

CYPERACEAE of WESTERN AUSTRALIAN

Compiled by GJ Keighery April 2001

Introduction

In Western Australia there are 389 taxa of Cyperaceae in 32 genera (see Table 1). Cyperaceae is the second largest family of Monocotyledons in Western Australia, exceeded only by the Poaceae (535 species). The largest genera are *Cyperus* (67 species), *Fimbristylis* (69 species), *Lepidosperma* (34 species) and *Schoenus* (81 species).

The Cyperaceae are almost ubiquitous in Western Australia. Only the Nullarbor Plain has no members recorded from within its boundaries, despite collections being recorded from adjacent regions with sandy soils.

Regions of high species' concentrations within Western Australia are the South Western Botanical Province, the Pilbara region of the Eremaean and the tropical Kimberley Region. The Kimberley has 156 species of Cyperaceae, where it is third largest family (after Poaceae 259 and Papilionaceae 164), however, the area has only approximately 16 endemic species (C. 10% of the total).

Six genera (*Crosslandia* (1 taxon), *Evandra* (2), *Mesomelaena* (5), *Reedia* (1), *Tricostularia* (2) and a new genus which has affinities with *Scleria*) are endemic to Western Australia. This is a low number compared to other Monocots such as the Liliaceae (*sens. lat.*) or the Restionaceae. However, like these families a large number (approximately 160) of species are endemic to southern Western Australia.

The Cyperaceae of WA can be grouped into related genera (Tribes) as follows:

Carex Group: *Carex*.

Chrysitrix Group: *Chorizandra*, *Chrysitrix*.

Cyperus Group: *Cyperus*, *Isolepis*, *Kyllingia*, *Lipocarpha*.

Eleocharis Group: *Eleocharis*.

Fimbristylis Group: *Abildgaardia*, *Actinoschoenus*, *Bulbostylis*, *Crosslandia*, *Fimbristylis*.

Fuirena Group: *Bolboschoenus*, *Fuirena*, *Hymenochaeta*, *Schoenoplectus*

Schoenus Group: *Baumea*, *Caustis*, *Cladium*, *Cyathochaeta*, *Evandra*, *Gahnia*, *Gymnoschoenus*, *Lepidosperma*, *Mesomelaena*, *Reedia*, *Rhynchosarpha*, *Schoenus*, *Tetraria*, *Tricostularia*.

Scleria Group: *Scleria*, Gen. Nov.

Unfortunately apart from these broad generalisations little else can be analysed. The Cyperaceae, despite being one of the most important groups of monocotyledons in Western Australia are poorly collected and confused taxonomically.

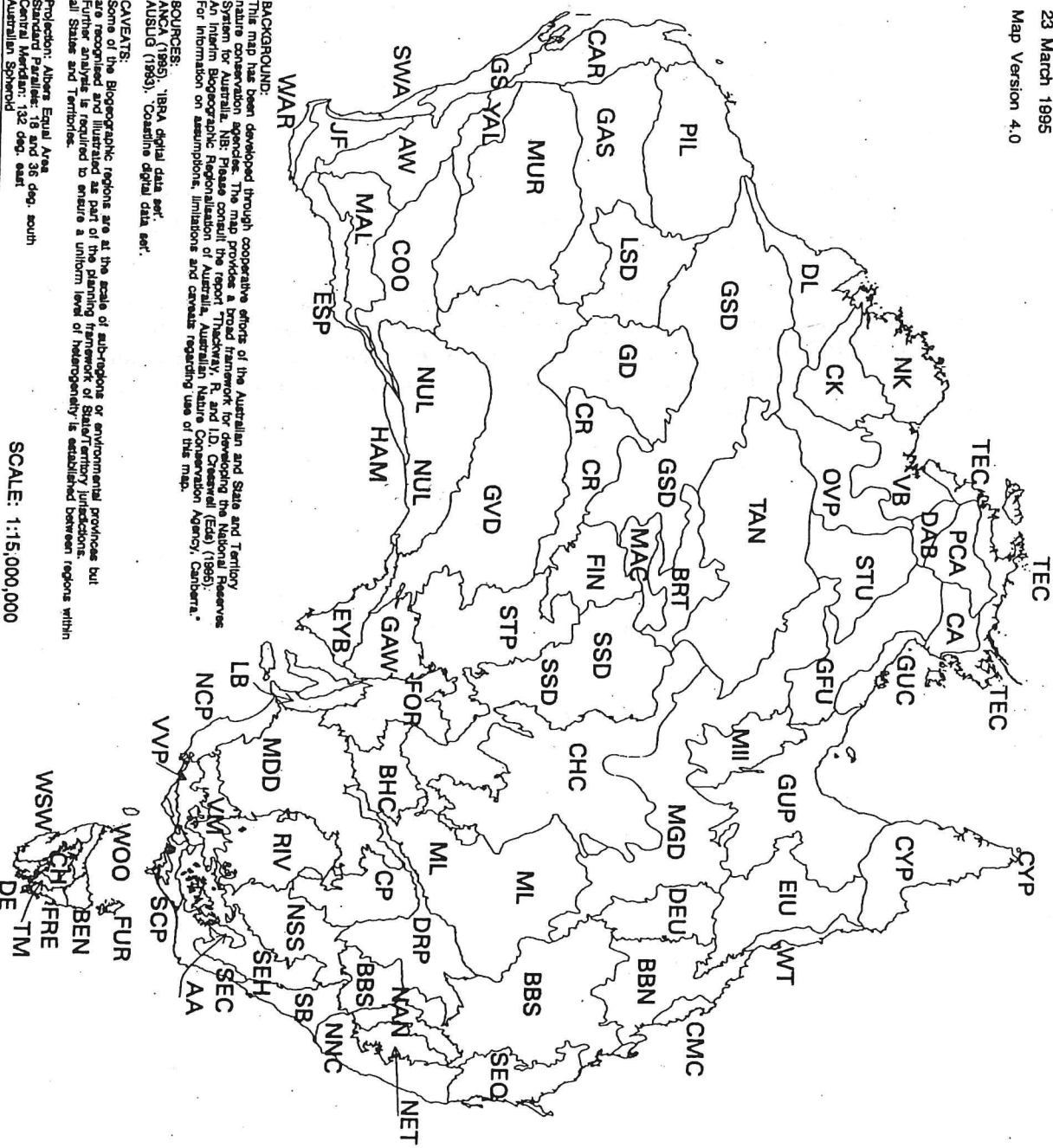
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<http://florabase.calm.gov.au/>

Boundaries of IBRA Regions



- IBRA CODE: IBRA NAME**
- AA: Australian Alps
 - AV: Avon Wheatbelt
 - BBN: Brigalow Belt North
 - BBS: Brigalow Belt South
 - BEN: Ben Lomond
 - BHC: Broken Hill Complex
 - BRT: Burt Plain
 - CA: Central Arnhem
 - CAH: Central Highlands
 - CHC: Channel Country
 - CK: Central Kimberley
 - CMC: Central Mackay Coast
 - COO: Coolgardie
 - CP: Cobarr Peninsula
 - CR: Central Ranges
 - CYP: Cape York Peninsula
 - DAB: Daly Basin
 - DE: D'Entrecasteaux
 - DEU: Desert Uplands
 - DL: Dampierland
 - DRP: Darling Riverine Plains
 - EU: Emslie Plains
 - ESP: Esperance Plains
 - FB: Eyre and Yorke Blocks
 - FIN: Fife
 - FOR: Foothills and Oryz Ranges
 - FUR: Furlong
 - GAS: Gascoyne
 - GAW: Gawler
 - GD: Gibson Desert
 - GFU: Gulf Fall and Uplands
 - GS: Geraldton Sandplains
 - GSD: Great Sandy Desert
 - GUC: Gulf Coastal
 - GUP: Gulf Plains
 - GVD: Great Victoria Desert
 - HAM: Hampton
 - JF: Jerrah Forest
 - LE: Liddy Block
 - LS: Little Sandy Desert
 - MAG: Macdonald Ranges
 - MND: Murray-Darling Depression
 - MD: Mitchell Grass Downs
 - ML: Mtiga Lands
 - MLL: Mt Lofty Ranges
 - MUR: Murchison
 - NAN: Nardoo
 - NCP: Nacopote Coastal Plain
 - NET: New England Tableland
 - NK: Northern Kimberley
 - NNC: NSW North Coast
 - NSS: NSW South western Slopes
 - NUL: Nullarbor
 - OVP: Ord-Victoria Plains
 - PCA: Pine-Creek Arnhem
 - PIL: Pilbara
 - PIL: Pilbara
 - SB: Sydney Basin
 - SCP: South east Coastal Plain
 - SEC: South East Corner
 - SEH: South Eastern Highlands
 - SED: South Eastern Queensland
 - SSD: Simpson-Strzelecki Dunefields
 - STU: Sturt Plains
 - SWA: Swainson
 - TAN: Tanami
 - TAN: Tanami
 - TEC: Top End Coastal
 - TK: Tamarian Midlands
 - VB: Victoria Bonaparte
 - VM: Victorian Midlands
 - VVP: Victorian Volcanic Plain
 - WAR: Warren
 - WOO: Woolnorth
 - WWT: West and South West
 - WV: Wet Tropics
 - YAL: Yalgoo

BACKGROUND: This map has been developed through cooperative efforts of the Australian and State and Territory nature conservation agencies. The map provides a broad framework for developing the National Reserves System for Australia. NB: Please consult the report 'Threats, R. and I.D. Cresswell (Eds) (1996). An Interim Biogeographic Regionalisation of Australia, Australian Nature Conservation Agency, Canberra. For information on assumptions, limitations and caveats regarding use of this map.

SOURCES: IBRA digital data set.
 ANCA (1995). 'IBRA digital data set'.
 AUSLIG (1993). 'Coastline digital data set'.

CAVEATS: Some of the Biogeographic regions are at the scale of sub-regions or environmental provinces but are reorganised and illustrated as part of the planning framework of State/Territory jurisdictions. Further analysis is required to ensure a uniform level of heterogeneity is established between regions within all States and Territories.

Projection: Albers Equal Area
 Standard Parallel: 18 and 36 deg. south
 Central Meridian: 132 deg. east
 Australian Spheroid

SCALE: 1:15,000,000

TABLE 1: CYPERACEAE of WESTERN AUSTRALIAN
Compiled by GJ Keighery April 2001

The Cyperaceae species, sub-species and varieties currently known for WA are arranged in alphabetical order by genus and listed in the genera in alphabetical order by species. An * before a genus name indicates a weed species and ms after the name indicates that the name is a manuscript name. Some species and sub-species listed are yet to be named and are given phrase names or listed alphabetically.

A general description of the following characteristics follows each species

- the plant,
- habitat,
- flowering time and
- distribution in IBRA regions (see Map).

The list has been compiled from herbarium specimens (principally WA Herbarium but some records are from other Australian herbaria), field observations and publications on individual genera and species. The main references are Keighery (1992) and Florabase (Western Australian Herbarium 2001).

ABILDGAARDIA

A. schoenoides R.Br. (Prev. *Fimbristylis squarrosa*)

Tufted perennial, 0.4-1m tall, seasonally damp areas, April to June, N: NK, CK, DL, VB; ER: GSD.

ACTINOSCHOENUS

Tufted perennials, 30 cm to 1 m tall, Flowers brown, flowering May to August, usually in wet sites (at least in Dry).

Actinoschoenus sp.A (C.R. Dunlop 5303)

May to Aug., Sandstone, N; NK.

Actinoschoenus sp. B (G.J. Keighery 2649)

Feb. to May, sandstone; N : NK.

Actinoschoenus sp. C (P.Wilson sn 12/5/72)

May to July, N: NK.

Actinoschoenus sp.D (K.F. Kenneally 5309)

May to Aug., N: NK.

Actinoschoenus sp.E (C.R. Dunlop 5309)

Feb. to May, N: NK.

BAUMEA

Robust rhizomatous perennial herbs, brown inflorescences

B. acuta (Labill.) Palla. (Pale twig rush)

To 40 cm tall, clumps to 1 x 1 m, flowers Sept. to Nov., swamps; SW : GS, SWA, JF, WAR, ESP.

B. australis = *Gahnia australis*

B. arthropphylla (Nees.) Boeck.

To 1 m, Sept. to Nov., swamps; SW: GS, SWA, JF, WAR, ESP.

B. articulata (R.Br.) S.T. Blake

Robust perennial to 2.5 m, pendulous inflorescences, 10-2, seasonal swamps; ER: GSD, PIL; SW: GS, WA, SWA, JF, WAR, MAL, ESP.

B. juncea (R.Br.) Palla.

Small to 50 cm, forming large colonies, Nov. to March; swamps, rarely brackish; SW: GS, AW, SWA, JF, WAR, ESP.

B. laxa (Nees.) Boeck. = *B. preissii* ssp. *laxa*

B. preissii (Nees.) F. Muell. ex Benth. ssp. *preissii*

To 40 cm -2 m, colonial, Sept. to Jan.; swamps; SW: SWA, JF, WAR, ESP.

