

# Understanding your patch

*Shrubs*



*Trees*



*Herbs*



*Grasses*



*Soils*



*Ground layer*



# Trees - What to look for . . .

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**A mix of trees of different ages** is more functional and provides more services. Mature trees reduce wind velocity, have deep roots to use groundwater and are a vital seed source. Younger trees use soil moisture for growth and provide an insect food source for fauna.



**Fruits, flowers and seeds** are an important food source for insects, birds and small mammals.



**Hollows in trunks and branches** provide vital shelter and breeding sites for native fauna. Hollows only occur in mature trees and can take over 100 years to form.

**Trees of different heights** provide structure, habitat and shelter for native fauna from wind, sun and rain.



## Threats

**Removal of trees** results in the loss of habitat and food resources for native fauna.

**Stock camping in the remnant** rub and ring bark mature trees and cause nutrient enrichment which can lead to outbreaks of insects which results in tree die-back. Stock camping also causes twigs, litter and the biological soil crust to be broken up. This exposes the top soil and reduces the amount of ground cover that is vital for seed germination.

**Grazing by stock and pest animals** results in the loss of young plants and affects seedling survival and growth. Grazing causes soil compaction and increases nutrient levels, weediness and the amount of bare ground within the patch.

**Pruning of branches** removes the mid-storey vegetation which is important habitat for insects and birds.

## Actions you can take

- ✓ Retain trees of all sizes, including old and dead trees
- ✓ Limit stock access (see page18 & 19)
- ✓ Fence to protect seedlings and young trees
- ✓ Control pest animals and plants



✗ Stock camping

# Shrubs - What to look for . . .

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**A range of shrub species** means greater functional diversity. Species diversity provides native fauna with habitat and food sources year round.



**Fruits, flowers and seeds** are an important food source for insects, birds and small mammals.



**A diversity of shrubs of different heights,** provide structure and shelter for native fauna from wind, sun and rain. Shrubs stabilise the soil and provide a seed source for regeneration.



## Threats

**Stock camping in the remnant** causes twigs, litter and the biological soil crust to be broken up. This exposes the top soil and reduces the amount of ground cover that is vital for seed germination.

**Grazing by stock and pest animals** results in the loss of young plants and affects seedling survival and growth. Shrubs often have short-lived seed therefore regular grazing will eliminate grazing sensitive shrubs quickly and permanently.

**Pest plants and weeds** compete with native plants for space to germinate and essential resources including nutrients and water. They can dominate a site and prevent recruitment of native plants.

## Actions you can take

- ✓ Limit stock access and strategically balance grazing for feed, shelter and conservation (see page 18 & 19)
- ✓ Support natural regeneration (see page 16)
- ✓ Plant or sow-in missing species in a good wet year
- ✓ Retain fallen debris, as this promotes regeneration by protecting seedlings from grazing
- ✓ Control pest animals and plants



✗ Weed infestation

# Grasses, Rushes & Herbs - What to look for . . .

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## **Grasses, rushes and herbs**

increase the amount of ground cover, stabilise the soil and provide important habitat for native fauna such the Samphire Skink.



## **A range of grass and herb species**

means greater diversity, providing a range of different habitats and food sources. Summer and winter active species limit opportunities for annual weeds.



## **Fruits, flowers and seeds**

are an important food source for insects, birds and small mammals. The native fauna supported by these floral resources play a very important role in pollination.



**Perennial cover** year round supports healthier soils and nutrient retention.

## Threats

**Stock camping in the remnant** increases nutrient levels and weediness. Stock camping also causes twigs, litter and the biological soil crust to be broken up. This exposes the top soil and reduces the amount of ground cover that is vital for seed germination.

**Grazing by stock and pest animals** results in the removal of plant biomass, causes soil compaction and increases the amount of bare ground within the patch.

**Pest plants and weeds** compete with native plants for essential resources including nutrients, water and sunlight. They can dominate a site and may prevent recruitment of native plants.

**Nutrient input** is primarily from stock manure. High levels of nutrients encourage weediness and act as a barrier to the recolonisation and dominance of native perennials.

**Non target herbicides and spray drift kill** native species, increase germination opportunities for annual weeds and potentially pollute the soil.

## Actions you can take

- ✓ Limit stock access
- ✓ Manage grazing around flowering time (see page 18 & 19)
- ✓ Limit grazing to maintain grass height
- ✓ Control pest animals and plants
- ✓ Manage the edge of the remnant (see page 16 & 17)
- ✓ Only undertake informed spraying



✓ Controlling pest animals

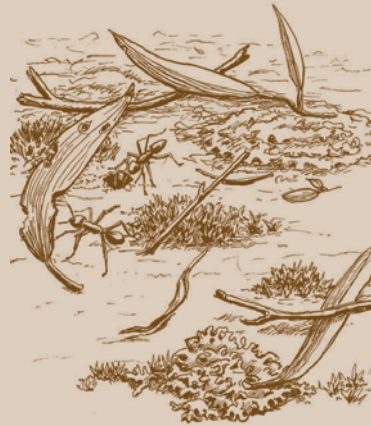
# Ground Layer & Soils - What to look for . . .

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**Leaf litter and twigs on the ground** are important habitat for fungi and native fauna such as the Bush Stone-curlew and small reptiles. Litter and twigs act as a resource trap, trapping wind blown sediment and seeds.



**Fallen timber** provides important habitat for fungi, shelter for native fauna, acts as a resource trap and can protect native plants from grazing pressure.



**The biological soil crust** is the mosses, lichens, liverworts and algae that inhabit the top few millimetres of soil. The crust stabilises the soil, fixes nitrogen and carbon, regulates water infiltration and encourages seed germination.



## Threats

**Physical disturbance** by stock trampling and vehicle traffic causes soil compaction, the breaking up and loss of the litter layer and the destruction of the biological soil crust. Disturbance exposes the top soil to loss and erosion and favours weed germination.

**Pest animals** such as rabbits destroy the biological soil crust by digging and expose the soil to erosion.

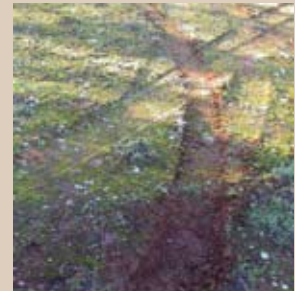
**Removing fallen timber** results in the loss of habitat for many fauna species including invertebrates, reptiles and ground dwelling mammals. Fallen timber influences the vegetation as it affects soil moisture, structure and nutrient levels while enhancing recruitment by providing protection to seedlings.

**Burning to reduce litter and twigs** reduces the amount of ground cover and may destroy the biological soil crust.

**Lack of trees and shrubs** means there is less leaf litter and twigs to provide ground cover.

## Actions you can take

- ✓ Leave leaf litter and small branches on the ground
- ✓ Leave fallen timber
- ✓ Reduce soil disturbance
- ✓ Limit vehicle traffic
- ✓ Limit and manage grazing according to soil type (*see page 18 & 19*)



✗ Vehicle traffic