

## Connecting Country (Mount Alexander Region Inc.)

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## Nestbox Monitoring Strategy

A strategy for locating and monitoring the use of nest boxes by wildlife is part of the overall plan for monitoring the outcomes of the Connecting Country program.

### Objectives:

1. To use nest boxes to monitor the distribution and status of the Brush-tailed Phascogale as a key indicator of the ecosystem; and also other arboreal mammals (e.g. Sugar Glider, Feathertail Glider) and woodland birds in the region
2. To use nest boxes as a means for landholders and others to be directly involved and engaged in the project by establishing nest boxes on their properties
3. To use nest box monitoring as an educational tool and for promoting the overall project
4. To use nest boxes as part of our long-term monitoring strategy to monitor changes in the environment over a decade or more

### Type of nest boxes:

400 nest boxes suitable for the Brush-tailed Phascogale, with the following specifications;

- 200 x 240 x 350mm external dimensions,
- 200 x 162 x 350mm internal dimensions,
- 37mm hole in the back,
- hinged sloping lid
- numbered on the bottom
- mounting strip on back.

### Location of nest boxes:

1. The strategy for locating nest boxes is shown in Figure 1. Our aim is to locate nest boxes systematically so that we can examine some of the factors that might influence whether they are used by Phascogales or other animals. Factors we will test are:

- different parts of the region (east to west – corresponding to Landcare groups)
- sizes of blocks of bush (large = greater than 50 ha, small = less than 50 ha))
- type of vegetation (slope = Red Stringybark/Red Box/Red Ironbark dry forest; gully = Yellow Box, River Red Gum forest/woodland)

These give us 16 combinations (see Figure 1) of types of sites to set out nest boxes.

2. At each site, our 'rules' for locating nest boxes are:

- position them on 'rough barked' trees, where possible, rather than gum barked, just south of east, about 110o magnetic.
- preferably on larger trees, but trees must be at least 30 cm (12 inches) diameter in size
- at a height of approximately 3 m to 3.5 m above ground
- do not place in trees that have existing hollows

3. At each site we will install 3 nest boxes spaced approximately 50 m apart.

### Field monitoring of nest boxes:

It is preferable to use the most non-invasive method of studying an animal so as not to interfere with its behavior and breeding success. Therefore if possible a pole mounted camera can be used to monitor next boxes and if needed photograph inside the box.

If the use of a camera is not possible then best practice is:

- Always be safe and secure your ladder to the tree.
- Always work in pairs with one person holding onto the ladder.
- Place sock (or the like) over hole
- Raise nest box lid and slide clear plastic plate over exposed lid (this prevents animals escaping and potentially being predated on).
- After observing contents of box, close lid and slide out plastic.
- Gently remove sock

Nest boxes will be checked once a year in March as part of systematic monitoring and data on use of each nest box will be recorded. At other times, some nest boxes may be checked for educational or communication purposes. Care should be taken when monitoring at other times, especially around the breeding season in spring. Observing the nest boxes at dusk is preferred.

### Data collection and storage:

When each nest box is installed, we will collect data on its number, location (including GPS), vegetation type, tree in which it is installed and height etc (see example table below).

Each time nest boxes are systematically checked, data will be entered to describe whether used or not used, and if used species recorded.

Data will be coordinated and held by Connecting Country in Castlemaine to ensure safe long-term storage. This data can then be used for newsletters, other communication, and for collating and analyzing the use of nest boxes.

## Locations for nest boxes

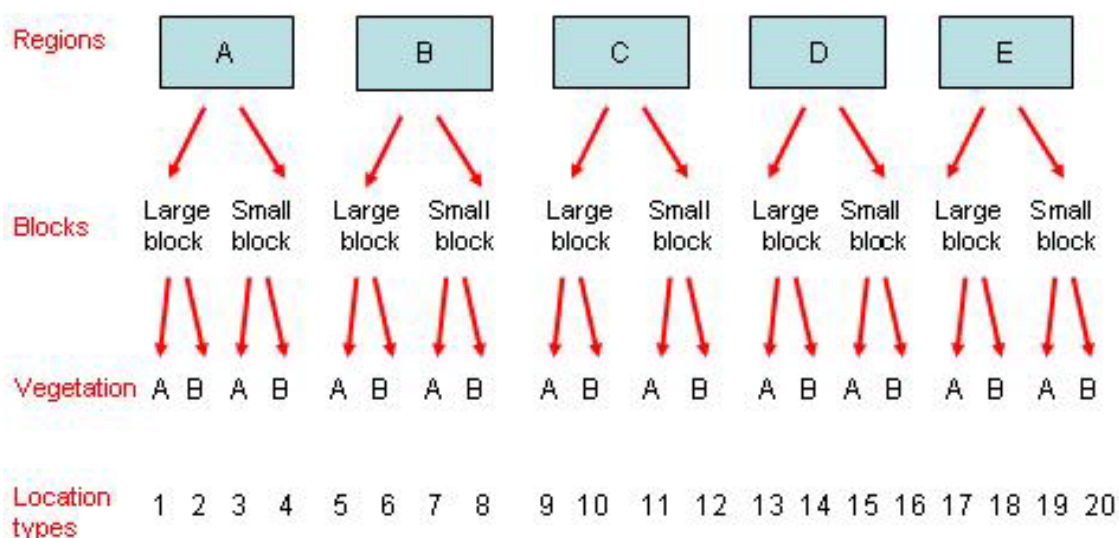


Figure 1. Strategy for locating nest boxes.

**Region:** Nest boxes will be located in five geographic areas across the region;

A = North East: Sutton Grange/Harcourt,

B = South East: Elphinstone/Taradale/Metcalf,

C = Central: Chewton/Castlemaine/Muckleford,

D = South West: Newstead/Guildford,

E = North West: Maldon/Barrington/Nuggety

**Block:** In each region, we will install nest boxes in larger blocks of bushland (e.g. larger than 50 ha) and smaller blocks (e.g. 5-50 ha)

**Position:** We will aim for having nestboxes in different kinds of vegetation in these larger and smaller blocks, particularly vegetation in gullies or lower areas (A) (Yellow Box, River Red Gum, Grey Box), or on drier slopes (B) (e.g. dry forest of stringybark, box, ironbark).

**Location types:** this approach results in 20 possible location types, or combinations (see numbers 1-20). For example:

1 = Region A in a larger block in gully vegetation

8 = Region B in a smaller block on slope vegetation

We will aim to have clusters of 3 nest boxes at a site, with at least 5 sites representing each of these location types (i.e. 20 combinations x 5 sites = 100 sites minimum (= approx 300 nest boxes). The remaining 100 nest boxes will be located where there is high level interest.