B. preissii ssp. *laxa* (Nees) K.L. Wilson

To 40 cm -2 m, colonial, Sept. to Jan.; swamps; SW: SWA, JF, WAR, ESP.

B. riparia (Nees.) Boeck.

Robust sedge to 1.5 m, colonial, Aug. to Oct.; seasonal swamps, often brackish; SW : AW, JF, WAR.

B. rubiginosa (Spreng.) Boeck.

Robust colonial sedge to 4 m, 2 m across, Aug. to Nov.; streams; swamps; SW: AW, SWA, JF, WAR.

B. vaginalis (Benth.) S.T. Blake

Clumps to 1.5 m x 1.5 m tall, Oct. to Dec.; ?permanent rivers, streams (may be brackish); SW: SWA, JF, WAR.

BULBOSCHOENUS

B. caldwellii (V. Cook) Sojak

Tuberous rhizomatous herb, to 70 cm, fls. brown, Sept. to March, swamps, drains, mud, brackish river edges; SW : GS, AW, JF, SWA, WAR, ESP.

B. medianus (V.J. Cook) Sojak

Rhizomatous Perennial sedge, fls ?, mud, riverine, SW: SWA

BULBOSTYLIS

B. barbata (Rottb.) C.B. Clarke

Tufted annual herb, to 10 cm, fls. brown, Fls after rain from Feb. to Oct. depending on location, loam, sandstone, alluvium, granite, red sand; N: NK, CK, OVP, VB, DL; ER: GSD, PIL, LSD, GAS, CAR, GD, GVD, MUR, YAL; SW: COO, GS.

B. burbridgeae K.L. Wilson

Slender annual herb (erect or decumbent), to 10†cm, fls. brown, Fls. March to Aug., granitic soil; ER: GSD, PIL.

B. turbinata S.T. Blake

Erect or spreading annual herb, to 15 cm, fls. brown, Feb. to April, red loam, clay, watercourses; ER: PIL, MUR, LSD, CR.

CAREX

Rhizomatous perennial herbs, inflorescences brown, often grass like. Flowers green aging brown.

C. appressa R.Br.

Culms to 2 m tall, Fls. Sept. to Nov.; peaty swamps, creeks; SW: SWA, JF, WAR.

**C. divisa* Huds.

Forms large colonies, culms to 70 cm, 9-12; swamps and estuarine areas, often brackish; SW: SWA

C. fascicularis Boott

Culms to 1 m, fls. Sept. to Nov.; watercourses and swamps; SW: SWA, JF, WAR.

C. inversa R.Br.

Tufted grass like sedge, clumps to 1 m across, 50 cm tall, fls. Sept. to Oct., seasonal swamps (sand, clay); SW: AW, SWA, JF, WAR, MAL, ESP.

C. paniculata = *C. appressa*

C. preissii Nees.

Colonial grass like sedge, to 30 cm tall, Fls. July to Nov., sand (dunes, grey, black, calcareous); SW: SWA, JF, WAR, ESP.

C. pumila Thunb.

Culms to 30 cm, from a creeping deeply buried rhizome, fls. Nov to Feb., sand dunes; SW: SWA.

C. tereticaulis F. Muell.

Tufted, culms 30 to 70 cm, fls. Sept. to Oct., Swamps; SW : SWA, JF.

Carphagracilipes now *Mesomelaena gracilipes*

CAUSTIS

C. dioica R.Br.

Rhizomatous perennial herb, tangled culms to 1†m, clumps to 50 cm, fls. brown, dioecious, fls. Sept. to Dec.; sand (red, yellow, grey, white, lateritic), sandy clay; ER: MUR, GVD, SW: GS, AW, COO, SWA, JF, MAL, ESP.

C. gigas Dixon et Meney ms

Robust sedge to 2m tall, Fls. April to May, lateritic sand, SW; GS

C. aff. pentandra R. Br. (G.J. Keighery 2317)

Tufted tall slender herb, culms to 2m, 10-11, peaty sand over sandstone; SW: ESP.

C. sp. Boyanup (G.S. McCutcheon 1706)

Tufted rhizomatous sedge 60 cm to 1.5 m tall by 1m wide, fls. , sand, SW: JF.

CHORIZANDRA

C. cymbaria R.Br.

Dense tufted sedge, culms to 1 m, fls. purple, fls. Oct. to Nov., peaty sandy swamps; SW: SWA, JF, WAR.

C. enodis Nees.

Rhizomatous sedge, forming loose clumps, 1†m x 1†m, fls. purple-black, July to Nov.; winter wet swamps, claypans, seepages; SW: GS, AW, SWA, JF, WAR, MAL, ESP.

C. multiarticulata Nees.

Rhizomatous sedge, green culms to 30 cm, fls. purple-brown, fls. Aug. to Sept., sandy clay-swamps, granite; SW: AW, JF, ESP..

CHRYSITRIX

C. distigmata C.B. Clarke

Robust rhizomatous herb, to 60 cm x 60 cm, fls. brown, fls. June to Oct., sand(lateritic, yellow, red); ER: YAL, GVD, MUR; SW : GS, AW, COO.

CLADIUM Most species transferred to *Baumea*

C. drummondii C.B. Clarke

Synonymous with *C. preissii* (*Baumea preissii*)

C. elynanthoides = *Gahnia australis*

C. procerum S.T. Blake

Large sedge, dense tussocks, to 2 m tall, fls. Nov., perennial pools; ER: PIL.

CROSSLANDIA

C. setifolia W.V. Fitzg.

Annual grass like sedge, to 30 cm, fls. Feb. to Aug., sandy areas, sandstone; N: NK, CK, VB, DL.

CYATHOCHAETA

C. avenacea (R.Br.) Benth.

Rhizomatous sedge, 1 m across x 40 cm tall, fls. brown, 11-3, sandy clay, peaty swamps, lateritic loam; SW: GS, AW, SWA, JF, WAR, ESP.

C. australis = *C. avenacea*

C. clandestina (R.Br.) Benth.

Rhizomatous sedge, 1.5 m x 1.7 m, fls. ?brown, 10-12, sandy swamps, streams; SW : SWA, JF, WAR, ESP.

C. equitans K.L. Wilson

Robust tufted sedge to 2m tall by 1 m wide, fls golden brown, Dec. to Jan., swamps, SW: GS, SWA, JF, WAR, ESP.

C. stipoides K.L. Wilson

Slender tufted sedge 40 cm to 1 m tall, fls. Red-brown, Oct. to Jan; SW: SWA, JF, WAR.

C. teretifolia W. Fitz.

Robust tufted sedge to 2m tall by 1 m wide, fls golden brown, Dec. to Jan., swamps, SW: SWA, JF, WAR.

CYPERUS

Rhizomatous tufted perennials. usually 20-50 cm tall. Inflorescence bracts normally green-brown.

C. albomarginatus Nees. = *C. macrostachyos*

C. alopecuroides Rottb.

To 1.5 m tall, May to July, swamps; N: VB.

C. alterniflorus R.Br.

Tufted perennial, to 20 cm, fls. green, Flowering spring to summer, swamps; ER: CAR, MUR, YAL; SW: AW, JF, SWA.

C. aquatilis R.Br.

April to August, swamps (sandy, muddy), creeks; N: NK, CK, VB.

C. astartodes K.L. Wilson

Fls golden, Feb. to April, wet places over sandstone, N: NK, CK.

C. betchei (Kuek.) S.T. Blake ssp. *commiscens* K.L. Wilson

April to July, seasonally wet sites; N: CK; ER: TAN, PIL, LSD, MUR.

C. bifax C.B. Clarke

Perennial, colonial tuberous sedge, to 1 m, fls. green, Jan. to Aug., black clay, stream banks; N: VB, OVP, CK, DL ; ER: GSD, PIL, LSD, MUR, CAR,

C. blakeanus K.L. Wilson

Tufted rhizomatous perennial, often with bulbous base, to 55 cm tall, fls. green-brown, Feb. to July, sandy or loam; N: DL; ER: TAN, GAD, GAS, PIL, LAD, CAR.

C. breviculmis R.Br.

Lax annual, to 15 cm, fls. green, April to August, muddy swamps, N: NK, CK; OVP; ER: MUR.

**C. brevifolius* (Rottb.) Hassk.

Rhizomatous lax perennial, to 30 cm, fls. green, all year, garden weed rarely in highly disturbed wetlands; N: DL. OVP; SW: SWA, JF.

C. bulbosus Vahl.

Rhizomatous perennial, with bulbous rootstock, to 30 cm, fls. brown, Feb. to June, sand (red, white, brown), loam (saline), mud; N: VB, CK, DL; ER: GSD, LSD, TAN, PIL, GD, CR, CAR, MUR.

C. carinatus R.Br.

To 1 m, fls. March to Aug., riverine; N: DL.

C. castaneus Willd. var. *castaneus*

Fls. March to Aug., watercourses; ER: TAN, YAL, CAR.

C. castaneus var. *brevimucronatus* Kukenth.

N: NK, CK, OVP, VB, DL.

C. centralis K.L. Wilson

Fls. March to Aug., Creeks, gorges; ER: PIL, GAS, LSD, CR, GVD, MUR.

**C. compressus* L.

Annual, to 15 cm, fls. green, Dec. to May, loam, wet sites; N: VB, DL.

C. concinnus R.Br.

To 80 cm, fls. brown, May to Oct., swamps; N: OVP; ER: PIL, MUR.

**C. congestus* Vahl.

Rhizomatous perennial, colonial, to 1 m, fls. brown, Jan. to March rarely later, pastures (wet), swamps, drains; SW: AW, SWA, JF, WAR, ESP.

C. conicus (R.Br.) Boeck.

Tufted leafy, to 1 m, fls. brown, Dec. to May, lateritic loam, alluvium; N: NK, CK, VB, OVP, DL.

C. cracens K.L. Wilson

Tufted leafy, to 1m, fls. brown, Dec. to May, Seepage areas on sandstone; N: NK.

C. crispulus K.L. Wilson

Tufted leafy, to 40 cm, fls. brown, Dec. to May, sandstone; N: NK.

C. cristulatus S.T. Blake

Erect annual, to 30 cm, fls. light brown, April to June; N: NK, CK.

C. cunninghamii (C.B. Clarke) C.A. Gardn. ssp. *cunninghamii*

Slender rhizomatous sedge, 80 x 30 cm, fls. yellow-green, April to August, rocky (sandstone, granite, limestone); N: NK, CK, VB, OVP; ER: GSD, PIL, LSD, CR, GAS, CAR; SW: GS.

C. cunninghamii (C.B. Clarke) C.A. Gardn. ssp. *cheradicus* K.L. Wilson

Robust rhizomatous sedge, 80 x 30 cm, fls. yellow-green, April to August, sandy creeklines; N: VB.

C. cunninghamii (C.B. Clarke) C.A. Gardn. ssp. *uniflorus* K.L. Wilson

Perennial rhizomatous sedge, 80 x 30 cm, fls. yellow-green (spikelets 1 flowered), April to August, rocky (sandstone, granite, limestone); N: NK, CK, VB, OVP.

C. cuspidatus Kunth.

Small tufted annual, 5-10 cm, fls. greenish-brown, Feb. to Aug., creeks; N: NK, CK, VB, OVP.

C. dactyloides Benth.

Rhizomatous perennial sedge, culms to 1 m, fls. green-brown, May to July, creek beds, loam; N: NK, CK, OVP, DL; ER: PIL.

C. difformis L.

Perennial sedge, to 70 cm, fls. green-brown, Feb. to Sept., clay loam, river bed-sand; N: NK, CK, VB, OVP, DL; ER: PIL, GSD, CR, CAR.

**C. eragrostis* Lam.

Robust rhizomatous perennial, to 1.4 m, fls. green, All year, irrigated pastures, swamps, drains; SW: AW, SWA, JF, WAR, ESP.

C. flaccidus R.Br.

Annual, to 20 cm., Fls green, Mar. to April; N: OVP.

C. gymnocaulos Steud.

Perennial tufted sedge, to 60 cm, fls. brown, July to Dec., creeks, clay, swamps, brackish rivers; ER: MUR, YAL.; SW: GS, SWA, JF, WAR.

**C. hamulosus* M. Breb.

Annual herb, to 50 cm., fls. green, Apr. to May, mud; ER: PIL, CAR.

C. haspan L. ssp. *juncooides* (Lamk.) Kukenth.

Leafy perennial rhizomatous sedge, to 30 cm, fls. brown, April to Dec., swamps, watercourses; N: NK, CK, OVP, DL; ER: GVD.

C. hesperis K.L. Wilson

Perennial tufted sedge, to 40 cm, fls. brown, July to Dec., creeks, clay, swamps; ER: PIL, LSD.

C. holoschoenus R. Br.

Perennial rhizomatous sedge, to 1 m, fls. brown, April to Aug., pools; N: NK, CK, VB, OVP, DL.

**C. involucratus* Poir.

Perennial tufted sedge, to 2m, fls. green/brown, Dec. to Feb., creeks, clay, swamps, rivers; SW: SWA..

