut a hole 30mm in diameter (or the same width as your piping). The hole should be in the middle of the front panel, a couple of cm from the top. You may need to use sandpaper or a rasp to file the hole a touch larger so the tubing fits snuggly in to place. Cut the plastic tubing to a length of 100mm, and use the wood glue to fit one end into the hole. This makes a tunnel entrance for the birds.
- Side panel (for tree limb attachment only): select the side that will attach to the tree limb. Run the mounting strip horizontally along the length of the next box (with excess timber at either end) and secure with small screws from the inside of the panel. Pre-drill 2 holes in the mounting strip, one at each end. Alternatively you can run 2 mounting strips vertically at each end of the box.
- Side panel (for trunk attachment only): select the side that will attach to the tree trunk. Run the mounting strip vertically down the middle of the nest box and secure with small screws from the inside of the panel. Pre-drill 2 holes in the mounting strip, one at the top and one at the bottom.
- Bottom panel: drill at least 5 small holes into the bottom panel for drainage

3. Put the box together

- Glue the side panels to the outside edges of the bottom panel and secure with screws. Use at least 3 screws per panel face for the entire box.
- Repeat for the front and back panels.
- Use the hinge to attach the top panel to the back panel. This will allow you to lift the lid to inspect the nest box.
- Fit a hook latch and eye to stop the lid from blowing open in a strong wind.

4. Final touches

- Ensure there are no protruding screws.
- Paint the external surface with 2-3 coats of a water based (non-toxic) exterior grade paint to help it last, in a pale colour.

Installation

Ideally boxes should be installed on large, mature trees, close to or on the main trunk or a thick horizontal limb. Install the box as high as possible to prevent predation but low enough to be safely accessible for monitoring and maintenance.

For this species the ideal height for the box is 5 metres. Obviously many people will not possess the equipment necessary to be able to safely access these heights, and so we recommend that you place the box at the highest point you can comfortably access.

Choose a position for the nest box that:

- Faces south to south-east and away from prevailing winds and night time lights
- Has a large, thick (> 700mm circumference) and horizontal limb (for limb attachment method).
- Ensure that you use appropriate safety measures when installing the box. Never use a ladder alone and use a pulley system to raise the box to the installation location
- To limit cat and rat predation, try placing a smooth collar of metal or plastic around the base of the tree.

Attachment method 1 (limb attachment):

- Use the galvanized 100 mm screws to secure the box to the tree through the predrilled holes at the front and back of the mounting strip. Make sure the box is horizontal (or with a very slight forward slope).
- Ensure the box does not move too much in windy weather.
- If you remove the nest box, be sure to also remove the screws

Attachment method 2 (trunk attachment):

- Use the galvanized 100 mm screws to secure the box to the tree through the predrilled holes at the top and bottom of the mounting strip.
- Ensure the box does not move too much in windy weather.
- If you remove the nest box, be sure to also remove the screws.

Maintenance

Regularly check your box to make sure that the intended species has not been driven from their nest, and always contact an apiarist if honeybees take over the nest. Introduced birds (like Common Mynas or Starlings) are unlikely to move into these boxes because the opening is too small, but always keep an eye on it.

