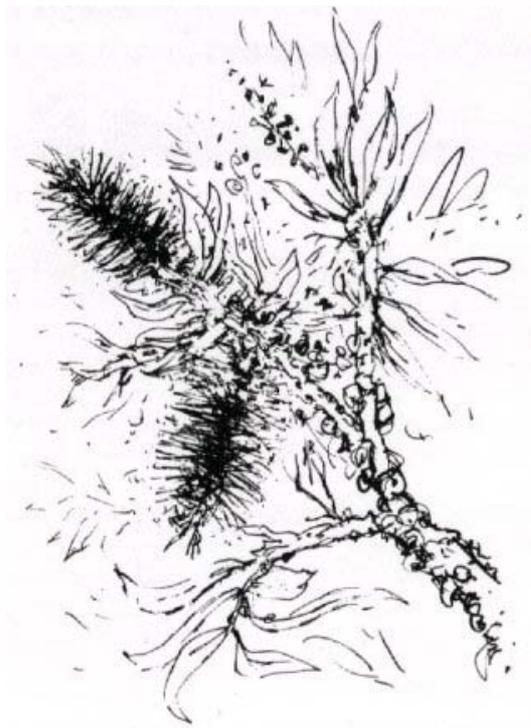


Going bush

**Understanding, restoring and
recreating indigenous bushland**



Sample activities from the Gould League Resource book *Going Bush*.
Produced in conjunction with the Royal Botanic Gardens Cranbourne



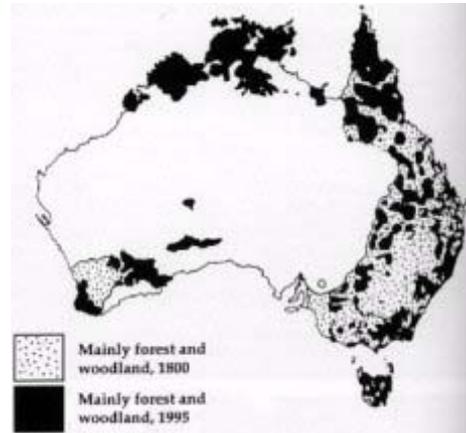
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www.gould.edu.au, email:

Finding fragments of the Australian bush

DID YOU KNOW?

When Europeans first settled Australia the bush was much more extensive than it is today. The growth of towns, the spread of farms and the development of the land for other uses led to the clearing of large areas of bush. What remains is scattered across the landscape. These remaining patches of bush are called remnants.

This map shows the clearing and fragmentation of the bush in Australia over the last 200 years.



Bush treasure maps

Map 1 Bushwalking

- Draw a small sketch of your house and backyard, labelling important features. The map should be no larger than 1/4 of this page.
- Stick this small page in the centre of a large piece of butcher's paper.
- Draw the biggest circle you can on the butcher's paper, keeping your home in the centre. The edge of the circle is the furthest you could walk from your house in twenty minutes in any direction. This is your bushwalking area. Now mark on the map all of the things

Map 2 Bush cycling

Make a small copy of your bush walking area and stick it in the middle of a piece of butcher's paper, keeping your bushwalking area in the centre of the circle.

The edge of the circle is the furthest you could ride a bicycle from your home in twenty minutes and in any direction. This is your bush cycling area. Now mark on the map all of the things that you would see on bush bike rides inside your bush cycling area.



How many shaded areas are on your map?

Are they scattered or close together? Compare your maps with others.

What best describes the amount of bush in your area?

- There are many large areas of bush
- There are many small remnants of bush
- There are a few scattered remnants of bush.

Above the bush

Aerial photos are great for an accurate look at where things are in your local area, and because some aerial photos might be as old as fifty or sixty years they can also show the changes that have taken place over long periods of time.

Aerial photos of your area are usually available from your local library or council. When first looking at an aerial photograph, look for familiar landmarks like major roads and rivers. This will make it easier to find your way around the photograph.

Compare what you see on the aerial photo with your bush treasure maps. How good a map maker are you?

How many patches are there?

- What shapes are they?
- Where are they found? Along roads, railways ways, or rivers? On farms? In urban areas?
- What size are they?

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How could you measure their size? If you know the distance between landmarks in your area, you can work out the scale of the photo, and from that the lengths of the bush boundaries, and finally the area. If the bush area is irregular in shape, estimate its area by counting how many squares of 1 centimetre can be fitted into it, then applying your scale.