C. iria L.

Tufted annual herb, to 20 cm, fls. green-yellow, Feb to Aug., creeks, clay pan, alluvium, red loam; N: NK, VB, CK; ER: PIL, GSD, LSD, CR, GAS, GD, GVD, CAR, GAS, MUR.

C. ixiocarpus F. Muell.

Robust perennial tufted sedge, pendulous inflorescences, to 1 m, fls. yellow-brown, Feb. to July, sandy creeks; ER: PIL, GSD, LSD, CAR.

C. javanicus Houtt.

Perennial rhizomatous sedge, glaucous, to 1 m, fls. pale brown, Jan. to July, pools, watercourses, N: NK, VB, CK.

C. laevigatus L.

Perennial rhizomatous sedge, colonial, fls. light brown, Dec. to May, seepage areas on beach, brackish riverine foreshore; SW: SWA, JF, WAR, ESP.

C. latzii K.L. Wilson

Small perennial sedge, to 30 cm, fls. green, ? June, swamps; N: NK, CK.

C. macrostachyos Lam.

Perennial rhizomatous sedge, to 1.5 m, fls. green-brown, Feb. to July, creeks, swamps, claypans; N: NK, CK, VB, OVP, DL.

C. microcephalus R. Br. ssp. *microcephalus*

Erect herb, to 90 cm, fls. pale brown, Jan. to July, sandy, N: NK, CK, DL,; ER: PIL.

C. microcephalus R. Br. ssp. *chersophilus* K.L Wilson

Erect herb, to 50 cm, fls. yellow-brown, Jan. To July, sandstone, granite, N: NK, VB, CK, OVP.

C. microcephalus R. Br. ssp. *saxicola* K.L Wilson

Erect herb, to 50 cm, fls. yellow-brown, Jan. To July, rocky outcrops, N: NK, CK.

C. nervulosus (Kuek.) S.T. Blake

Tufted annual herb, to 20 cm, fls. brown, Feb. to July, pool edges, swamps; N: NK, VB, CK, OVP, DL.

C. nutans Vahl ssp. *eleusinoides* (Kunth) T. Koyama

Perennial rhizomatous sedge, , to 1.5 m, fls. green-brown, Feb. to July, creeks, swamps; N: OVP.

C. orgadophilus K.L. Wilson

Perennial rhizomatous sedge, with bulbous base, to 80 cm, fls. green-brown, July, creeks, swamps; N: NK, CK, OVP.

C. oxycarpus S.T. Blake

Perennial rhizomatous sedge, to 90 cm, fls. green-brown, March to May, creeks, swamps; N: VB, CK, DL.

**C. papyrus* L.

Robust rhizomatous herb to 5m tall, fls. green, Jan to March, creeklines; SW: SWA, JF.

**C. polystachyos* Rottb.

Rhizomatous perennial sedge, to 40 cm, fls green-brown, July to Dec., disturbed wetlands, drains; N: NK, VB, CK, OVP; ER: PIL; SW: SWA, JF.

C. portae-tartari K.L. Wilson

Perennial rhizomatous sedge, to 60 cm, fls. green-brown, Feb. to April, creeks, swamps; N: NK, VB, ?PIL.

C. pulchellus R.Br.

Perennial herb, from a "corm", to 20 cm, fls. white, Jan. to May, basalt, clay, swamps, seepages; N: NK, VB, CK, OVP, DL.

C. pygmaeus Rottb.,

Annual tufted herb, to 10 cm, fls. green, April to Aug., claypans, silt, swamps; N: VB, CK, DL; ER: GSD, PIL.

C. ramosii = *C. zollingeri*

C. retzii = *C. bifax*

C. rigidellus (Benth.) J.M. Black

Small tufted annual herb, to 10 cm, fls. brown, Apr. to Nov., Swamps, alluvium, clay pan; ER: PIL, GSD, GAS, MUR, CR, SW :YAL, COO, AW, *GS.
(recorded as a ?weed, nr. Geraldton)

C. rotundus L. "nutgrass"

Grass like perennial sedge from a corm, to 30 cm, fls. brown, April to Aug., wet sandy soils; N: VB, DL; ER: PIL, CAR, MUR; *SW: SWA, JF.

C. scariosus R.Br.

Tuberous perennial sedge, to 30 cm, fls. pale brown, April to Aug., creeks; N: DL.

C. sexflorus R.Br.

Small perennial sedge, with bulbous base, to 15 cm, fls. brown, Jan. to June; N: NK, VB.

C. squarrosus L.

Annual tufted herb, to 25 cm, fls. green-brown, Feb. to Aug., mud, creek, red loam (common nr. water); N: NK, CK, VB, OVP, DL; ER: PIL, GSD, LSD, GAS, MUR, CAR; SW: YAL, COO.

C. sulcinix C.B. Clarke

Annual tufted herb, to 30 cm, fls. green-brown, Feb. to March, sandstone seepage areas; N: NK.

**C. tenellus* L. f.

Annual tufted herb, to 10 cm, fls. green, Aug. to Nov., sand swamps, granite, loam, clay; SW: YAL, GS, AW, SWA, JF, WAR, ESP, COO.

**C. tenuiflorus* Rottb.

Perennial rhizomatous herb, colonial, culms to 50 cm, fls. brown, Oct. to April, swampy sandy sites; SW: AW, SWA, JF.

C. tenuispica Rottb.

Annual grassy sedge, to 40 cm, fls. green, Sept. to Jan., pools, creeks, N: NK, VB, CK, OVP, DL.

C. vaginatus R.Br.

Perennial rhizomatous sedge, to 1.5 m, fls. brown, Feb. to Nov., creeks - pools; N: NK, CK, VB, OVP, DL; ER: PIL, GSD, LSD, CR, GAS, CAR; SW: YAL, GS, AW, JF, SWA.
(intergrades with *C. gymnocaulos*)

C. victoriensis C.B. Clarke

Perennial herb, to 70 cm, fls. brown, April to June, edges streams, waterholes; N: NK; ER: CAR.

C. viscidulus K.L. Wilson

Perennial herb, to 1m, fls. yellow-brown, Feb. to Aug., edges streams, waterholes; N: NK, CK, VB, OVP.

**C. vorsteri* K.L. Wilson

Perennial to 1.5 m, Creeks, SW: SWA, JF.

C. zollingeri Steud.

Annual grass like sedge, to 15 cm, fls. green, April to May, creeks; N: NK, CK, VB.

ELEOCHARIS

Perennial rhizomatous herbs, often forming large colonies, usually emergent aquatics. Inflorescence bracts normally brown, Anthers yellow, stigmas white.

E. acuta R.Br.

To 50 cm, Sept. to Nov., clay pans, peaty sandy swamps; ER: CAR, SW: GS, AW, SWA, JF, MAL, ESP.

E. atropurpurea (Retz.) Kunth

Tufted annual, to 10 cm, fls. dark brown, April to Sept., watercourses, swamps, pools; N: NK, CK, DL; ER: PIL.

E. brassii S.T. Blake

To 1 m, March to July; pools, swamps; N: NK, VB, DL.

E. caespitosissima Baker

Tufted? annual, 15 x 15 cm, fls. March to July, swamps, rivers; N: NK, CK.

E. dulcis (Burman.) Trin. ex Hensch. (Chinese Water Chestnut)

Tuberous perennial to 1m, fls. May to Aug., billabongs; N: NK, VB, DL; ER: PIL.

E. geniculata (L.) R. & S.

Small tufted ? annual, culms to 20 cm, fls. Jan. to Aug., pools, watercourses; N: NK, CK, OVP, DL; ER: PIL, GAS, CAR; SW: GS.

E. keigheryi K.L. Wilson

Fls. green, Aug. to Nov., claypans; SW: SWA, JF, AW.

E. ochrostachys Steud.

Rhizomatous perennial, to 60 cm, Fls. , swamps, N: NK, VB.

E. pallens S.T. Blake

Culms to 50 cm, fls. July to Aug., swamp; ER: GD, MUR, CAR.

E. philippinensis Svenson

Fls green, swamps, N: NK.

E. pusilla R.Br.

Small annual herb, to 15 cm, fls. Aug. to Sept., red loam in creek, granite; ER: MUR; SW: COO, MAL.

E. sphacelata R.Br.

Emergent aquatic, to 1.5 m, fls. Feb. to Oct., freshwater swamps ; N: VB, CK; ER: PIL; SW: SWA, JF, ESP.

E. spiralis (Rottb.) Schultes

To 60 cm, fls. March to May, brackish pools, estuarine; N: NK, VB.

E. sundaica Kern.

To 1 m fls. March to Aug., billabongs, swamps; N: NK.

E. sp. A (W.V. Fitzgerald 1038)

To 1m, fls. April to July, swamps, billabongs; N: NK, CK.

E. sp. B (K.F. Kenneally 8727)

To 80 cm., fls. March to June, Swamps, billabongs; N: NK, VB.

EVANDRA

E. aristata R.Br.

Grassy rhizomatous sedge, clumps 2 m x 1.5 m tall, fls. dark brown, Oct. to Jan., peaty sandy swamps; SW: SWA, JF, WAR.

E. pauciflora R.Br.

Grassy rhizomatous sedge, culms to 1.5 m, fls dark brown, Sept. to Dec., swamps, SW: SWA, JF, WAR.

FIMBRISTYLIS

Tufted annual or perennial herbs, Bracts green or brown

F. acicularis R.Br.

Perennial, to 30 cm, fls., Apr. to July, N: NK, CK, OVP.

F. acuminata Vahl.

Perennial, to 20 cm, fls. May to Aug., damp loam, mud, N: NK, CK.

F. aestivalis (Retz.) Vahl.

Annual to 20 cm., Fls. June, N: NK, CK.

F. ammobia Latz.

Annual herb, to 15 cm, fls March to July; red sand; N: DL; ER: TAN.

F. arthrostylodes W.V. Fitz = *Actinoschoenus* sp. B

F. blakei Latz

Perennial herb, Fls, Oct., Sandstone seepages; N: CK.

F. blepharolepis J.Kern

Annual to 1.3 m, Fls., May to July,; N: NK.

F. caespitosa R.Br.

Perennial herb, to 40 cm, fls. Jan. to July, swamps, Claypans, sandstone seeps, red sand; N: DL, VB, OVP; ER: TAN, GSD.

F. capitata = *F. furva*

F. cardiocarpa F. Muell.

Annual, tufted sedge, 10 x 50 cm, fls. Feb. to June, clay, sandstone, lateritic; N: NK, CK, VB, OVP.

F. cephalophora F. Muell.

Perennial sedge, to 60 cm, fls. dense, brown, March to Aug., Basaltic loam, creeks: N: NK, VB, CK, OVP, DL.

F. cinnamometorum (Valh.) Kunth.

Tufted perennial herb, 80 cm, fls. March to Aug., Damp areas (loam, clay, pools); N: NK, CK, VB, OVP, DL.

F. corynocarpa F. Muell.

Perennial, to 50 cm., fls. Apr to May, N: VB.

F. cymosa R.Br.

Tufted perennial herb, 30 cm, fls. brown, 4-5, alluvium; N: NK, DL.

F. cyperoides R.Br. = *F. cinnamometorum*

F. denudata R.Br.

Perennial herb to 15 cm x 15 cm, fls brown, May to Oct., edges creeks; N: NK, VB, CK.

F. depauperata R.Br.

Annual to 20 cm fls. brown, March to June, seepage areas; N: NK, VB, CK, OVP, DL; ER: PIL, GAS, MUR.

F. dichotoma (L.) Vahl.

Perennial herb, 20-30 cm, fls. brown, Feb. to Aug., red loam, granite, creek bank, saline loam; N: NK, VB, OVP; ER: GSD, PIL, LSD, MUR, GVD.

F. dictyocolea S.T. Blake

Tufted perennial herb, to 50 cm, fls. brown, Feb. to June, swamps: N: NK.

F. elegans S.T. Blake

Tufted annual herb, to 20 cm, fls brown, Apr. to June, creek, N: NK, CK, OVP.

F. eremophila Latz.

Perennial herb, fls. brown, Jan. to Apr., red sand, watercourses, ER: CR, LSD.

F. ferruginea (L.) Vahl.

Tufted perennial herb, 50 - 1.5 m fls. pale brown, May to Nov., mud, loam, silt often saline; N: NK, OVP, DL; ER: GSD.

F. ?furva

Annual herb to 15 cm, fl. Brown, April, swamp, N: OVP.

F. lanceolata C.B. Clarke

Perennial herb, to 80 cm, fls. brown, May, sandy creek, mud; N: NK.

F. laxiglumis Latz

Annual herb, to 60 cm, fls. brown, April., mud, black clay; N: VB.

F. leucocolea Benth.

Annual, to 25 cm, fls. green, Feb. to June, sandstone; N: VB, OVP.

F. littoralis Gaud.

Annual tufted herb, to 50 cm, fls. pale brown, Feb. to Aug., damp areas, clay, basalt, alluvium, sand, swamps; N: NK, VB, OVP, CK, DL; ER: GSD, PIL, GAS.