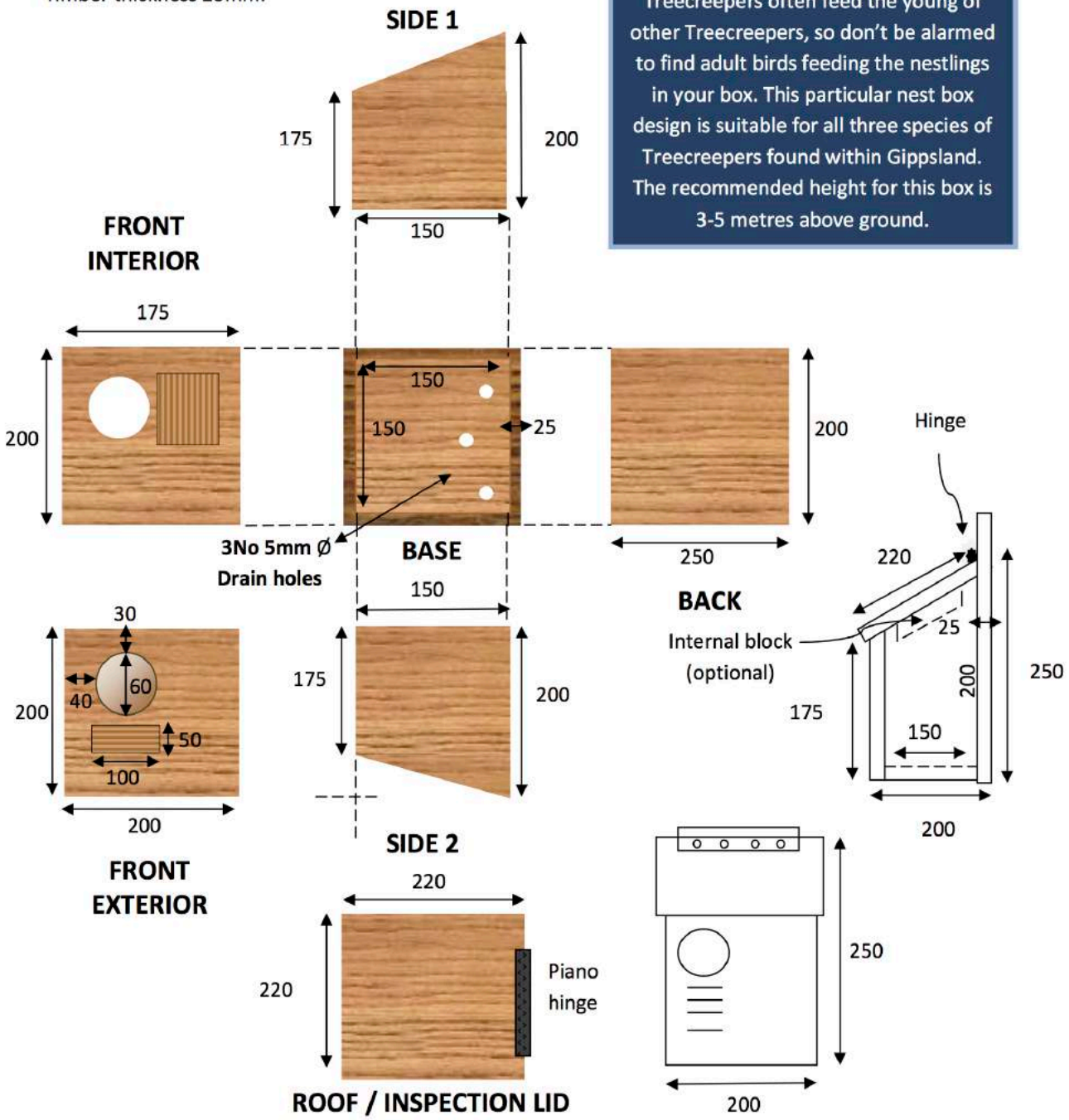
After the chicks have fledged and the adults have left the box, clean it out to prepare it for next year. Remember that trees grow in girth as well as height, and be sure to check the fixings on the box every year or two to adjust for growth.

TREECREEPER NEST BOX

Bird Nest Box

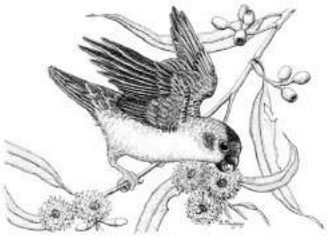
Measurements are in millimetres (mm).
Timber thickness 25mm.

Treecreepers often feed the young of other Treecreepers, so don't be alarmed to find adult birds feeding the nestlings in your box. This particular nest box design is suitable for all three species of Treecreepers found within Gippsland. The recommended height for this box is 3-5 metres above ground.



