



# Bush For Life



## A wolf in sheep's clothing: pussy-tail grass invading our bushland by stealth

*Pentaschistis pallida* (hereafter called by its common name, pussy-tail) is another of the cohort of South African natives invading SA bushland, in particular our native grassy landscapes.

Seen individually this master of subterfuge appears to be a mild mannered perennial grass and can easily be confused with some indigenous grasses, especially the wallaby grasses of the *Danthonia* genus.

Pussy-tail has been able to infiltrate many of our valuable remnants and reserves under the very noses of their custodians, only signalling its occupation of the site when its numbers have reached dominant proportions and its true colours become obvious.

It is now found throughout the Mt Lofty Ranges and appears to invade even intact bushlands with ease.

It is likely though, that damaging management practices, such as over grazing and soil damage, enhances its invasive capacity.

Released from the controls exerted by African herbivores, this species provides tough competition to native grasses and other small plants.

It often occurs at much higher densities than native grasses and the dense stands of pussy-tail effectually eliminate the inter-tussock spaces so characteristic of indigenous grassy ecosystems.

The presence of the inter-tussock space is thought to be a critical factor for the presence of many of the precious small plants (such as orchids and lilies) found in grassy ecosystems.

The naturally open structure of native grassy areas is believed to be important to many of the small insectivorous and seed eating birds, which require a clear line of sight into the bushland's ground cover to see their food sources and avoid predators.

### Identification is critical

Positive identification is the critical first step to controlling this dangerous customer.

Mistaken identity is likely to lead to native grasses, especially wallaby grasses, being damaged or eliminated from bushlands.

**If you believe that you have pussy-tail grass on your bush site, seek expert help with identification before you take action.**

Pussy-tail is a perennial grass about 30cm high. Its growth period starts in the cool season with it greening up very quickly after autumn and winter rains.

When not in flower or with a seed head, it can be difficult to tell it apart from wallaby grass.

### Separating the wallaby from the pussy-tail

Flowering occurs in spring to early summer, and this is the time that it is easiest to tell it apart from the native grasses.

In general, wallaby grass has a pale seed head whereas the pussy-tail, when it is fully mature, has a dense golden brown flower head.

When there are a large number of these grasses in flower the golden brown colouring becomes quite distinctive. Unfortunately, at this point the invasion has probably reached difficult proportions.

When identifying scattered or individual plants it becomes important to distinguish a pussy-tail flower or seed head from that of a native grass.

The inflorescence (flowering head) of the pussy-tail is made up of much finer spikelets (a spikelet is the basic unit of the grass inflorescence), see photo.

The weed has a much smaller seed (up to 2mm long) the head is tighter and is dark fawn in colour.

Native *Danthonia* grasses have larger seeds (at least 3mm long) and the head is more open with a light straw colour.

### How to control it

Early control of invasions is critical for sites relatively free from this plant, as control becomes more difficult as the invaders become intermingled with the native plants. Constant vigilance will pay off a hundredfold.

Start your control from the least invaded areas and work towards the worst areas.

According to Peter Watton, a Regional Coordinator with Bush For Life, spot spraying with Glyphosate™ when the plant is actively growing will be effective.

However, Peter points out that inevitably parts of some tussocks will be missed and it may be necessary to remove by hand, any parts that continue to grow.

He recommends that you do not dig up the larger clumps to avoid excessive soil damage.

Care should be taken to minimise spray drift damage to native plants, careful dribbling or spraying of herbicide at low pressure over the plant will help avoid off target damage.

Peter suggests that areas dominated by the weed, should be slashed/brushcut in mid-



*Danthonia geniculata* (knead wallaby grass) one of the many wallaby grasses which are similar to pussy-tail, but can be distinguished when in flower.



*Pentaschistis pallida* (pussy-tail), note the very small spikelets which make up the inflorescence.



Peter Watton's Bush For Life site at Shannon Reserve, Coromandel Valley. Above: January 2001 with a heavy invasion of pussy-tail grass.

Below: January 2002. Wallaby grass and *Acacia pycnantha* have regenerated on the site.



spring to early summer before the seed matures, to reduce seed set.

Special care should be taken to minimise damage to natives if their regeneration is to be encouraged. The best and cheapest way to maintain the integrity of your bushland is to harness the native vegetation's natural resilience.

Resilience can be ensured by management which is sympathetic to the vegetation's life cycle and allows for the maintenance of a dense and competitive ground cover.

Good luck and keep your eyes peeled.

*Tim Read, eastern hills grassy ecosystems project officer.*

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For further reference: *Grass identification manual*, Joan Gibbs 2001, Native Grass Resources Group Inc. SA. available from the Trees For Life office for \$25.00.

**Sources:** Thank you to Peter Watton, Bush For Life Regional Coordinator, for his advice and site photos and to Peter Tucker, Bush For Life's Technical Officer for his comments on the article.

The pressed plant photos are from the herbarium of the Native Grass Resource Group SA.

