

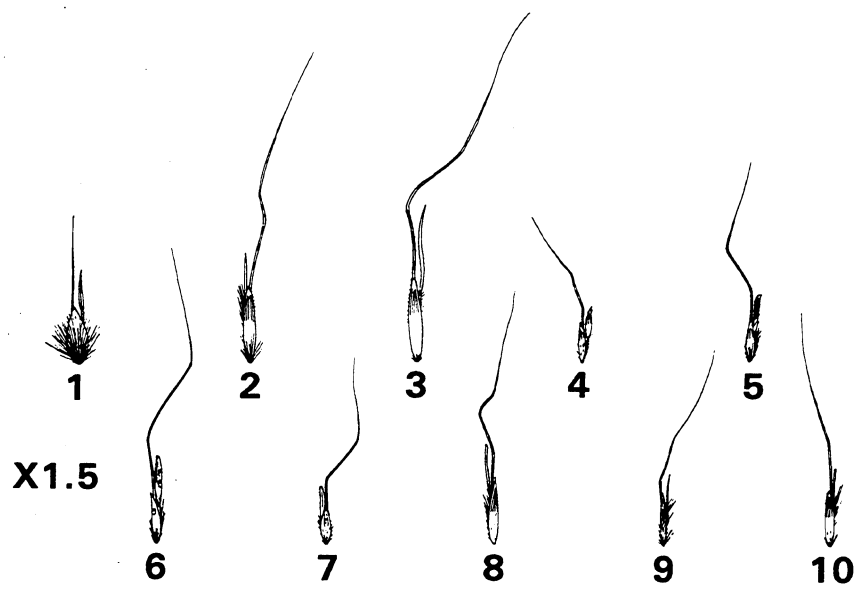
BOTHRIOCHLOA BLADHII

Forest or Burnett River Bluegrass

A strongly tufted, erect perennial, up to 1 m or more tall. *Culms* erect or only slightly kneeed at the base, often sparsely branching at the nodes, particularly after the terminal inflorescence has appeared, the internodes usually longer than the leaf sheaths, smooth, without hairs, straw-coloured at maturity. *Nodes* prominent, lightly bearded with a short ring of hairs. *Leaves* well distributed, pale green to blue-green in colour. *Leaf sheaths* close around the culm in the upper part, becoming loose towards the base, round, hairless and smooth, striate. *Ligule* short, membranous, sometimes with a few long hairs on the margins. *Leaf blades* flat or slightly outwardly rolled, 3–8 mm wide, 10–30 cm long, downwardly rough to the touch along the margins, otherwise smooth.

Inflorescence up to 15 cm long, a more or less open panicle of 5–15 racemes arranged singly to severally together along the axis, the racemes 2–8 cm long on slender stalks 1–1.5 cm long, usually with more than 8 spikelet pairs sessile along the axis, often deep purple in colour. *Spikelets* (S_1 , S_2) in pairs, one sessile, the other pedicellate (the pedicels and axis joints bilaterally hairy with stiff hairs up to 2 mm long), both about the same length, but differing in shape and hairiness, breaking up and falling entire at maturity from the joints and pedicels. *Florets* 2 in the sessile spikelet, the lower floret sterile and reduced to a lemma, the upper floret bisexual; floret 1 in the pedicellate spikelet, which is reduced to a single lemma. *Sessile spikelet* (S_1) fertile and awned, 3–4 mm long, bearded at the base. *Glumes* (G_1 , G_2) dissimilar, membranous; the lower glume (G_1) the length of the spikelet, 5–7-nerved between the 2 keels, which are hairy on the back in the upper half with both short and some long hairs, sometimes with a pit just above the middle; the upper (G_2) slightly shorter, narrower, faintly 3-nerved. *Lemma* (L_1) of the lower sterile floret very thin and membranous, slightly shorter than the glumes, without nerves. *Palea* absent. *Lemma* (L_2) of the upper fertile floret reduced to a narrow, strap-like base to the long (1–1.5 cm), twisted, hygroscopically active awn, which is dark brown and slightly hairy in the lower half. *Palea* absent. *Anthers* 3, 1.5 mm long. *Pedicellate spikelet* (S_2) male or neuter, not awned. *Glumes* (G_1 , G_2) dissimilar, membranous; the lower glume (G_1) 7–11-nerved, 2-keeled, the keels shortly hairy along the back in the upper half, the tip blunt; the upper (G_2) narrower, pointed, faintly 5-nerved. *Lemma* (L) slightly shorter than the glumes, very thin and membranous with 2 slightly hairy marginal flaps on the upper part, without nerves. *Palea* absent. *Anthers*, when present, 3, 1.25 mm long.