Nest Boxes for the Gippsland Region
By: East Gippsland & Maffra and district Landcare Network

Nest Boxes – Technical Information



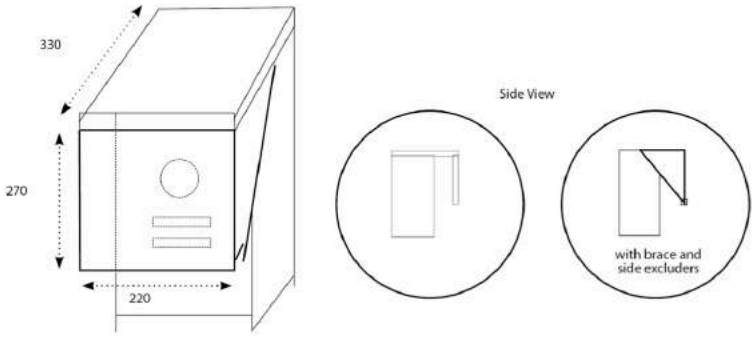
Purple-crowned Lorikeet © BirdLife Australia

Nest boxes are an important aspect to wildlife conservation in any areas where natural nesting hollows are not available. This information sheet provides a little extra technical assistance for anyone who wants to go the next step, and make or install a nest box. For a general introduction to the importance of nest boxes, please read BirdLife Australia Information Sheet entitled 'Nest Boxes for Native Birds'.

The Anti-Myna Baffle

The Anti-Myna Baffle is a simple device which shields the entrance hole to the nest box, and prevents Common Mynas from entering (they always fly directly to the entrance of the nest hollow), while allowing access to rosellas and other parrots, which usually climb up to the entrance of their nesting hollow, and so are able to climb between the baffle and the nest box. It is important to provide a 'ladder' for the parrot to climb up the entrance — chisel or saw a few horizontal grooves into the front of the nest box, or attach a small piece of wire mesh that they can climb up, but do not attach a stick, which may allow Mynas to land there.

The distance that the baffle is placed in front of the nest box should be the same as the diameter of the entrance hole.



A Few More Useful Tips for Nest Boxes

- Add a few wood shavings to the bottom of your nest box; some parrots will not nest there without them.
- In vertical (or steeply sloping) nest boxes, t is a good idea to install a 'ladder' for birds to climb out of the nest, especially if the inner surface of the nest box is relatively smooth. A few horizontal grooves, either sawn or chiselled into the wood will act as 'steps', as will a strip of wire mesh.

- Drill a few drainage holes in the floor of the nest box.

Recommended Dimensions for Nest Boxes

The different requirements of our wildlife necessitate that nest boxes are specially designed to incorporate essential features that mimic the characteristics of their natural nesting hollows. Here are the vital statistics for nest boxes designed to be used by certain species.

SPECIES	INTERNAL DIAM (mm)	DEPTH/LENGTH (mm)	ENTRANCE DIAM (mm)	VERTICAL/HORIZ.	HEIGHT (m)
Black-Cockatoo, Glossy	300	870–1000	160 x 200	v	
Boobook, Southern			150	h	
Cockatoo, Sulphur-crested			150	v	
Corella, Little			150		
Corella, Long-billed			150		
Duck, Australian Wood	200	500	120	v	
Duck, Pacific Black	450 x 300		120	h	
Galah	200	650	120–150	v	6
Kestrel, Nankeen	400	750	100	v	5
Kingfisher, Sacred	130	600–900	75	h	5–10
Kookaburra, Laughing	300–400 x 150–200	500–600	open, >130	h	5–10
Lorikeet sp.	120	600	60	h	5
Lorikeet, Little			25–30		
Lorikeet, Musk			25–30		
Lorikeet, Purple-crowned			25–30		
Owl, Eastern Barn	400	750	open, >150	h	5
Owlet-nightjar, Australian	100–150	300–400	30–120	v	5
Pardalote sp.	120	400–500	30–45	h	5
Pardalote, Striated	90–200 x 120–150	200	25–35	v/h	
Parrot, Red-rumped	100–240	400–600	25–120	v/h	5
Rosella sp.	120–200	350–800	70–120	v/h	5
Rosella, Crimson	150–200	350–800	75–100	v/h	5–6
Rosella, Eastern	135–240	350–800	60–100	v/h	5–6
Shrike-thrush, Grey	150–200 x 200–300	150–300	open, >150	h	
Swallow, Welcome	130		open	h	3
Teal, Chestnut	200–400 x 300	450–750	80–120	v	1.5
Teal, Grey	200–450 x 300	450–750	80–120	v	1.5
Treecreeper sp.	90–150	100–400	50–80	v	
Treecreeper, White-throated	75–100	300–400	50–70	v	5
Antechinus, Yellow-footed			20–25		
Bat sp.	70–100 x 150–240	200–250	15–20 (slit)	v	
Bat, Chocolate Wattled			10 (slit)		
Bat, Gould's Wattled			10 (slit)		
Bat, Lesser Long-eared			10 (slit)		
Brushtail-Possum	210 x 240–320	380–400	90–150	v	4–8
Glider, Feather-tailed			20–25		
Glider, Squirrel			60		
Glider, Sugar	200–250	300–450	25–50	v	4–8
Phascogale, Brush-tailed			25–30		
Ringtail-Possum	250	350–400	60–90	v	4–8