F. macassarensis Steud.

Tufted ? annual / perennial herb, to 40 cm, fls. brown, Feb. to June, seepage areas, watercourses; N: NK, VB.

F. macrantha Boeck.

Tufted perennial herb, to 70 cm, fls. brown, Jan. to March, laterite, sandstone, N: NK, VB.

F. microcarya F. Muell

Annual tufted herb, to 40 cm, fls. brown, Feb. to July, claypan, red loam, pool-river edges; N: NK, VB, OVP, CK, DL; ER: PIL, LSD, MUR.

F. miliacea (L.) Vahl.

Annual, to 40 cm, fls. brown, June, seepage; N: DL.

F. neilsonii F. Muell.

Erect perennial tufted herb, to 70 cm, fls. brown, Feb. to July, Sandstone, N: OVP, CK, DL; ER: GSD, PIL.

F. nuda Boeck.

Spreading annual, to 10cm, fls. April. to June, April. to June, damp sand, watercourses; N: NK, VB, OVP, DL.

F. nutans (Retz.) Vahl.

Perennial herb, to 70 cm, fls. brown, Feb. to June, sand, mud, N: NK, CK, VB.

F. oligocephala W.V. Fitz. = *F. cephalophora*

F. oxystachya F. Muell.

Annual herb, 15-40 cm, fls. green, Feb. to Oct., sandy swamp, red sand, lateritic loam; N: NK, VB, OVP, DL; ER: TAN, PIL, LSD.

F. pachyptera S.T. Blake

Annual herb, to 25 cm, fls. brown, Feb. to March, lateritic loam ; N: NK.

F. pauciflora R.Br.

Perennial herb, 10-25 cm, fls. brown, Feb. to Nov., creek edges, damp sand; N: NK, VB, CK, OVP, DL.

F. phaeoleuca S.T. Blake

Annual herb, to 10 cm, fls. brown, Feb. to June, mud; N: NK, CK, VB, DL.

F. pilifera W.V. Fitz

Small dense spreading annual herb, to 10 cm, fls. May; N: CK.

F. polytrichoides (Retz.) R.Br.

Tufted ?perennial/annual herb, to 15 cm, fls. brown, July, swamps, saltmarshes; N: VB, OVP.

F. pterygosperma R.Br.

Tufted annual herb, to 30 cm, fls. brown, Feb. to April., seeps on basalt, laterite; N: NK.

F. punctata R.Br.

Annual tufted herb, to 40 cm, fls. brown, March to Aug., damp sand along watercourses, N: NK, VB, CK, OVP, DL.

F. quinquangularis Kunth. = *F. miliacea*

F. rara R.Br.

Annual herb, to 30 cm, fls. green, March to June, swamp, clay, damp sand; N: NK, CK, VB, OVP, DL; ER: PIL.

F. rhyticarya F. Muell.

Perennial tufted herb, to 30 cm, fls. brown, May to Aug., wet sites, N: NK, DL.

F. rupestris Latz.

Annual herb, to 20 cm, fls. green, Feb. to April., seepage areas; N: NK, CK.

F. schultzii Boeck.

Annual herb, to 40 cm, fls. brown, Feb. to June, red sand, calcareous sand, lateritic loam; N: NK, CK, VB, OVP, DL.

F. semilevis F. Muell ex C.B. Clarke = *F. sphaerocephala*

F. sericea R.Br.

Rhizomatous perennial sedge, to 30 cm, fls. brown, July to Dec., beach dunes; N: NK, DL.

F. sieberiana Kunth

Perennial herb, to 50 cm, fls. brown, May to June, sandstone seeps, pool edges; N: CK, OVP, DL; ER: PIL, GSD.

F. signata S.T. Blake

Annual herb, to 35 cm, fls. green, April. to June, damp sand, swamps; N: NK, VB.

F. simplex S.T. Blake

Annual/perennial herb, to 30 cm, fls. brown, June to Aug., swamps; N: NK, CK, DL.

F. simulans Latz

Annual herb, to 25 cm, fls. brown, Feb. to Aug. sandy creek, sandstone, basalt; N: NK, OVP, CK, DL; ER: TAN, PIL.

F. solidifolia F. Muell.

Perennial herb, to 60 cm, fls. brown, March to May, saline sand, clay, creeks, claypans ; N: VB, CK, DL.

F. sphaerocephala Benth

Annual herb, to 15 cm, fls. brown, March to July, sandy creek, mud, lateritic loam ; N: NK, CK, VB, OVP.

F. squarrulosa F. Muell. = *Abilgaardiaschenoides*

F. stellata S.T. Blake = *F. schultzii*

F. subaristata Benth

Annual herb, to 20 cm, fls. brown, Feb. to Aug., seepage areas, watercourses, N: CK.

F. tetragona R.Br.

Annual or perennial, to 30-50 cm, fls. brown, Feb. to Aug., damp sand, edges pools ; N: NK, VB, CK, OVP, DL.

F. trachycarpa F. Muell.

Annual, to 60 cm, Aprl. to June, swamp; N: NK, CK.

F. trigastrocarya F. Muell.

Annual or perennial, to 30 cm, fls. brown, Feb. to June, sandstone, laterite; N: NK, VB.

F. tristachya R.Br.

Perennial herb, to 80 cm, fls. brown, May to June, sandy creek, mud; N: NK, CK.

F. velata R.Br.

Annual herb, to 15 cm, fls. green-brown, Nov. to march, edges creeks, swamps; SW: SWA, JF.

F. xyridis R.Br.

Annual, to 50 cm, fls brown, Feb., gravelly soil; N: NK, CK.

F. sp A (A.S. George 13584)

Annual to 30 cm., fls. brown, Aprl. to July, Watercourses,; N: NK, CK.

F. sp B (K.A. Menkhorst 767)

Perennial, to 80 cm., fls. May to Aug., wetlands; N: CK, OVP.

F. sp. C (T.G. Hartley 14511)

Annual to 30 cm., fls. brown, March to May, Watercourses,; N: NK.

F. sp. D (A.C. Beaglehole 52448)

Perennial, to 20 cm., fls. June., wetlands; N: NK.

F. sp. E (C.R. Dunlop 5403)

Annual, to 30 cm., fls. Feb. to Aprl., basalt, laterite; N: NK.

F. sp. F (A.S. George 13789)

Annual to 60 cm., fls. brown, July to Aug., Watercourses; N: NK.

F. sp. G (A.C. Beaglehole 51810)

Perennial, to 40 cm., fls. Aug., wetlands; N: NK, VB.

F. sp. H (A.C. Beaglehole 47722)

Perennial, to 30 cm., fls. July to Aug., wetlands; N: DL.

F. sp. I (R.J. Hnatiuk 112)

Perennial, to 40 cm., fls. June., wetlands, creeks; N: NK.

F. sp. K (E. Langfield 40)
Perennial, to 80 cm., fls. Jan., wetlands; N: VB.

F. sp. L (K.F. Kenneally 11167)
Annual, to 20 cm., fls. May to Aug., wetlands; N: NK.

F. sp. Shay Gap (K.R. Newbey 10293)
Annual, to 20 cm., fls. June to Aug., wetlands; ER: GSD, PIL.

FUIRENA

F. ciliaris (L.) Roxb.
Annual herb, 10-50 cm, fls. green, Aprl. to Aug., swamp pool edges, creek, clay; N: NK, VB, CK, OVP, DL; ER: PIL.

F. incrassata S.T. Blake
Annual to 30 cm., Fls. Green, May to Aug., Swamps, creeks, brackish lakes; N; DL; ER: PIL.

F. nudiflora S.T. Blake
Annual herb, to 25 cm, fls. brown, Aprl. to July, swamps, creek; N: VB; ER: CR.

F. umbellata Rottb.
Robust perennial herb, 50 cm - 1.5 m, fls. brown, May to Sept., creeks, swamps ; N: NK, CK, OVP, DL.

GAHNIA

Rhizomatous perennials, fls. brown

G. ancistrophylla F. Muell ex Benth
60 cm, July to Oct., granite, sand (calcareous, laterite, white); SW: AW, JF, MAL, ESP, COO.

G. aristata (F. Muell.) Benth
60 cm x 1 m wide, July to Oct., gravelly loam; SW: JF, WAR, ESP, MAL.

G. australis (Nees.) K.L. Wilson
70 cm., loam; SW: GS, JF, AW, MAL.

G. decomposita Benth.
3 m tall x 2 m wide, Sept. to Nov., swamps, streams ; SW: AW, SWA, JF, WAR, ESP.

G. deusta (R.Br.) Benth.
60 x 50cm, Sept. to Nov., sand loam, dunes; ER: HAM; SW: ESP, MAL, COO.

G. drummondii (Steud.) K.L. Wilson
80 cm x 1 m wide, loam, sand, clay; SW: GS, AW, SWA, JF, MAL, ESP.

G. filum = *G. sclerioides*

G. lanigera (R.Br.) Benth.
Clonal tufted rhizomatous perennial, to 20 cm x 2 m, calcareous sand dunes or clay; SW: GS, JF, WAR, MAL, ESP, COO.

G. polyphylla = *G. drummondii*
G. preissii Nees = *G. decomposita*

G. sclerioides K.L. Wilson
Slender rhizomatous herb to 1m x 1m, brown loam; SW: JF, WAR.

G. trifida Labill.

Tussocky robust sedge to 1.5m tall x 1 m, Aug. to Oct., swamps, creeks, clay often brackish; ER: PIL; SW: GS, AW, SWA, JF, WAR, MAL, ESP

G. sp. Headland (G.J. Keighery 8501)

Clonal tufted rhizomatous perennial, to 20 cm x 2 m, calcareous sand dunes; SW : ESP, MAL, COO.

G. sp. L (K.R. Newbey 7888)

Tufted rhizomatous perennial, to 80 cm, sand; SW: JF, MAL, ESP.

GYMNOSCHOENUS

G. anceps (R.Br.) C.B. Clarke

Tufted perennial, to 1m, fls. brown, Oct. to Jan., swampy sand; SW: JF, WAR.

HYMENOCHAETA

H. grossa (L.f.) Nees

Tuberous rhizomatous sedge, to 2 m tall, fls. pale brown, Nov. to Dec., freshwater lagoons; N: NK.

ISOLEPIS

I. australiensis (Maiden et Betche) K.L. Wilson

Annual, to 10 cm, fls. green-brown, June to Sept., silty sand, pools, lake edges; SW: ESP, MAL.

I. cernua (M.Cahl.) Roem. et Schultes,

Perennial or annual, to 10 cm, fls. green, Aug. to Dec., peaty sand, swamp, mud, beach, silt, clay granite ; ER: MUR; SW: AW, JF, MAL, SWA, WAR, ESP, COO.

I. congrua (Vahl.) Ruem. et Schultes

Annual, to 10 cm, fls. green, April. to Nov., granite, black sand, red loam, creeks, clay pan ; ER: GAS, LSD, CAR, CR, GVD, MUR; SW: YAL, GS, AW, SWA, JF, WAR, MAL, ESP.

I. cyperoides R.Br.

Annual, to 10 cm, fls. green-brown, Jan. to Dec., sand (grey, peaty, winter wet, clay), ironstone; SW: GS, SWA, JF, WAR, ESP.

I. fluitans (L.) R.Br.

Annual, aquatic, to 40 cm long, fls. brown emergent, Oct. to Dec., clay pans; SW: SWA, JF, WAR.

I. hookeriana Boeck

Annual, to 15 cm, fls. green, Sept. to Feb., Winter wet areas; SW: AW, SWA, JF.

I. humillima (Benth.) K.L. Wilson

Annual, to 8 cm, fls. green, basal, April to Sept., clay pans, seepages ; N: NK, CK, DL.

**I. hystrix* (Thunb.) Nees

Annual to 10 cm, Fls brown, Oct. to Nov., winter wet clay, SW: SWA, JF, ESP.

I. inundata R.Br.

Perennial rhizomatous, to 45 cm, fls. brown, Oct. to Dec., peaty sand, creeks, lake edges ; SW: SWA, JF, WAR, ESP.

I. marginata (Thunb.) A. Dietr. (Note: This species is generally listed as a weed but it is uncertain if it is a weed or a native or both)

Tufted annual to 20 cm., fls green - brown, July to Dec., sand, loam, clay, granite, swamps; ER: CAR, MUR; SW: GS, SWA, JF, WAR, MAL, ESP, COO.

I. nodosa (Rottb.) R.Br.

Rhizomatous perennial, to 1 m, fls. brown, Aug. to March, sand (beach, gravel, calcareous, granite); ER: MUR; SW: GS, AW, SWA, JF, WAR, ESP.

I. oldfieldiana (S.T. Blake) K.L. Wilson

Compact annual, to 20 cm, fls. green, Aug. to Feb., moist sand, loam or clay; SW: SWA, JF.

I. producta (C.B. Clarke) K.L. Wilson

Aquatic annual, inflorescences erect from water, brown, Nov. to Jan., Fresh water pools; SW: SWA, JF, WAR, ESP.

