



THEMEDA AUSTRALIS

Kangaroo Grass

A tufted, leaf perennial. *Culms* up to 1.5 m tall, erect, usually unbranched, smooth, often becoming golden-coloured at maturity. *Nodes* hairless. *Leaves* basal and on the culms. *Leaf sheaths* keeled, coarsely striate, hairless below, but often becoming quite shortly hairy towards the ligule, smooth, the margins translucent. *Ligule* shortly membranous, broad, later splitting into a rim of short hairs with some longer, marginal hairs. *Leaf blades* 15–50 cm long, 2–5 mm wide, green or sometimes bluish, folded with a more or less hairy clasping base, becoming more or less flat along the blade towards the acutely pointed tip, flexuous, smooth or slightly rough down the margins.

Inflorescence a loose, narrow spatheate, usually reddish-coloured panicle, the finely pedicelled racemes (R) slightly nodding; the panicle branches slender and smooth, often quite widely separated along the axis and bearing 1 to several shortly pedicelled spikelet clusters (SC), each at first enclosed by, but later subtended by, a strongly keeled, sheath-like spathe; the spikelet clusters composed of a sessile, fertile awned spikelet surrounded by an involucre of 2 pairs of sessile male or sterile spikelets and 2 pedicellate male or sterile spikelets (in the latter case, they may be variously reduced). *Spikelets* (S_1, S_2, S_3) dissimilar between groups in size, shape and sex, at maturity breaking up individually from below the glumes. *Florets* 2 in the fertile spikelet, the lower sterile and reduced to a lemma, the upper bisexual; floret 1 in the involucre and pedicellate spikelets, male or sterile and reduced to a lemma. *Fertile spikelet* (S_1) sessile and awned, about 8 mm long, including the callus, dark brown when ripe, the axis disarticulating obliquely to form a sharp point, which, with the stiff hairs of the callus, forms a barb. *Glumes* (G_1, G_2) the length of the spikelet, but slightly unequal, tough; the lower glume (G_1) faintly 7–9-nerved, hairless below, becoming densely shortly hairy above the middle, rounded on the tip; the upper (G_2) slightly shorter than G_1 and narrower, 3-nerved, thickened on the inside along the lateral nerves, truncate. *Lemma* (L_1) of the lower sterile floret about $\frac{2}{3}$ the length of the glumes, thinly membranous, nerveless, rounded on the top. *Palea* absent. *Lemma* (L_2) of the upper fertile floret reduced to a narrow, strap-like base to the stout awn, twisted below the knee, densely clothed in short, dark brown hairs. *Palea* absent. *Anthers* 3, 3 mm long. *Involucral spikelets* (S_2) about 9 mm long, narrow and pointed, compressed on the back. *Glumes* (G_1, G_2) dissimilar; the lower glume (G_1) the length of the spikelet, fairly tough, about 11-nerved, the margins keeled, with narrow, membranous flaps enclosing G_2 ; the upper (G_2) shorter, thinly membranous, 3-nerved, slightly keeled on the margins. *Lemma* (L) a little shorter, thinly membranous, faintly 1-nerved. *Palea* absent. *Anthers* 3, 4 mm long. *Pedicellate spikelets* (S_3) on pedicels 2–3 mm long, slightly shorter than, but similar to, the involucre spikelets.

This is perhaps the most widespread grass in Australia. It is most common in the grassy forests and woodlands and is readily eaten by stock, but is inclined to dis-

appear from areas that have been grazed continuously. It is particularly prevalent along railway rights-of-way and fenced roads where grazing has been intermittent or non-existent and burning fairly regular.

REFERENCES

Bailey (1902),¹ p. 1870 (as *Anthistiria* spp.); Gardner (1952),² pp. 342-45; Blake (1969a),³ pp. 81-82; Burbidge and Gray (1970),⁴ p. 70; Lazarides (1970),⁵ pp. 237-42; Willis (1970),⁶ pp. 312-13; Beadle *et al.* (1972),⁷ p. 677; Black (1978),⁸ pp. 248-49; Jessop (1981),⁹ pp. 493-94.

KEY TO SPECIES

1. Involucral spikelets 6-14 mm long, all inserted at same level. Leaves folded in bud. 2
Involucral spikelets 19-28 mm long, inserted as 2 shortly but distinctly separate pairs. Leaves rolled in bud (native oat grass) *T. avenacea*^{1,2,3,5,6,8,9}
2. Perennial. Involucral spikelets 8-14 mm long; fertile spikelet with sharp callus 2.5-3 mm long (kangaroo grass) *T. australis*^{1,2,3,4,5,6,7,8,9}
Annual. Involucral spikelets 6-7 mm long; fertile spikelet with acute but not sharp callus about 1 mm long (grader grass) *T. quadrivalvis*³