Instead of working out the scale of the photo, you could shade the photographed areas of bush onto a published road map of the local area. Use the scale of this map to help work out the area of each patch of bush.

If you are able to look at aerial photographs which span a number of years, write down the changes which have occurred in the area, in particular how the bush patches have changed.



Try to visualise what the patches of bush would look like on the ground. Take some photos of local remnants. Each photo should have a reference point (fence, building, road, or hill), which can be used to identify its location.

Above the bush

Ask your group to:

- locate the photos on a reduced version of the road map
- describe the bush remnants note any major differences or similarities.

Remnants can vary greatly in size. They could cover many square kilometres or consist of only one large, old tree. One of these old trees could be in your backyard, the school ground, a local park, or along the road.

Why are the remnants still there?
Why weren't they cleared too?

Here are some possible reasons. the land was too rocky, too steep or too isolated to clear, the land was reserved for: bush conservation, water conservation

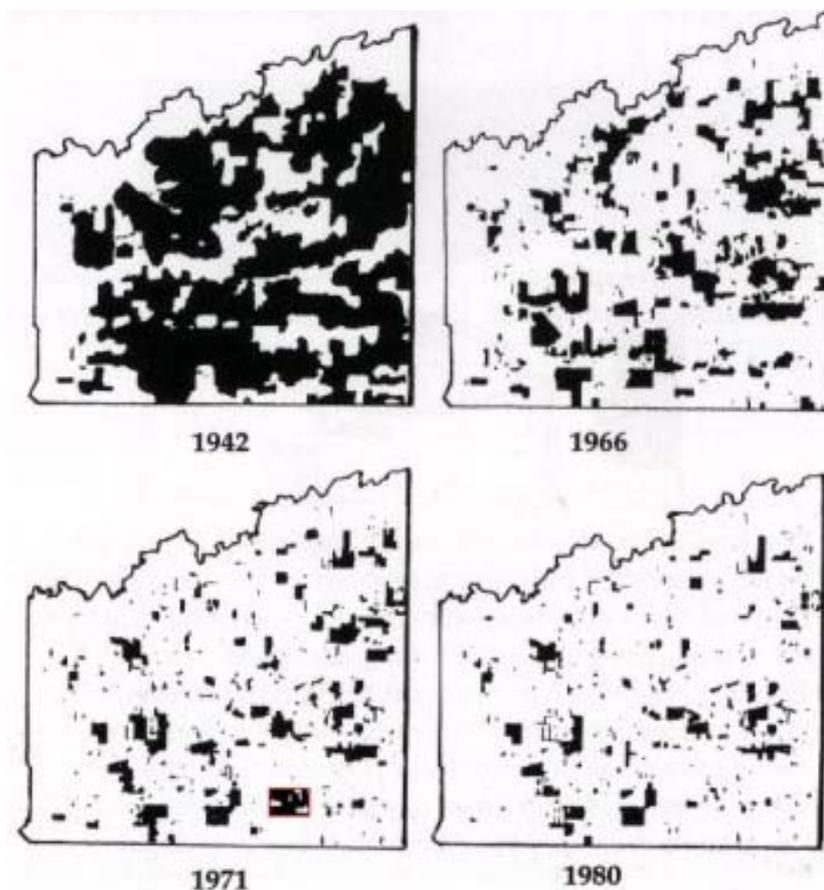
military purposes forestry or people simply liked the area or didn't get around to clearing it.

Some bush remnants are relatively new.

They could be areas of regrowth after the original bush has been used for farming and then abandoned.

They could even be areas which have been replanted for conservation reasons.

Speak to people who have lived in your area for a long time or visit the local council or library.



Loss and fragmentation of bush at Naringal, in south-western Victoria (from Bennett 1990). Remnant patches (shaded) have become smaller and more isolated.