**I. prolifera* (Rottb.) R.Br.

Stoloniferous perennial, to 30 cm, fls. green, Oct. to March, drains, swamps ; SW: SWA, JF, WAR, ESP.

I. setiformis (S.T. Blake) K.L. Wilson

Annual, to 15 cm, fls. green, Sept. to Feb., winter wet or damp sands or loams, sometimes brackish; ER: CAR; SW: YAL, GS, AW, SWA, JF, WAR, ESP.

I. stellata (C.B. Clarke) K.L. Wilson

Annual, to 7 cm, fls. green, Sept. to Jan., winter wet or damp sands or loams; SW: GS, AW, SWA, JF, WAR, ESP.

Juncellus = *Cyperus*

Kyllingia = *Cyperus*

LEPIDOSPERMA

Perennial rhizomatous herbs, brown flowers.

L. angustatum R.Br.

Culms to 1m, March to April, Swamps, grey, white, granitic or lateritic sands; SW: GS, JF, SWA, WAR, AW, ESP

L. aphyllum R.Br.

Culms spirally twisted to 50 cm, Oct. to Dec., sand; SW: ESP.

L. benthamianum C.B. Clarke

Small tufts to 30 cm, ?May to Oct., granite sand, SW: AW.

L. brunonianum Nees. in Lehm.

Culms to 30 cm, clumps to 2 m across, April to May, loam or sand; SW: GS, AW, SWA, JF, WAR, MAL, ESP, COO.

L. carphoides F. Muell ex Benth.

Culms to 50 cm, March, lateritic sand, creek; SW: GS, SWA, JF, MAL, ESP.

L. costale Nees in Lehm.

Culms 50 cm, clumps 70 cm, 4-6, granite, loam, sand, clay, loam ; ER: MUR; SW: YAL, GS, AW, SWA, JF, MAL, ESP.

L. drummondii Benth.

Culms to 60 cm, (buds Dec., just finished Aug.), sand, lateritic sand; SW: GS, AW, JF, WAR, MAL, ESP, COO.

L. effusum Benth.

Robust culms to 2.5 m, clumps 2 m, March to May (fls. recorded dull grey) edges rivers or creeks, swamps (occasionally tidal); SW: SWA, JF, WAR, ESP.

L. exsul = *Tricostularia neesii*

L. gladiatum Labill.

Robust herb, culms to 1.5 m, clumps to 1.5 m, Nov. to May, dunes, calcareous sand, sand ; SW: GS, SWA, JF, WAR, MAL, ESP.

L. gracile R.Br.

Culms to 30 cm, April to June, sand (white, grey, dunes), limestone, granitic loam, SW: AW, SWA, JF, WAR, MAL, ESP.

L. leptophyllum Benth.

Culms to clumps to 80 cm, May, sandy clay, lateritic loam; SW: AW, JF.

L. leptostachyum Benth.

Culms to 60 cm, clumps to 60 cm, April to June, peaty sand, lateritic sand; SW: GS, AW, SWA, JF, WAR, MAL, ESP.

L. longitudinale Labill.

Clonal rhizomatous herb, culms to 60 cm x 5 m. across, Nov. to May, swamps, clay, swampy sands; SW: Aw, SWA, JF, WAR, ESP.

L. obtusum Kuk.

Small tufted perennial, 25-50 cm, fls. brown, May, sand(Lateritic, black, white), SW: JF, ESP.

L. persecans L.T. Blake

Robust perennial herb, to 2 m, fls. brown, Aug., swamps, SW: WAR, ESP.

L. pruinatum Kukenth.

Culms to 50 cm, fls. brown, March, sand (yellow, red, granitic, gravelly), SW: AW, MAL, ESP.

L. pubisquamatum Steud.

Small tufted perennial, 15-40 cm, fls. brown, May, lateritic sand, sandy clay, loam, SW: GS, SWA, JF, WAR, MAL, ESP.

L. resinatum (Nees.) Benth. var *resinatum*

Resinous perennial herb, culms to 80 cm, clumps to 50 cm, April to Oct., sand (lateritic, sandy clay or loam, yellow); ER: MUR; SW: WAR, MAL, ESP, COO.

L. resinatum (Nees.) Benth. var *pleianthemum* Kuek.

Resinous perennial herb, culms to 50 cm, clumps to 50 cm, April, sandy clay or loam over quartzite; SW: MAL.

L. rostratum S.T. Blake

Perennial herb, to 30 cm, fls. dark brown, March, winter wet peaty sand; SW: SWA.

L. rupestre Benth.

Perennial herb, to 1 m, fls. brown, April, river bed, sandstone; SW: GS.

L. scabrum Nees. in Lehm.

Culms 30 cm - 1 m, open clumps to 90 cm, April to May, sand (white, yellow, grey, laterite, peaty), sandy clay; SW: GS, AW, SWA, JF, WAR.

L. squamatum Labill.

Culms 60 cm - 1 m, ?March to Oct., calcareous, peaty or lateritic sand, dunes, sandy clay; SW: GS, SWA, JF, WAR, WAR, MAL, ESP.

L. striatum R.Br.

Culms to 40 cm, clumps to 80 cm, Jan. to April., lateritic or granitic sand, loam; SW: SWA, JF, WAR, ESP.

L. tenue Benth

Culms to 30 cm, open clumps to 75 cm, Aprl. to Dec.; lateritic sand, sandy clay, sandy loam; SW: GS, AW, JF, WAR, ESP, MAL.

L. tetraquetrum Nees. in Lehm.

Robust perennial herb, culms to 2.5 m, clumps to 1 m, Nov. to March, gullies, swamps, streams; SW: SWA, JF, WAR.

L. tuberculatum Nees. in Lehm.

Culms to 70 cm, clumps 50-70 cm, March to Aprl., sand, lateritic sand, granite; SW: AW, SWA, JF, MAL, ESP.

L. ustulatum Steud.

Culms to 80 cm, Fls. brown, Dec., sand; SW: JF, ESP.

L. viscidum R.Br. (apparently a NSW species all WA material is?l.sp. Island Flat)

Culms to 60 cm, Fls. brown, April to June, lateritic sand, sandy loam, sand dunes; SW: JF, WAR, ESP, MAL, COO.

L. sp. A Island Flat (G.J. Keighery 7000)

Culms to 90 cm, clumps 50-70 cm, March to Aprl., sand, sandy loam, granite; ER: MUR, GVD, HAM; SW: GS, AW, JF, MAL, ESP, COO.

L. sp. Boorabbin (K.L. Wilson 2579)

Culms to 90 cm, clumps 50-80 cm, March to Aprl., sand, lateritic sand, granite; SW: GS, JF, MAL, ESP, COO.

L. sp. P1 small head (M.D. Tindale 166A)

Culms to 40 cm, clumps 30 cm, Aprl., sand, lateritic sand; SW: GS, JF, ESP, MAL.

L. sp. U1 big heads (A.S. George 11294)

Culms to 70 cm, March to Aprl., quartzite, sandstone; SW: ESP.

L. sp Z dark sheath (P.G. Wilson 10177)

Culms to 60 cm, clumps 50 cm, March to Aprl., lateritic sand; SW: ESP.

LIPOCARPHA

L. microcephala (R. Br. Kunth.)

Grass like annual herb, to 30 cm, fls. green, March to Aug., creeks, mud, rockhole ; N : NK, VB, CK, OVP, DL; ER: GSD, PIL, LSD, GAS, CR, CAR, MUR.

MESOMELAENA

Inflorescence bracts brown/black

M. graciliceps (C.B. Clarke) K.L. Wilson

Slender perennial herb, to 50 cm, June to Sept., swampy sandy clay; SW : AW, SWA, JF, WAR, ESP.

M. preissii Nees.

Clumped perennial herb, 40 cm, tall x 30 cm, across, July to Nov., sand, sandy clay, lateritic sand; SW : GS, AW, SWA, JF, WAR, MAL, ESP, COO.

M. pseudostygia (Kukenth.) K.L. Wilson

Tufted perennial herb, 50 x 50, Aprl. To June, sandy soils; SW : YAL, GS, AW, SWA, JF.

M. stygia (R.Br.) Nees. ssp. *stygia*

Tufted perennial herb, to 50 cm x 50 cm, March to June, yellow, grey, granitic or lateritic sand, lateritic clay; SW : AW, SWA, JF, WAR, ESP, MAL.

M. stygia ssp. *deflexa* (Kukenth.) K.L. Wilson
Tufted perennial herb, ? Oct., white sand over clay, SW : GS

M. tetragona (R.Br.) Benth.
Tufted perennial herb, culms to 60 cm, clumps 50cm, March to May, peaty or lateritic sand, sand, loam, sandy clay; ER: CAR; SW : GS, AW, SWA, JF, WAR, ESP.

M. uncinata = *M. stygia*

PYCERUS = CYPERUS

P. albomarginatus Nees = *Cyperus macrostachyos*

REEDIA

R. spathacea F. Muell.

Robust perennial herb, culms to 4 m, clumps 2 m, fls. brown, Nov. to Jan., swamps, edges rivers; SW: JF, WAR.

RHYNCHOSPORA

R. affinis W.V. Fitz.

Annual tufted grass like sedge, to 30 cm, fls. yellow-green, May to July, laterite, creeks; N: NK, VB, CK, OVP, DL.

R. exserta C.B. Clarke

Annual tufted grass like sedge, to 30 cm, fls. yellow-green, Feb. to June, laterite loam, seepage areas, creeks; N : NK, VB, CK.

R. heterochaeta S.T. Blake

Annual tufted grass like sedge, to 60 cm, fls. yellow-green, ?May, basalt; N : NK.

R. pterochaeta F. Muell.

Slender annual herb, to 80 cm, Feb. to March, laterite, N : NK, VB.

R. rubra (Lour.) Makino

Slender annual herb, to 50 cm, Feb. to March, creeks, N : NK.

R. subtenuifolia Kuek.

Slender annual herb, to 40 cm, March to April, laterite, N : VB.

R. sp. A (C.R. Dunlop 5329)

Annual tufted grass like sedge, to 30 cm, fls. yellow-green, Feb. to Apr., laterite, creeks, basalt, seeps; N : NK.

R. sp B (A.S. Weston 12363)

Annual tufted grass like sedge, to 40 cm, fls. yellow-green, Apr. To May, black sand, claypans; N : NK: OVP.

SCHOENOPLECTUS

S. articulatus (L.) Palla = *S. praelongatus*

S. dissachanthus (S.T. Blake) J. Raynal

Annual, to 50 cm, fls. green/brown, Jan. to June, riverine, clay, mud; N: VB, DL; ER: PIL, GD, LSD, GAS, CAR, GVD, MUR.

S. laevis (S.T. Blake) J. Raynal

Annual, to 40 cm, fls. green, Feb. to May, riverine, swamps; N : NK, VB, CK, DL; ER: PIL, GAS, CAR.

S. lateriflorus (Gmel.) Lye

?Annual, to 40 cm, fls. brown, May to Aug., billabongs, claypans, creeks; N : NK, VB, CK, OVP, DL; ER: PIL, GAS, CAR.

S. litoralis (Schrad.) Palla var *litoralis*

Emergent perennial aquatic, to 2 m, fls. brown, June to Sept., pools; N : DL; ER : PIL, CAR, GAS,; SW; GS.

S. litoralis var *subulatus* (Vahl.) Choiv.

ER : PIL

S. mucronatus (L.) Palla ssp *robusta* (Miq) Koyana

Rhizomatous perennial, to 1 m, fls. brown, Aprl. To Aug., sand creeks, pools ; N : NK, CK, VB, OVP, DL.

S. praelongatus (Poir) Raynal

?Annual or perennial , to 70 cm, fls. green/brown, May to Aug., riverine, clay, mud; N: NK, VB, DL..

S. pungens (Vahl.) Palla

Robust rhizomatous perennial, clonal, to 1 m, fls. brown, Feb. to march, emergent in fresh or brackish water; SW : SWA., WAR.

S. subulatus (Vahl) Lye

?Annual or perennial , to 2.8 m, fls. green/brown, Jan. to June, riverine, clay, mud; N: CK, OVP, DL; ER: PIL, GSD, GAS, CAR; SW: GS..

S. validus (Cahl.) A. Love et D. Love

Robust rhizomatous perennial, clonal, to 1 m, fls. brown, Oct. to Feb., emergent in fresh or brackish water; SW : JF, SWA, WAR.

SCHOENUS

S. acuminatus R.Br.

Perennial herb, to 30 cm, fls. brown, Nov., lateritic sand, swamps, SW: JF, WAR, ESP.

S. andrewsii W.V. Fitz.

Tufted perennial herb, to 20 cm, fls. brown, Dec. to Feb., winter wet depressions, sand (grey, black, lateritic); SW: GS, AW, SWA, JF.

S. armeria Boeck.

Tufted perennial sedge, clumps to 20 cm x 30 cm tall, Sept. to Nov., sandy clay, lateritic sand, SW: GS, AW, JF, MAL, ESP.

