

Grasses of Cape York - Quinkan Country

Aristida hygrometrica R. Br.

Northern Kerosene Grass; Corkscrew Grass

This species is widespread across northern Australia. A tufted annual or short-lived perennial to around 80 cm high, with narrow leaves (Fig. 1a & b). The basic flowering units or spikelets are usually arranged singly or in pairs along the flowering culm and held well above the leaves. Each spikelet contains one floret (modified grass flower) which when fertilised gives rise to one seed (Fig. 2). The florets and subsequently seeds in *Aristida hygrometrica* are characterised by the presence of a long column which separates into three long bristles or awns at the apex. These awns can lie parallel in young florets and become quite divergent in mature seed. Probably useful in dispersal.



Fig. 1a. Habit of *Aristida hygrometrica*



Fig. 1b. Sheet of pressed *A. hygrometrica*

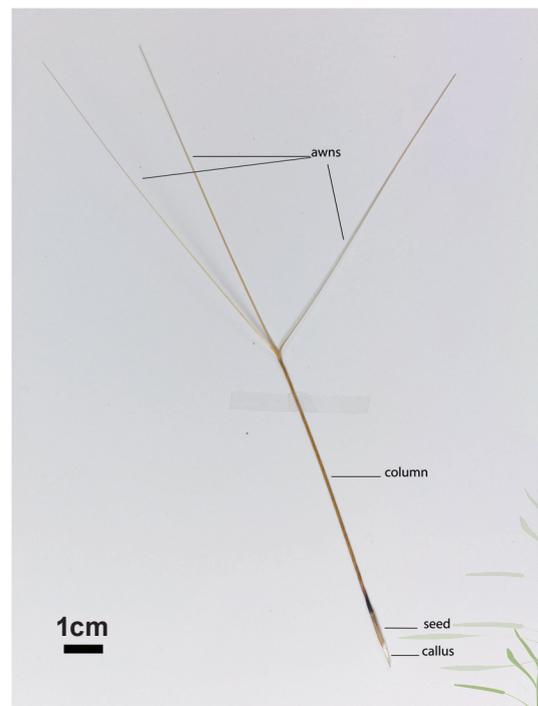


Fig. 2. Seed with column and spreading awns

> BOTANICAL DESCRIPTION

Culms terete; internodes glabrous. Leaf blade conduplicate (folded together along longitudinal axis) or involute (with leaf margins curled inwards), along longitudinal axis curled or flexuous (bent in a loose zig zag form), to 27 cm long and 1.2 mm wide, with bristly hairs. Inflorescence a panicle, more or less open, 14.4-35 cm long, 7-15 cm wide. Spikelets solitary or occasionally paired (with one short and one long stalked spikelet), 1 flowered. Glumes normal (with upper glume longer than the lower) (Fig. 3) notched, glabrous and smooth; lower glume 13.5-23.1 mm long, obtuse, 3-nerved, upper glume 25-42.6 mm long, aristulate or awned, 1-nerved. Lemma 8-16 mm long, with a distinct articulation (seen as a sharp line) with the column (Fig. 4). Column large, 53-85 mm long, 1 mm thick, rough to touch, often twisted in the seed. Awns originating from end of column more or less equal in length, 81-150 mm long, straight, often appressed when in flower and becoming divergent as mature seed. Callus (hardened base of seed or floret) 4-6 mm long, sharp and easily embedded in clothing or wool.

> DIAGNOSTIC FEATURES

Aristida hygrometrica is readily identified by the very long awns, 80 to 150 mm long, and the very long and thick column 53-85 mm long and 1 mm thick (Fig. 2). This species is quite distinct and is unlikely to be confused with other grass species. *Aristida holathera* and *Aristida contorta* are superficially similar as they also possess three large awns and a column, but *A. hygrometrica* can be readily identified from them by the much larger dimensions of the spikelet, especially the length and thickness of the column. In *A. holathera* and *A. contorta* the column is usually less than 50 mm long, occasionally longer (to 65 mm) but then thinner (to 0.3 mm thick).