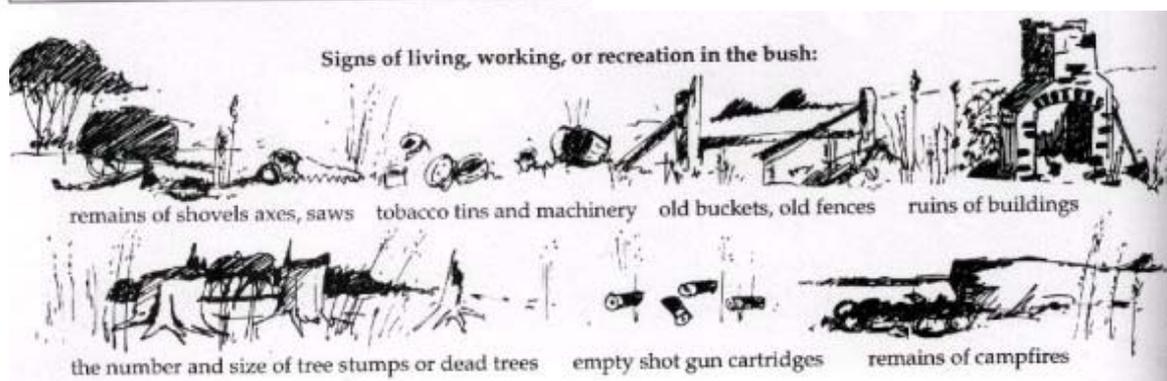
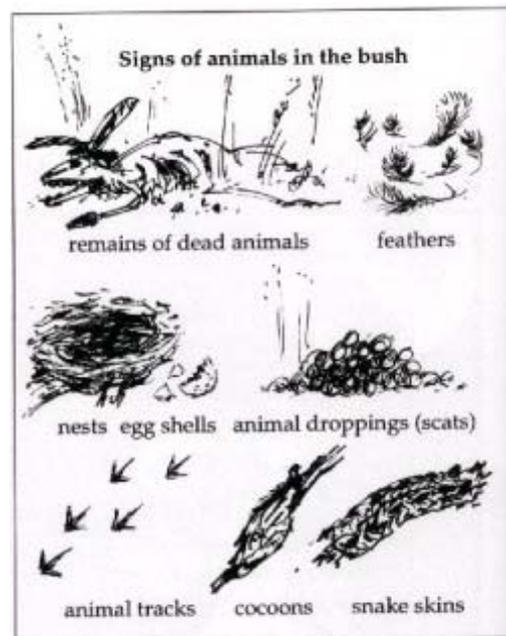
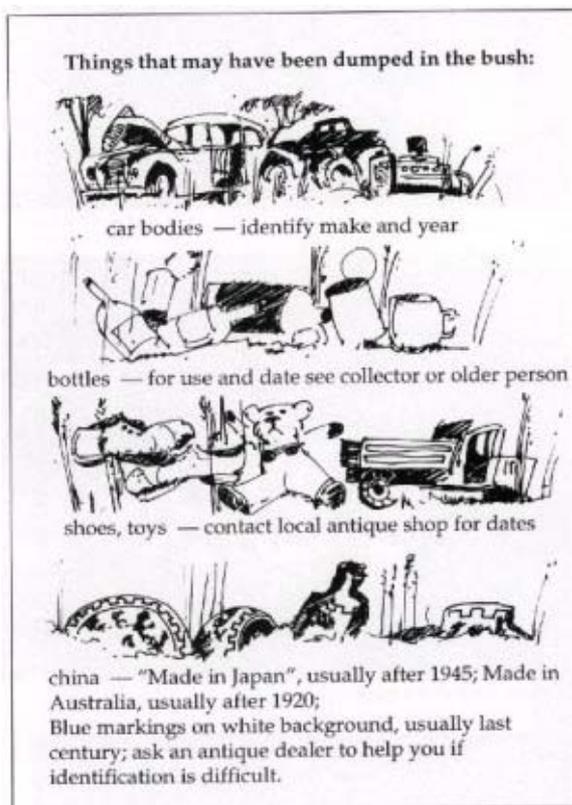
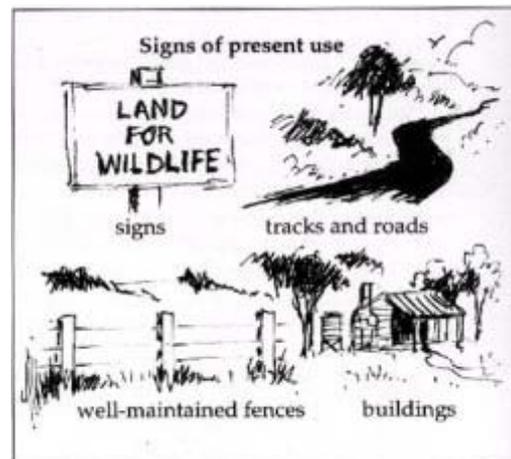
Bush Archaeology

What clues can you find in your patch of bush that show how the area was once used and is being used?