Further Reading ~ for specific nest box designs, consult any of these references:

Adams, George Martin. (1980). Birdscaping Your Garden. Rigby, Adelaide.

Bendigo Field Naturalists Club. (n.d.). Cosy Abodes for Fur and Feather. (leaflet).

Elliot, Rodger. (1994). Attracting Wildlife to Your Garden. Lothian, Melbourne.

Grant, Peter. (2003). Habitat Garden. Attracting Wildlife to Your Garden. ABC Books, Sydney.

Melbourne Zoo Education Service. (n.d.). Nest Boxes for Native Birds and Mammals. (leaflet).

Morrison, Rob. (1996). The Nestbox Project. Nature Australia 25(5): 56–63.

Pedler, Lynn. (1996). Artificial nest hollows for black-cockatoos. Eclectus 1: 13.

Pizzey, Graham. (2000). The Australian Bird Garden. Creating Havens for Native Birds. Angus & Robertson, Melbourne.

RSPCA. (n.d.). Learn to Live with Possums. (leaflet).

Trainor, Russell. (1995). Artificial nest-hollows. Bird Observer 759: 5–7

Good luck and enjoy!

Included are designs that I could find, for the species that occur in your region. There are not free online designs available for all species. However don't forget that at the start of this booklet, there is a species list that includes all the preferred entrance diameters for the native animals that occur in this region. Please do refer to these, and select a small, medium or large nest box design from above, however just make the entrance diameter that of the desired species from the list.

Studies have found that hollow using species are initially absent from badly burnt ecosystems (0-15yrs), and when they do return, are in very small numbers compared to pre-fire populations - studied from memory out to 50 years. Tree hollows take decades (tiny) to hundreds (large) of years to form. So there is a very big need for artificial tree hollows to be added to the huge areas of bushfire-affected ecosystems

Most of our native hollow-using species are tiny, small or medium sized, with only a small number of large individuals and species for any location. So nest boxes really need to be made to match this natural balance, for the bushfire affected ecosystems, where many of all sized tree hollows will have been lost.

There have already been hundreds of large brushtail nest boxes made across Australia for the bushfire recovery efforts.

An important consideration is the need for small to medium sized nest boxes to be made with a variety of entrance diameter sizes to keep all the slightly different hollow using species safe from slightly and much larger predators and predators. Most of our native animals compete with each other for scarce tree hollows. Slightly different hollow entrance sizes are important for enabling the different sized species to find a spot that is safe from slightly bigger predators and competitors, the difference often is only 5mm.

Thank you so much for making a difference.

Our native wildlife desperately need a helping hand to survive this current living hell of bushfire and drought. We really don't want to lose more than we already have. Sure, we will probably lose some at-risk species because of this season's bushfires and the ongoing drought. But don't forget all the other wonderful native animals out there that we have the chance, right now to help survive. While we cannot undo the past, we can change the future to some extent depending on our choice of actions.

Every little tiny bit of difference made, cumulatively makes a big difference if many participate. Thank you so much for your contribution.

This is one of my contributions.
I hope you find this helpful.

Compiled by Alice McGlashan
Facebook: https://www.facebook.com/groups/nestboxtales/
Website: www.nestboxtales.com
Sharing stories and knowledge about nest boxes for Australian native animals to encourage everyone to improve habitat for wildlife.