

To the natural philosopher there is no natural object unimportant or trifling ... a soap bubble ... an apple ... a pebble ... He walks in the midst of wonders.

John Herschel (1792-1871): A Preliminary Discourse on the Study of Natural Philosophy (1830)

Edition 1

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About the author

Dr Ross A. McKenzie PSM BVSc (Hons) MVSc DVSc (1949 –) is a retired veterinary pathologist and toxicologist who worked in the Queensland Department of Primary Industries during 1973-2009 and taught toxicology to veterinary students at the University of Queensland during 1994-2008. He is also an amateur botanist and photographer. In retirement, Ross wrote and illustrated the definitive 976-page *Australia's Poisonous Plants, Fungi and Cyanobacteria: A Guide to Species of Medical and Veterinary Importance*, published by CSIRO Publishing in 2012, as a plain-language tool for understanding and preventing poisonings by natural toxicants – 'natural' does not mean 'harmless'. His interests include natural history, bush-walking, gardening with Australian native plants and photography of landscape and Australian native flora. As a member of the Society for Growing Australian Plants (now Native Plants Queensland), the Queensland Naturalists' Club and privately with his botanical artist wife Glenyth, he has travelled widely throughout Australia, visiting all states and crossing the continent by road east-west and return several times.

Notice to Guests

This guide is not comprehensive. It covers the plants identified so far on *Grasstrees*. If you come across a plant that is flowering or fruiting and it is not included in this guide, please notify Trish or John Stadtmiller so that it can be investigated and hopefully included in a later edition. Thank you. I hope you enjoy your stay!

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Grasses

Grasses are flowering plants, monocotyledons in Family Poaceae. They are annual or perennial tufted herbs (non-woody plants) with usually long and narrow leaves containing parallel veins. their multiple stems growing in clumps from the roots are mostly hollow between the nodes. The stems carry leaves arranged alternately in opposite rows. Grass leaves consist of blades, flaps (ligules) at the point of contact with the stem, and leaf sheathes that wrap closely around the stem forming a tube split down one side above the node where they are fixed to the stem. Grass flower-heads are carried at the top of stems and comprise numerous spikelets containing the flowers proper (florets) inclosed in bracts (glumes).

Important: Investigation of the grasses on *Grasstrees* is at a very early stage. The few plants included in this version of the guide are only a very small sample of the complete grass flora here.

Dichelachne rara (a plume grass) [Poaceae]



Dichelachne rara (a plume grass): Seed-head



Dichelachne rara (a plume grass): Seed-head



Dichelachne rara (a plume grass): Leaf – base of blade and top of sheath

Themeda triandra (kangaroo grass) [Poaceae]



Themeda triandra (kangaroo grass): Whole plant. Photographed at Port Augusta SA October 2014



Themeda triandra (kangaroo grass): Flowering stems. Photographed at Port Augusta SA October 2014



Themeda triandra (kangaroo grass): Spikelet. Photographed at Port Augusta SA October 2014

Sedges

Sedges are monocotyledons in Family Cyperaceae that often favour fresh-water habitats. They have a 'grass-like' tufted upright appearance. They are perennial herbs with solid stems that are triangular in cross-section. Their leaves lack ligules, are not arranged in opposite rows as in grasses, and have closed leaf sheaths (not split along one side as in grasses).

Gahnia aspera (rough saw sedge) [Cyperaceae]

- Clumped long leaves
- Serrated edges to leaves
- Red-brown shining nuts (fruits)



Gahnia aspera (rough saw-sedge): Plants in habitat



Gahnia aspera (rough saw-sedge): Fruit

Schoenoplectus mucronatus (triangular clubrush) [Cyperaceae]

- Aquatic sedge
- 3-angled leaves



Schoenoplectus mucronatus (triangular clubrush): Plants in habitat



Schoenoplectus mucronatus (triangular clubrush): Flowers



Schoenoplectus mucronatus (triangular clubrush): Flowers

Schoenoplectus validus (river clubrush) [Cyperaceae]

• Aquatic sedge



Schoenoplectus validus (river clubrush): Plants in habitat



Schoenoplectus validus (river clubrush): Flowering spike



Schoenoplectus validus (river clubrush): Flowering spike

Juncus continuus [Juncaceae]

• Aquatic sedge



Juncus continuus: Plants in habitat



Juncus continuus: Fruiting spike

Cumbungi

Typha orientalis (broad-leaved cumbungi, bullrush) [Typhaceae]

- Aquatic perennial
- Flower spike with brown dense velvety cylinder, 1-4 cm across, male & female separated on stem; summer
- Long strap-like erect leaves sheathing, to 2m long x 3 cm wide
- Rhizome



Typha orientalis (broad-leaved cumbungi): Flowering plant in habitat



Typha orientalis (broad-leaved cumbungi): Flower spike