S. asperocarpus F. Muell (Poison Sedge)

Tufted perennial sedge, to 30 cm, fls. brown, June to Jan., swampy sand, sand; ER: CAR; SW: JF, SWA, WAR.

S. axillaris = *S. maschalinus*

S. badius Rye

Slender annual to 15 cm. tall, fls. green - brown, Sept. to Oct., winter damp sand; SW: GS.

S. barbatus = *S. subbarbatus*

S. benthamii F. Muell.

Perennial herb, 25 cm x 15 cm fls. dark brown, Aug. to Nov., swampy (sand, loam, clay), SW: SWA, JF, WAR, ESP.

S. bifidus (Nees.) Boeck.

Perennial herb, to 30 cm, fls. dark brown - black, Oct. to Nov., lateritic loam, swamps, granitic loam, SW: AW, SWA, JF, WAR.

S. breviculmis Benth.

Densely tufted perennial herb, to 10 cm, fls. green-purple, Aug. to Oct., moss sward, peaty sands; SW: SWA, JF, MAL.

S. brevisetis (R. Br.) Roem. & Schult.

Perennial tufted herb, to 30 cm, fls. brown, (Aug.)-Oct. to Dec.-(April), lateritic sand, peaty sand; SW: GS, AW, SWA, JF, WAR, ESP, MAL, COO.

S. caespititius W.V. Fitzg.

Perennial herb, to 80 cm, fls. brown, Sept. to Dec., sand (lateritic, quartzite, grey, white, brown); ER: HAM; SW: GS, AW, SWA, JF, WAR, MAL, ESP.

S. calcatus K.L. Wilson

Dense cushion forming perennial to 50 cm wide, fls. brown, rarely flowers, March to April., Sand (yellow, gravelly); SW: AW, MAL, ESP.

S. capillifolius D.A. Cooke

Aquatic annual, to 5 cm, fls. green, Oct. to Nov., claypans; SW : SWA

S. calostachyus (R.Br.) Poir = *S. rigens*

S. centralis Latz.

Annual tufted sedge, to 20 cm, fls. brown, July, red sand, creekbeds; ER : CR.

S. clandestinus S.T. Blake

Perennial, forming grass like mats, fls. brown in leaves, March, sand (white, brown, gravelly); SW : GS, AW, SWA, JF.

S. cruentus (Nees.) Benth.

Perennial rhizomatous herb, to 60 cm, fls. black, or dark brown, Sept. to Nov., swamps; SW : SWA, JF, WAR.

S. curvifolius (R.Br.) Benth.

Perennial tufted herb, to 30 cm, fls. black, Sept. to Nov., sand (white, peaty or lateritic); SW : GS, AW, SWA, JF, WAR, MAL, ESP.

S. discifer Tate

Annual herb, to 10 cm, fls. green, Aug. to Nov., winter wet flats; SW : SWA, JF, WAR.

S. drummondii = *Gahnia drummondii*

Schoenus efoliatus F. Muell.

Perennial herb, clumps to 60 cm x 90 cm tall, fls. brown, Sept. to Nov., winter wet sand (peaty, brown, black, grey, clay); SW : GS, SWA, JF, WAR, ESP.

S. elegans S.T. Blake

Annual herb, to 30 cm, fls. pale brown, Aug. to Nov., red loam, granite, sand, winter wet sites; SW : SWA, JF, WAR.

S. falcatus R.Br.

Perennial rhizomatous herb, to 1 m, fls. brown, April. To Oct., Damp areas: loam, sand, limestone; N : NK, CK, DL; ER: GSD, PIL.

S. fascicularis Nees = *S. subfascicularis*

S. flavus = *S. subflavus*

S. fluitans Hook.f.

Aquatic sedge, fls. brown, Dec. to Jan., swamps; SW: WAR.

S. globifer Nees

Rhizomatous herb, clumps to 60 cm, culms to 30 m, fls. brown, Aug. to Dec., red, lateritic, yellow or white sand; ER : MUR, GVD; SW : GS, AW, JF, MAL, ESP, COO.

S. grammatophyllus F. Muell.

Perennial herb, to 30 cm, fls. brown, Sept. to Oct., swampy sand, granite; SW : SWA, JF.

S. grandiflorus (Nees.) F. Muell

Perennial herb, clumps to 20 cm, culms to 70 cm, fls brown, March to June, sand; SW : GS, AW, SWA, JF, WAR, ESP.

S. hexandrus F. Muell. et Tate

Perennial herb, culms to 40 cm, fls. brown, Aug. to Oct., yellow or white sand; ER: GAS, CAR, MUR, GVD; SW: YAL, GS, AW, MAL, ESP.

S. humilis Benth.

Annual herb, to 10 cm, fls. green, Sept. to Oct., red loam, granite, clay, granite, saline flats; ER : GAS, CAR, MUR; SW : YAL, GS, AW, SWA, ESP, COO.

S. indutus (F. Muell.) Benth.

Perennial, to 60 cm, fls. brown, Oct. to Nov., gravelly sand; SW : WAR

S. insolitus K.L. Wilson

Slender perennial wiry sedge to 40 cm tall, fls. brown, Aprl. To Oct., sand (Lateritic, white, grey); SW: GS.

S. jamesonianus W.V. Fitz = *S. bifidus*

S. laevigatus W.V. Fitz

Perennial herb, clumps to 40 cm x 40 cm tall, fls. brown, Oct. to Nov., swampy sands (white, grey, peaty, black, clayey); SW : SWA, JF, WAR, ESP.

S. lanatus Labill.

Perennial herb, loose clumps to 70 cm x 35 cm tall, fls. dark brown, May to Dec., sand (calcareous, white, grey, stony); SW : GS, AW, SWA, JF, WAR, ESP, MAL.

S. latitans S.T. Blake

Low tufted hummock, fls., basal, brown, April to May, sand; SW : GS, SWA

S. loliaceus Kuek.

Annual to 40, fls brown, Aug. to Nov., swamps; SW: JF, WAR.

S. maschalinus Roem. & Schult.

Mat forming sedge to 5 cm x 2-3 m. wide, fls, green – brown, Dec. to Jan., clay flats; SW: SWA, JF, WAR.

S. minutulus F. Muell.

Rhizomatous perennial, to 10mm tall x 30 mm wide, fls. brown, May to Dec., sand, loam; SW : GS, AW, JF, ESP.

S. multiglumis Benth.

Perennial herb, clumps to 130 cm x 130 cm tall, fls. brown, May, peaty sand; SW : JF, WAR.

S. nanus (Nees.) Benth.

Annual herb, to 10 cm, fls. green-brown, Aug. to Nov., clay, laterite, sand; ER: Car, MUR; SW: GS, AW, SWA, JF, MAL, ESP, COO.

S. natans (F. Muell.) Benth.

Aquatic annual, to 30 cm, fls. brown, Sept. to Nov., claypans; SW: SWA, JF.

S. nitens (R.Br.) Poir.

Rhizomatous perennial herb, colonial, to 30 cm, fls. dark brown, Oct. to Feb., silt, edges lakes, estuaries, salt lakes; SW : GS, SWA, JF, WAR, ESP.

S. obtusifolius (Nees.) Boeck.

Tufted perennial herb, to 20 cm, fls. brown, Sept. to Nov., lateritic sand, sand; SW : GS, SWA, JF, WAR, MAL, ESP.

S. odontocarpus F. Muell.

Annual herb, to 15 cm, fls. brown, Aug. to Oct., granite, sand, clay usually winter wet; ER: MUR; SW : AW, SWA, JF, MAL, ESP, COO.

S. pedicellatus (R.Br.) Benth.

Tufted perennial herb, clumps to 20 cm, to 40 cm tall, fls. light brown, July to Nov., sand (lateritic, yellow, white, grey); SW : GS, SWA, JF, WAR.

S. pennisetis S.T. Blake

Annual herb, to 15 cm, fls. purplish, Aug. to Oct., peaty sand; SW : AW, SWA.

S. pleiostemoneus F. Muell.

Perennial herb, to 25 cm, fls. brown, March to Aug., sand (white, yellow, grey); SW : GS, AW, SWA, JF, MAL, ESP.

S. plumosus Rye

Annual to 15 cm, fls green – brown, Sept. to Nov., winter wet depressions: SW: GS, AW, SWA, JF, WAR.

S. punctatus R.Br.

Perennial herb, to 60 cm, fls. brown, Aug., creeks; N : NK, DL.

S. racemosus S.T. Blake

Perennial herb, to 35 cm, fls. brown, March to July, sand, sandy clay; SW : ESP, MAL, COO.

S. rigens S.T. Blake

Perennial herb, dense tussocks, to 20 cm, infl. to 60cm, fls. brown, March to Sept., Winter damp areas; SW : GS, SWA, JF.

S. rodwayanus W.V. Fitz = *S. efoliatus*

S. sculptus (Nees.) Boeck.

Annual herb, to 20 cm, fls. brown, Sept. to Nov., clay, peaty sand, granite; SW : AW, SWA, JF, ESP, MAL.

S. sesquipiculus C.B. Clarke

Rhizomatous perennial, to 20 cm, fls. brown, ? March, sand, sandy clay; SW : AW, JF, MAL, ESP.

S. subaphyllus Kukenth.

Perennial tufted herb, to 30 cm, fls. brown, Feb. to July, sand; ER: GVD, MUR; SW: YAL, GS, JF, MAL, COO.

S. subbarbatus Kukenth.

Perennial herb, to 30 cm, fls. brown, Sept. to Jan., sand, SW : SWA, JF, WAR, MAL, ESP.

S. subbulbosus Benth.

Perennial herb, to 20cm, fls brown, Dec. to Aprl., sand, swamps; SW : GS, SWA, JF, WAR.

S. subfascicularis Kekunth.

Perennial herb, to 60 cm, fls. dark brown, July to Dec., swamps; SW : GS, AW, SWA, JF, MAL, ESP.

S. subflavus Kuek. ssp. *subflavus*

Perennial herb, clumps to 30 cm, culms to 10 cm, fls. brown, May to Oct., sand (grey, yellow, lateritic), sandy clay : SW : GS, AW, SWA, JF, MAL, ESP.

S. subflavus Kuek. ssp. Hispid Culms (K.R. Newbey 8278)

Perennial herb, clumps to 30 cm, culms to 10 cm, fls. brown, May to Oct., sand (grey, yellow, lateritic), sandy clay : SW : MAL, ESP.

S. subflavus Kuek. ssp. Long Leaves (K.L. Wilson 2865)

Perennial herb, clumps to 30 cm, culms to 10 cm, fls. brown, May to Oct., sand (grey, yellow, lateritic), sandy clay : SW : AW, JF, WAR, MAL, ESP.

S. sublateralis (Steud.) C.B. Clarke

Perennial herb, clumps to 30 cm, culms to 10 cm, fls. brown, Aprl. To June, sand (grey, black, winter wet), sandy clay : SW : SWA, JF, WAR.

S. sublaxus Kukenth.

Perennial herb, clumps 30-90 cm, culms to 20 - 60 cm, fls. brown, Oct. to Aprl., peaty sand, quartzite sand, swamp; SW : SWA, JF, WAR, ESP.

S. submicrostachyus Kuk.

Perennial herb, clumps 30 - 90 cm culms 30-50 cm, fls. brown, Sept. to Jan., swamps, clay, silt; SW: SWA, JF, WAR, ESP.

S. tenellus Benth.

Minute annual, to 5 cm, fls. green, Oct. to Dec., swamps; SW: SWA, JF, WAR.

S. trachycarpus F. Muell.

Perennial herb, to 20 cm, fls. dark brown, Sept. to Oct., white sand, silt, swamps; SW : SWA, JF, WAR.

S. unispiculatus F. Muell. ex Benth.

Perennial herb, to 40 cm, fls. brown, 8-10, normally winter damp sites, clay, lateritic sand, sand; SW : GS, AW, SWA, JF, WAR.

S. variicellae Rye

Annual, Infl. Brown, Aug. ñ Nov., Winter wet sites, granite outcrops; ER; MUR, YAL; SW: GS, AW, SWA, JF, WAR.

S. sp A 1 Boorabbin (K.L. Wilson 2581)

Perennial herb, clumps 30 cm, culms to 30 cm, fls. brown, ? Nov., yellow sand; SW : AW, COO, MAL, ESP.

S. sp A2 Kulin (B.G. Briggs 7939)

Perennial herb, to 20 cm, fls. brown, ? Aug., sandy clay, lateritic sand, sand; SW : Aw, MAL, JF.

S. sp. A3 Ciliate Sheaths (K.R. Newbey 9402)

Perennial herb, to 40 cm, fls. brown, ?, sand; SW : GS, JF.

S. sp. Beaufort (G.J. Keighery 6291)

Annual herb to 10 cm, fls green, Oct. to Nov. claypans; SW: JF.

S. sp. Bullsbrook (J.J. Alford 915)

Annual herb to 10 cm, fls green, Oct. to Nov. swamps; SW: SWA.