Write a story about how some of these things got to be in your patch.

Ask older people in your area about the history of your patch.

What can you find out about the future use of the bush area? You could visit your local council for information about



Hello Hollow

Many Australian native animals – parrots, possums, owls, numbats – live in tree hollows and hollow logs which have fallen onto the ground. The tree hollows are usually opened when a branch breaks from the trunk of a tree. Generally, the older the area of bush, the more hollows you will find. As a result, many Australian native animals require older areas of bush.

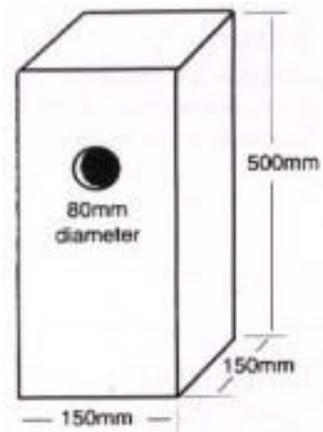
Select a small area of bush and count up the number of hollows that you can find. Describe the location of each hollow. Is it a log in a gully, a hollow high up in a tall tree or a hollow at the base of a tree?

Look on the ground beneath the hollows in the trees or around the logs. Is there any evidence of what might be using the hollow? If an owl lives in the hollow you might find pellets which comprise the undigested remains of animals the owl has eaten. Scientists use these remains – bones and fur – to help identify other animals living in the area. Because it is extremely difficult to differentiate owl pellets from fox droppings it is not advisable to touch or collect them, for health reasons.

Look at the entrances to the hollows. For the ones high up you might need to use binoculars. Are there any scratch marks on the trunk of the tree? What else can you observe at the entrances?



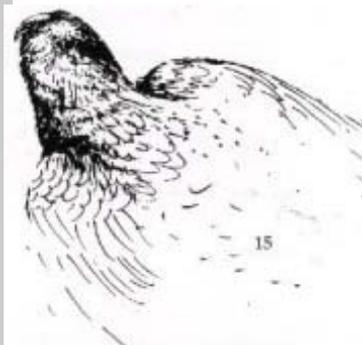
Kingfisher feeding young in nesting hollow.



Did you know?

When clearing has removed older trees with hollows you can help wildlife by attaching nestboxes to trees.

This will give animals such as parrots and possums a chance to breed which they would otherwise not have. You may have to clear out several starling, sparrow or mynah nests before the desired occupants set up house. This diagram shows a nest box suitable for parrots and ringtailed possums. Designs for other animals are available from the Gould League. Nest boxes should be tied to the



Restoring your patch

The first priority for the conservation of plants and animals is the maintenance of natural habitats to protect species in their natural communities, in the wild. Even the conservation of small tracts of land can be important for the overall survival of our plant and animal species.

Conserving areas of native vegetation in reserves such as national parks is one step in an overall scheme to protect biological diversity. However, simply placing bushland areas within national parks is not always enough. The effects of weed invasion, introduced animals and other inappropriate land uses are still causing the slow decline of many reserves, especially the smaller ones and those with urban areas nearby.

Private landholders can make a substantial contribution by managing portions of their property to conserve native vegetation and wildlife, and many people are now taking active steps to help restore natural biodiversity by protecting, restoring, replanting or regenerating some of the natural communities in their region. By protecting the remaining native vegetation and strategically revegetating cleared land, they can help restore and conserve the ecosystems on which we all depend.

Bush regeneration is turning a patch of bush from a weed-infested or otherwise degraded plant community into a healthy community composed of local native plants. Bush regeneration techniques include:

- broad-scale treatment of weeds across the whole site to reduce and finally eliminate them.
- if necessary, the careful use of herbicides to help remove weeds.
- controlling land uses which disturb soil or bushland areas.
- creating opportunities for the regeneration of local native plants
- reducing disturbance from humans, including clearing, stock grazing,
- trampling, changes to drainage patterns and nutrient levels, digging for worms, removal of firewood and other materials.



Spraying of weeds may be necessary, contact your council



Private landholders can conserve wildlife