> NATURAL VALUES

Considered an increaser species, encouraged by burning and overgrazing (Rolfe *et al.* 1997; Lazarides 2002; Milson 2000). The sharp callus at the end of the seed likely to be problematic to stock, especially sheep (Lazarides 2002; Milson 2000).

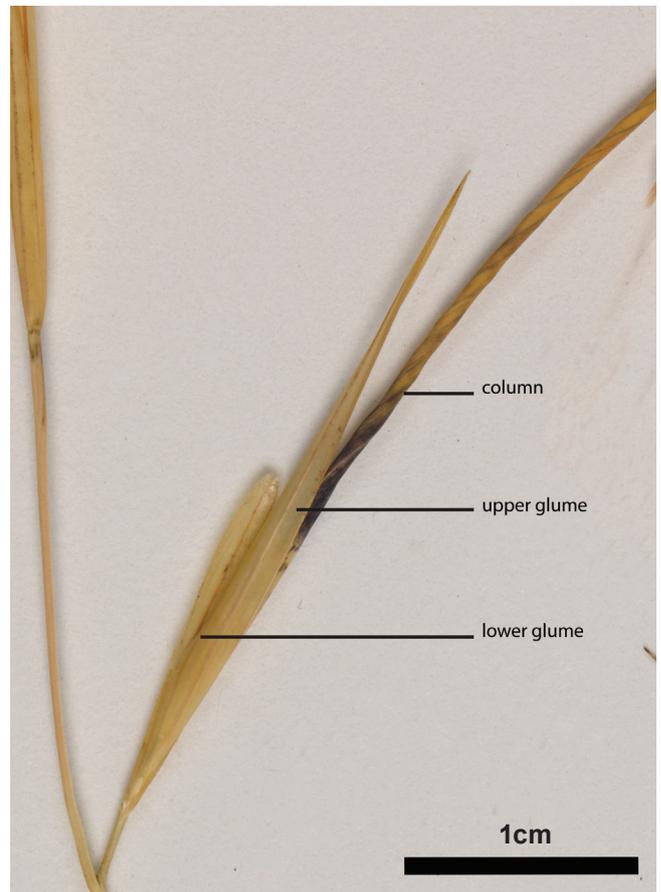


Fig. 3. Glumes of spikelet

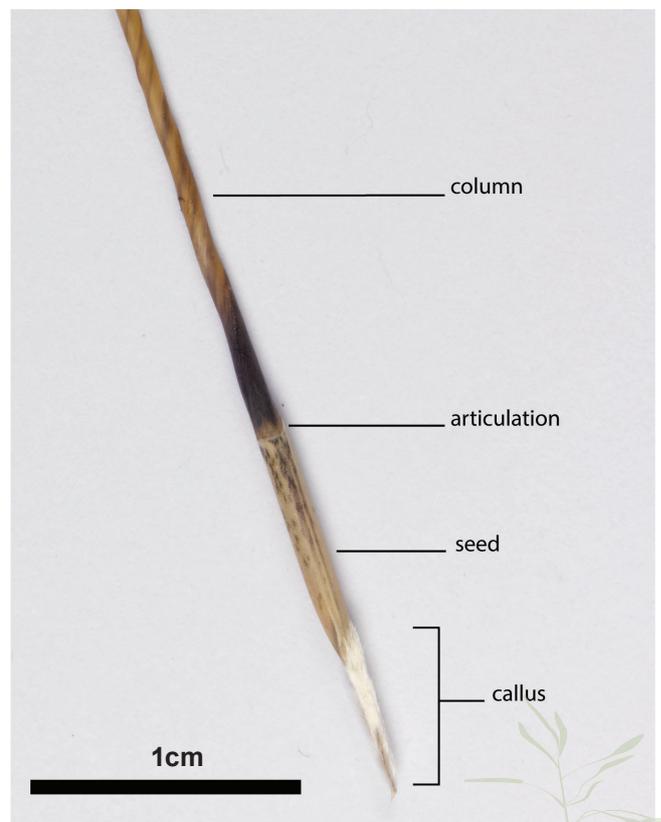


Fig. 4. Seed showing articulation and spiralling column

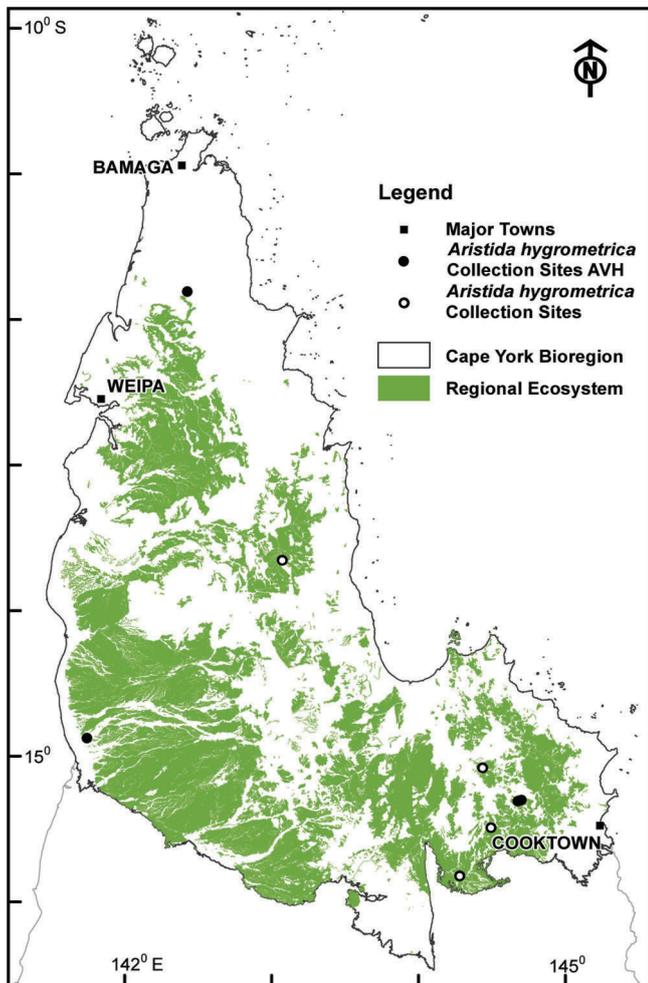


Fig 5. Map of CYP bioregion showing actual herbarium collections (from BRI and CNS) (solid circle) and site records (open circle) of *Aristida hygrometrica*. The green shading indicates areas where this species might also be found, based on similarity of habitat to locations where the species has been recorded. (Mapping supplied by P. Bannink, DES). Data attribution: Environment and Science, Queensland Government, Biodiversity status of pre-clearing and 2015 remnant regional ecosystems series - version 10.0 licensed under Creative Commons Attribution

> HABITAT

Usually found on sandy and alluvial soils in *Eucalyptus* and *Melaleuca* woodland and often the dominant grass on extensive river levees (Simon & Alfonso 2011).

> LAND MANAGEMENT NOTES

Considered unpalatable to stock (Milson 2000) with the sharp callus on the basal end of seeds likely to cause irritation.

RESOURCES:

AVH (2017) Australia's Virtual Herbarium, Council of Heads of Australasian Herbaria, <<http://avh.chah.org.au>>, accessed 30 May 2017.

Milson, J. (2000) Pasture plants of north-west Queensland. Information Series Q100015. Queensland Department of Primary Industries.

Rolfe, J., Golding, T. and Cowan, D. (1997) Is your pasture past it? The glove box guide to native pasture identification in north Queensland. Information Series Q197083. Queensland Department of Primary Industries.

Simon, B.K. (1992) A revision of the genus *Aristida* (Poaceae) in Australia. *Austral. Syst. Bot.* 5:129-226.

Simon, B.K. (2005) *Aristida*. *Flora of Australia* 44B: 9-18.

Simon, B.K. & Alfonso, Y. (2011) AusGrass2, <http://ausgrass2.myspecies.info>/accessed on [20 March 2017].

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This project is supported by the Queensland Government Department of Natural Resources and Mines through the Queensland Regional Natural Resource Management Investment Program