S. sp. Cape Riche Cushion (G.J. Keighery 9922)

Perennial domed herb, to 10 cm, fls. brown, ? March., grey sandy clay; SW : ESP.

S. sp. G Broad Sheath (K.L. Wilson 2633)

Perennial herb, to 50 cm, fls. brown, Aug. to Oct., sand, sandy clay, lateritic sand; SW : Aw, MAL, JF.

S. sp. Grassy (E. Gude & J. Harvey 250)

Perennial herb, to 70 cm, fls. golden, ?, black silt; SW : JF.

S. sp. Grey Rhizome (K.L. Wilson 2922)

Perennial herb, to 10 cm, fls. brown, ?, sandy clay; SW : JF.

S. sp. Harrismith (G.J. Keighery 6475)

Annual to 10 cm, fls green, Oct. to Nov., winter wet flats; SW: GS, AW.

S. sp. Jindong (R.D. Royce 2485)

Annual to 10 cm, fls green, Oct. to Nov., winter wet flats; SW: SWA, JF..

S. sp. Kalbarri (K.R. Newbey 9352)

Annual to 10 cm, fls green, ?, winter wet flats; ER: GAS, CAR; SW: GS.

S. sp. Mt Barker (G.J. Keighery 9679)

Mat like sedge, to 30 cm. Diam., fls. Brown, ?May, Sandy clay; SW: ESP, JF.

S. sp. Murchison (K.L. Wilson 2647)

Perennial to 30 cm, fls green, Oct. to Nov., winter wet flats; SW: GS.

S. sp. Quairading (G.J. Keighery 15694)

Clumped perennial to 10 cm. By 30 cm. Diam., fls, brown, Oct. to Dec., yellow sand; SW: AW.

S. sp. Stirling (G.J. Keighery 3427)

Lax grassy sedge, to 30 x 30 cm., fls green – brown, Nov. to Jan., seepage areas; SW: ESP.

S. sp. Smooth Culms (K.R. Newbey 7823)

Clumped perennial to 50 cm. By 30 cm. diam., fls, brown, July to Dec., yellow or lateritic sand; SW: GS, AW, SWA, JF, MAL, ESP..

S. sp. Waroona (G.J. Keighery 12235)

Annual to 10 cm, fls green, Oct. to Nov., winter wet flats; SW: SWA..

SCIRPUS

S. americanus Pers. = *Schoenoplectus pungens*

S. antarcticus L. = *Isolepis marginata*

S. articulatus L. = *Schoenoplectus praelongatus*

S. brunonianus S.T. Blake = *Isolepis cyperoides*

S. caldwellii W.J. Cook = *Bulboschoenus caldwellii*

S. cernuus Vahl. = *Isolepis cernua*

S. congruus (Nees.) S.T. Blake = *Isolepis congrua*

S. cyperoides Spreng. = *Isolepis cyperoides*

S. dissachanthus S.T. Blake = *Schoenoplectus dissachanthus*

S. erectus Poir = *Schoenoplectus lateriflorus*

- S. fluitans* L. = *Isolepis fluitans*
S. hamulosus (Bieb.) Steven = *Cyperus hamulosus*
S. hookerianus (Boeck.) S.T. Blake = *Isolepis hookeriana*
S. humillimus Benth. = *Isolepis humillima*
S. inundatus (R.Br.) Spreng. = *Isolepis inundata*
S. laevis S.T. Blake = *Schoenoplectus laevis*
S. lateriflorus Gmel. = *Schoenoplectus lateriflorus*
S. litoralis Schrad = *Schoenoplectus litoralis*
S. maritimus L. = *Bulboschoenus caldwellii*
S. marginatus Thunb. = *Isolepis marginata*
S. mucronatus L. = *Schoenoplectus mucronatus*
S. oldfieldianus S.T. Blake = *Isolepis oldfieldiana*
S. nodosus = *Isolepis nodosa*
S. proliferus Rottb = *Isolepis prolifera*
S. praelongatus Poir = *Schoenoplectus praelongatus*
S. productus = *Isolepis producta*
S. pungens = *Schoenoplectus pungens*
S. setaceus = *Isolepis hookeriana*
S. setiformis = *Isolepis setiformis*
S. squarrosus L. = *Cyperus brevifolius*
S. stellatus = *Isolepis stellata*
S. supinus L. = *Schoenoplectus lateriflorus*
S. validus = *Schoenoplectus validus*

SCLERIA

Tropical rhizomatous annuals or perennial sedges, usually found around swamps, pools or watercourses. Nuts have an aril on several species and are harvested by ants.

S. annularis Steud.

Annual, N: VB.

S. brownii Kenth.

Perennial to 30 cm, fls. pale brown, May to Sept, N: NK, CK, OVP.

S. laxa R.Br.

? Annual grassy herb, to 30 cm, fls. ?, ?, N: NK

S. lingulata C.B. Clarke

Perennial to 2 m, N: NK, OVP.

(A spectacular species deserving of cultivation)

S. novae-hollandiae Boeck.

? Annual, to 50 cm, fls. green, April to May, N: NK, DL.

S. polycarpa Boeck.

Perennial to 1.3 m tall, Fls. May to July, N; NK, VB.

S. psilorrhiza C.B. Clarke

Perennial to 1.5 m, Fls. Jan to March, N; NK.

S. pygmaea R.Br.

Annual herb, to 5 cm, fls. green, April to June, mud, N: NK, CK.

S. rugosa R.Br.

Lax ? annual/perennial herb, 10-30 cm, fls. April to July, N: NK, CK, VB, OVP.

S. sp B. (C.R. Dunlop5409)

Annual, to 30 cm, fl. Feb to March, N; NK.

S. sp. C (K.F. Kenneally 4873)
Annual, to 30 cm, fl. Feb to March, N; NK.

TETRARIA

Perennial rhizomatous tufted herbs.

T. australiensis C.B. Clarke

To 50 cm, clumps 30 cm, fls. Nov-Dec, winter damp flats; SW : SWA

T. capillaris (F. Muel.) Black

To 60 cm, clumps to 1 m, fls. dark brown, April to July, sand, lateritic loam, mud, sandy clay; SW:
GS, AW, JF, SWA, WAR, MAL, ESP, COO.

T. microcarpa S.T. Blake

To 30 cm, fls. dark brown, July to Oct, sands (yellow or lateritic); SW : COO, GS, MAL, SWA.

T. octandra (Nees.) Kukenth.

Clumps to 50 cm, culms to 45 cm, fls. brown, May to Oct., lateritic sand, sand, granite, swamps; SW
: GS, SWA, JF, WAR, ESP.

Tetrariopsis octandra = *Tetaria octandra*

TRICOSTULARIA

T. compressa Nees.

Perennial rhizomatous herb, clumps to 40 cm, culms 20-50 cm, fls. brown, Oct. to Dec., sandy clay,
sand, lateritic sand; SW : GS, JF, SWA, MAL, ESP.

T. neesii Lehm var *neesii*

Perennial rhizomatous herb, clumps to 50 cm, culms to 50 cm, fls. brown, Sept. to Feb., sand,
lateritic sand; SW : GS, JF, SWA, WAR, ESP, MAL.

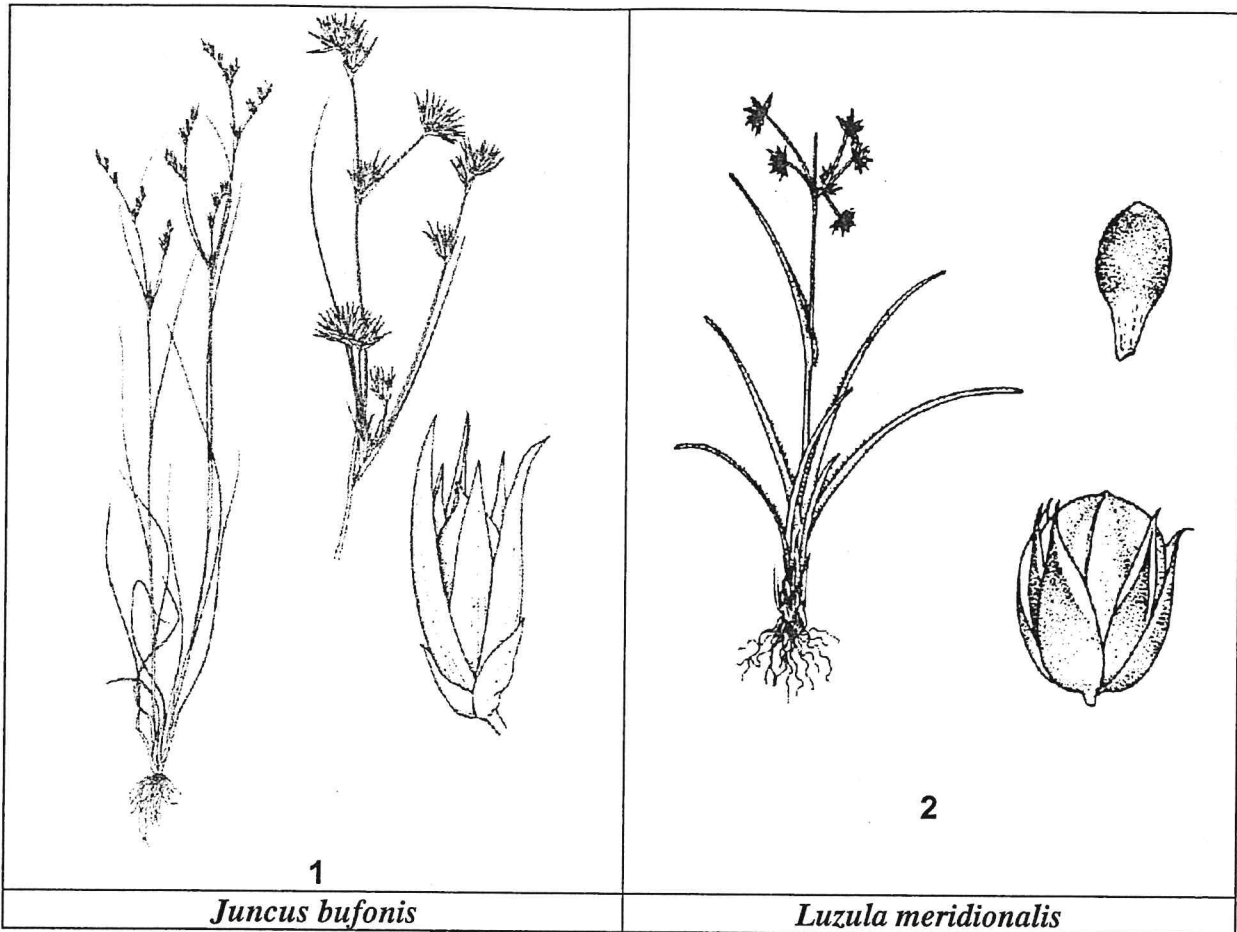
T. neesii var *elatior* Benth.

Taller (to 80 cm) with longer inflorescences; SW : JF, SWA, WAR, ESP.

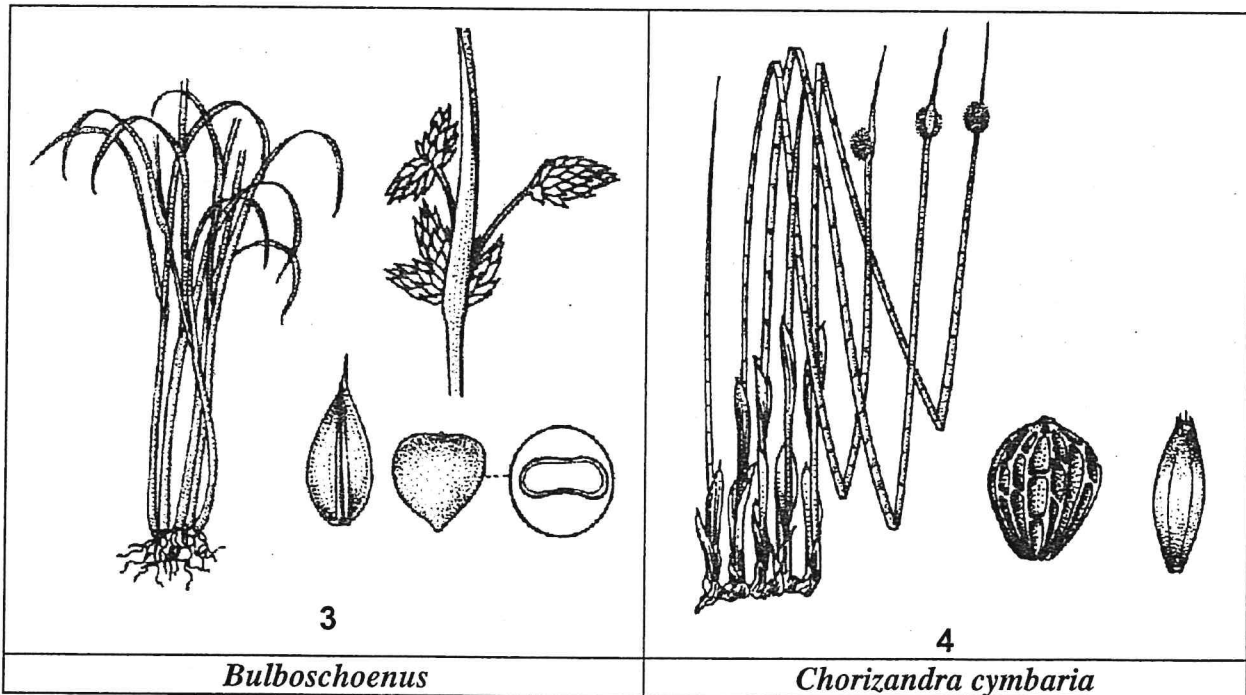
NEW GENUS (AFF SCLERIA) (R.D. Royce 3020)