This is an important and widespread native forage grass of the grassy forests and woodlands and is often abundant or dominant, particularly on heavy soils. The inflorescence and blue-green foliage are strongly aromatic, but it is readily eaten by stock. It is sometimes difficult to distinguish desert bluegrass (*B. ewartiana*) from this species where the distributions of the two species overlap, as in drier parts of eastern Queensland. Forest or Burnett River bluegrass usually can be distinguished



by its longer, more open inflorescence, the usual lack of close branching at the nodes and the fairly long leaves without distinctive pale margins. An African species, *B. glabra*, occasionally is found naturalized in the southeast. It is closely similar to *B. bladhii*, but has slightly finer racemes and invariably pitted sessile spikelets.

REFERENCES

Bailey (1902),¹ pp. 1862-64 (as *Andropogon* spp.); Blake (1944b),² pp. 24-41; Gardner (1952),³ pp. 325-30; Vickery (1961),⁴ pp. 39-45; Blake (1969a),⁵ pp. 62-65; Burbidge and Gray (1970),⁶ p. 72; Lazarides (1970),⁷ pp. 63-68; Willis (1970),⁸ pp. 210-11; Beadle *et al.* (1972),⁹ pp. 675-76; Bisset (1978a,b),¹⁰ Black (1978),¹¹ pp. 238-40; Jessop (1981),¹² p. 487; Simon (1982).¹³

KEY TO SPECIES

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| 1. Spikelets hidden by silky hairs up to 8 mm long; awn without knee and not twisted (satintop grass) | <i>B. erianthoides</i> (1)* ^{1,2,4,9} |
| Spikelets not hidden by silky hairs; awn kneed and twisted. | 2 |
| 2. Awned lemma distinctly 2-lobed (pull awn out to see). | 3 |
| Awned lemma not 2-lobed. | 4 |
| 3. Hairs on raceme 1.5-5 mm long, plants tufted. | <i>B. biloba</i> (2) ^{2,4} |
| Hairs on raceme less than 1.5 mm long, plants rhizomatous. | <i>B. bunyensis</i> (3) ¹³ |
| 4. Pedicelled spikelet similar in appearance to sessile spikelet, which is 3-5 mm long. | 5 |
| Pedicelled spikelet narrow and strap-like; sessile spikelet 4.75-7 mm long. | 8 |
| 5. Racemes subdigitate, axis less than 4 cm long. | 6 |
| Racemes not subdigitate, axis 4-14 cm long; spikelets rarely pitted (forest bluegrass) | <i>B. bladhii</i> (4) ^{1,2,4,5,7,11,12}
(<i>intermedia</i>) |
| 6. Spikelets rarely pitted. Plants bushy (desert bluegrass) | <i>B. ewartiana</i> (5) ^{2,3,4,7,11,12} |
| Spikelets always pitted. Plants not bushy. | 7 |
| 7. Lower glume of sessile spikelet without hairs on back (creeping bluegrass) | <i>B. insculpta</i> (6) ¹⁰ |
| Lower glume of pedicellate spikelet hairy on lower half on back (Indian bluegrass) | <i>B. pertusa</i> (7) ¹⁰ |
| 8. Anther 1. Lower glume of fertile spikelet almost always with a distinct pit above middle; sessile spikelet 4.75-5.25 mm long. | 9 |
| Anthers 3. Lower glume of fertile spikelet sometimes pitted. Sessile spikelet 5-7 mm long (redleg grass) | <i>B. macra</i> (8) ^{2,4,5,6,8,9,11}
(<i>ambigua</i>) |
| 9. Rather slender plants, 30-100 cm tall. Leaves less than 20 cm long and 4 mm wide. Flowering throughout season, given moisture. Leaves and sheaths often with waxy bloom (pitted bluegrass) | <i>B. decipiens</i> (9) ^{1,2,4,9} |
| Robust plants, 1-2 m tall. Leaves up to 35 mm long and 6 mm wide. Flowering late in season. Leaves and sheaths without waxy bloom (Cloncurry pitted bluegrass) | <i>B. decipiens</i> var.
<i>cloncurrensensis</i> (10) ² |

* Numbers in parentheses refer to spikelet illustrations opposite.