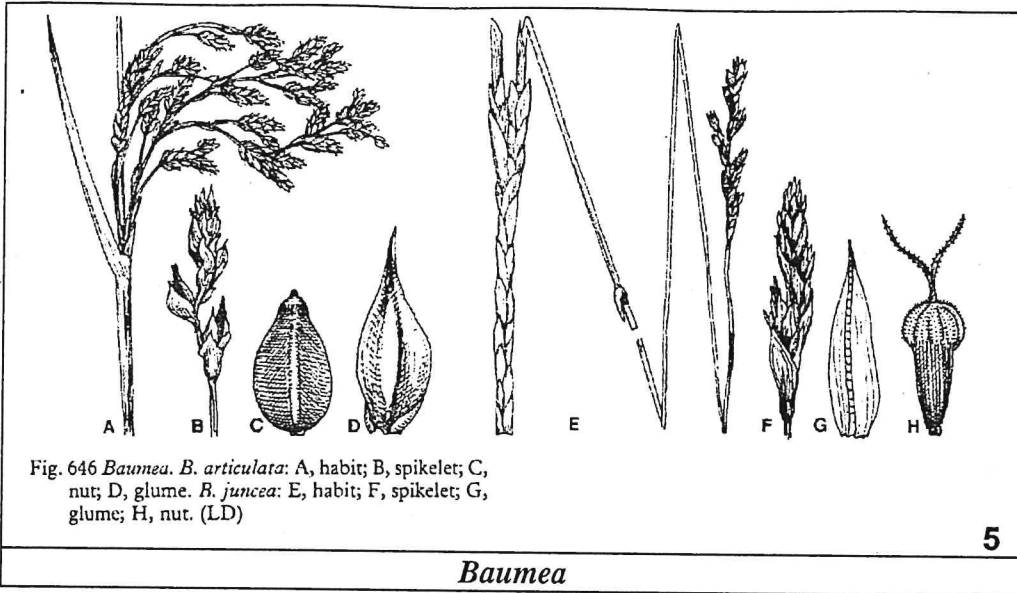
Tufted spreading rhizomatous sedge to 1 m, Fls. brown, Oct. to Dec., Sand over clay; SW: JF, ?WAR.

Juncaceae



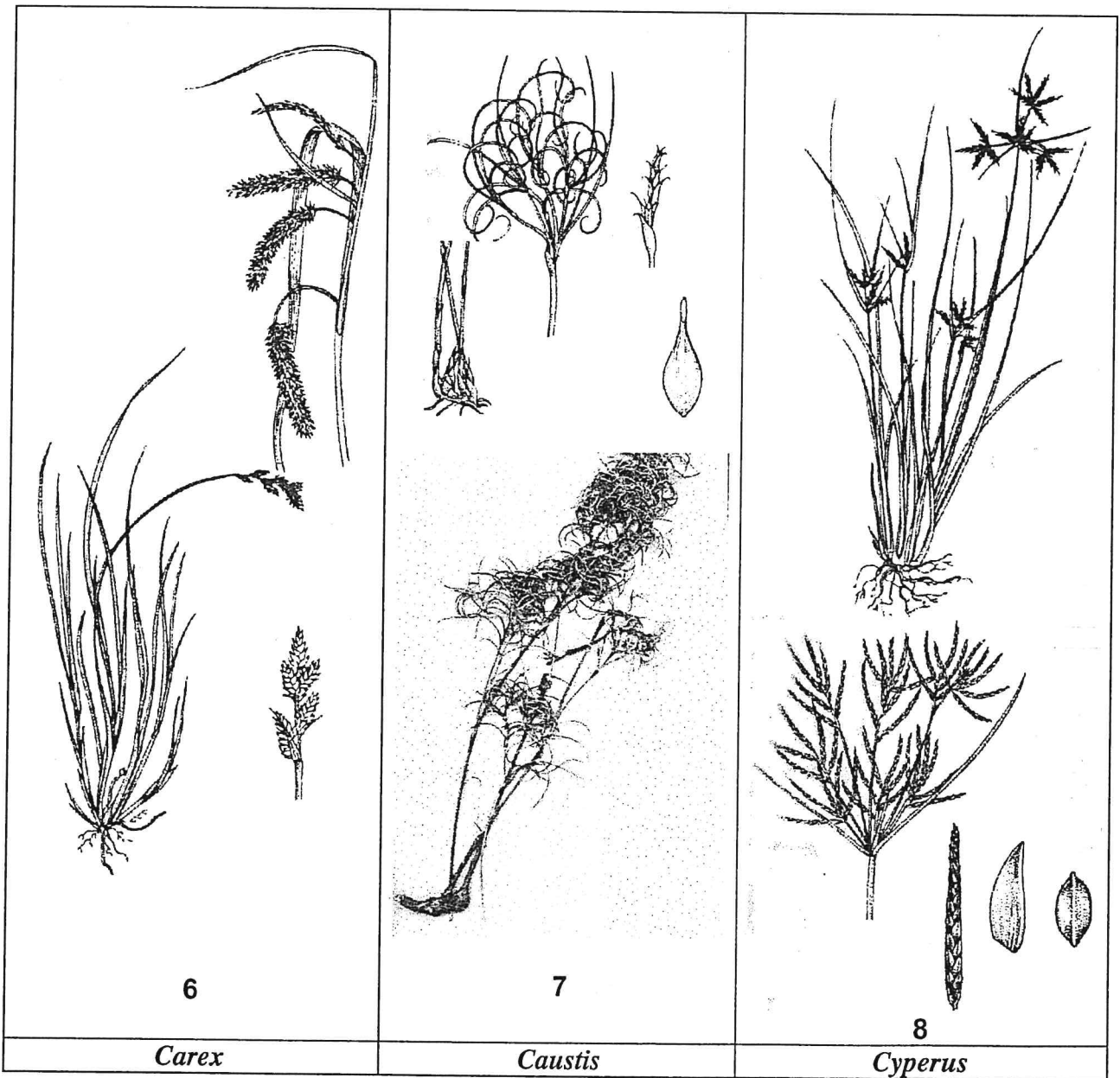
Cyperaceae





5

Baumea



6

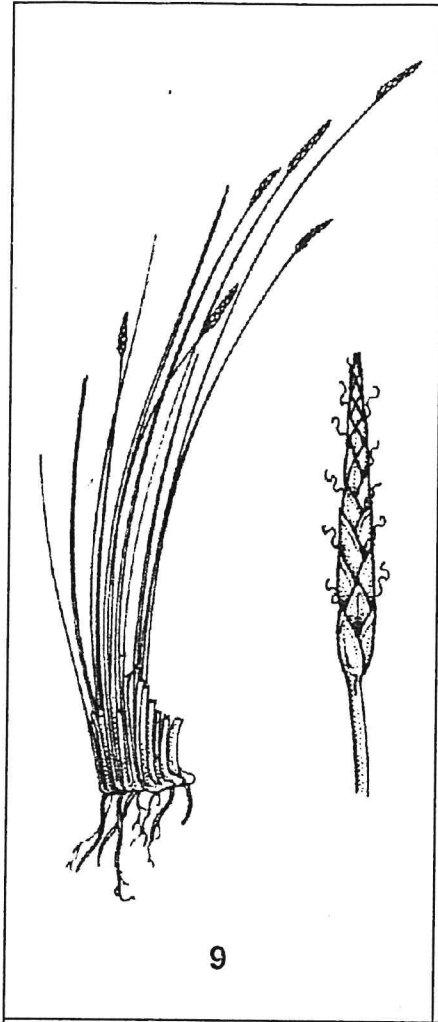
7

8

Carex

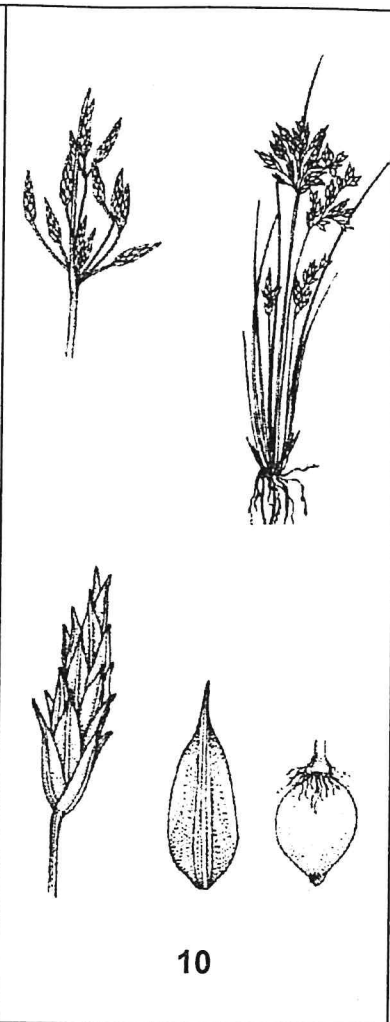
Caustis

Cyperus



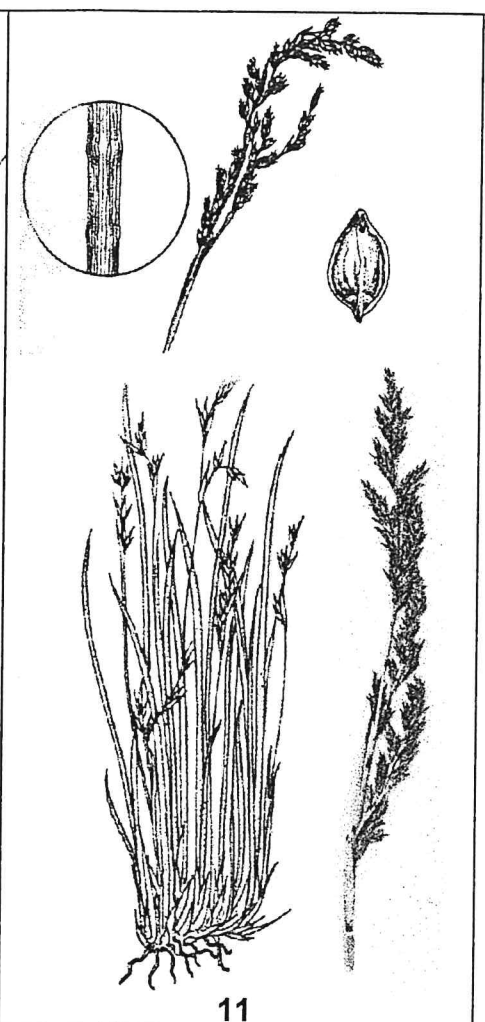
9

Eleocharis



10

Fimbristylis



11

Lepisodperma



Fig. 645 *Gahnia trifida*. A, leaf bases; B, inflorescence; C, glume; D, nut. (LD)

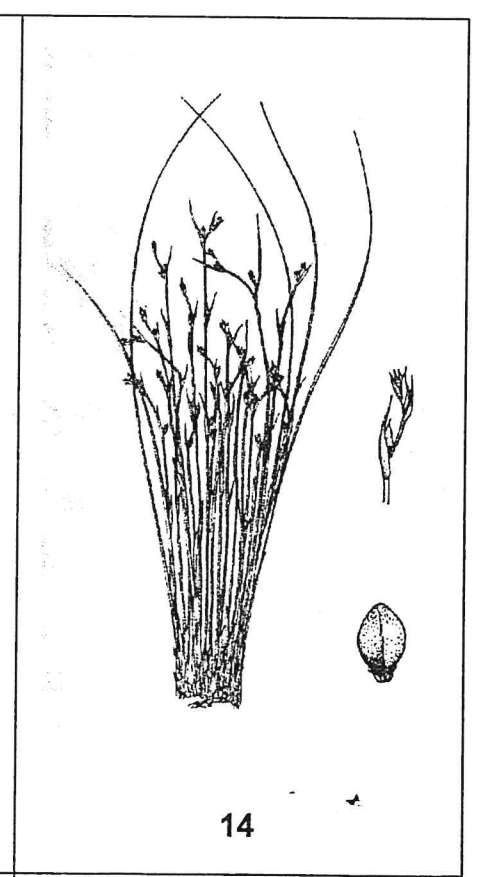
12

Gahnia



13

Schoenoplectus



14

Tricostularia