

Grasses of Cape York - Quinkan Country

Iseilema vaginiflorum Domin

Red Flinders Grass

A tufted erect annual grass up to 75 cm tall (Figs. 1a & b). Plants often with a red tinge to leaves and flowering heads. Leaves are cauline (arising along the erect stem), flat or folded together lengthwise, 10-20 cm long, 2.5-6 mm wide. Spikelets (the basic flowering unit) are arranged in mostly terminal clusters, enclosed within leaf-like floral sheaths and flattened laterally (Fig. 2a & b). There are often several floral sheaths in a cluster and at maturity seeds fall with floral sheaths intact. The spikelets have a conspicuous exerted awn (bristle), the awn is up to 15-23 mm long and sharply bent just above a twisted column or base (Fig. 3).



Fig. 1a. Herbarium sheet of *Iseilema vaginiflorum*



Fig. 1b. Habit of *Iseilema vaginiflorum* (image from Australian National Botanic Gardens <http://www.anbg.gov.au/photo, dig. 25851>)



Fig. 2a. Inflorescence of *Iseilema vaginiflorum* (image from Australian National Botanic Gardens <http://www.anbg.gov.au/photo, dig. 25854>)

> BOTANICAL DESCRIPTION

An annual species, culms erect, up to 75 cm tall, leaves cauline, blades flat or conduplicate, 10-20 cm long, 2.5-6 mm wide (Fig. 1). Inflorescences are terminal or axillary clusters of contracted racemose branches 1.2-1.7 cm long, the branches mostly enclosed within leaf-like floral sheaths (Fig. 2a & b). Floral sheaths contain usually two spikelet clusters, each cluster enclosed or subtended by a spathe 9-12 mm long, the lower cluster has 4 reduced spikelets forming a whorl or involucre around a bisexual more or less sessile basal spikelet which is awned and two reduced pedicelled spikelets (male or sterile) (Fig. 3). The second spikelet cluster is similar but with no involucre of four reduced spikelets. The inflorescences are laterally compressed and usually disarticulate or fragment at maturity, falling as one unit with the floral sheath.

> DIAGNOSTIC FEATURES

The species of this genus are easily recognised by the clusters of laterally flattened flowering heads usually enclosed or exerted from a leaf-like floral sheath, and their annual habit. They may be confused with species of *Themeda*, particularly *Themeda triandra*, but can be differentiated by their generally smaller annual habit, the presence of a leaf like floral sheath with a distinct sheath and blade, and the generally smaller spathe, involucral spikelets and awns (Fig. 4). For other differences between the genera consult Simon & Alfonso (2011). *Iseilema vaginiiflorum* is most similar to *Iseilema fragile* and can only be separated from that species by the presence of involucral spikelets in the lower clusters. From other species of *Iseilema* in the region it is distinguished by the flowering heads breaking apart and falling off the stem at maturity, and the spikelets mostly enclosed within the floral sheaths. According to Milson (2000) the flowering or seed heads are more flattened and less dense than other species of Flinders grass.

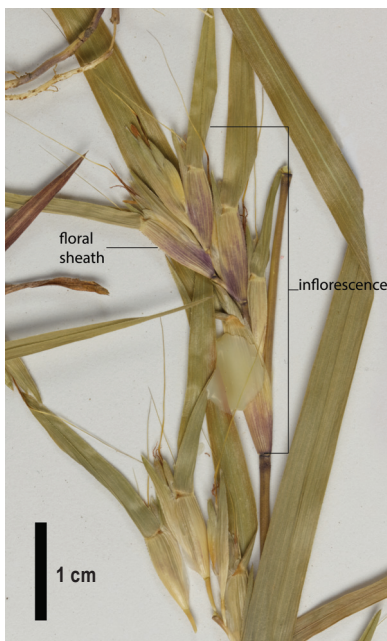


Fig. 2b. Inflorescence of *Iseilema vaginiiflorum*

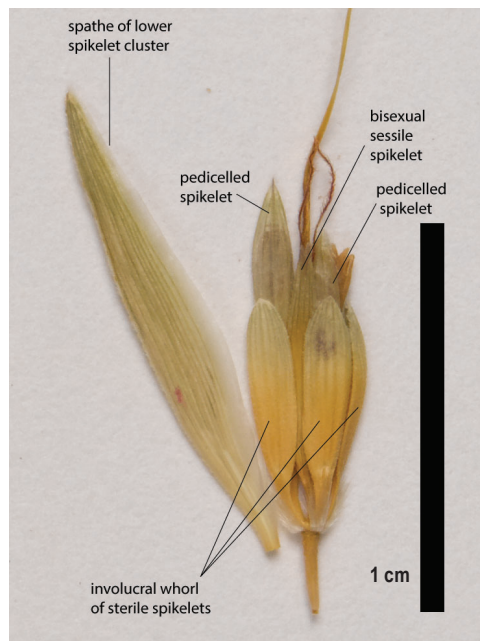


Fig. 3. Lower spikelet cluster of *Iseilema vaginiiflorum* with spathe and involucre of sterile spikelets



Fig. 4. *Themeda triandra* inflorescence
(image from Australian National Botanic Gardens
http://www.anbg.gov.au/photo_dig.21073)

> NATURAL VALUES

Apparently this species sets abundant seed and as such is likely to provide food for grain eating animals.

> HABITAT

This grass is widespread throughout tropical and subtropical Australia and is recorded for all mainland states except Victoria, in Cape York Peninsula not recorded north of 15°S. Usually found on black soil plains and often with *Astrebla* (Mitchell grass).

> LAND MANAGEMENT NOTES

Considered a highly palatable genus, especially when young and useful for making hay (Lazarides 202, Milson 2000, Rolfe et al. 1997, Simon 1992b, Simon & Alfonso 2011).

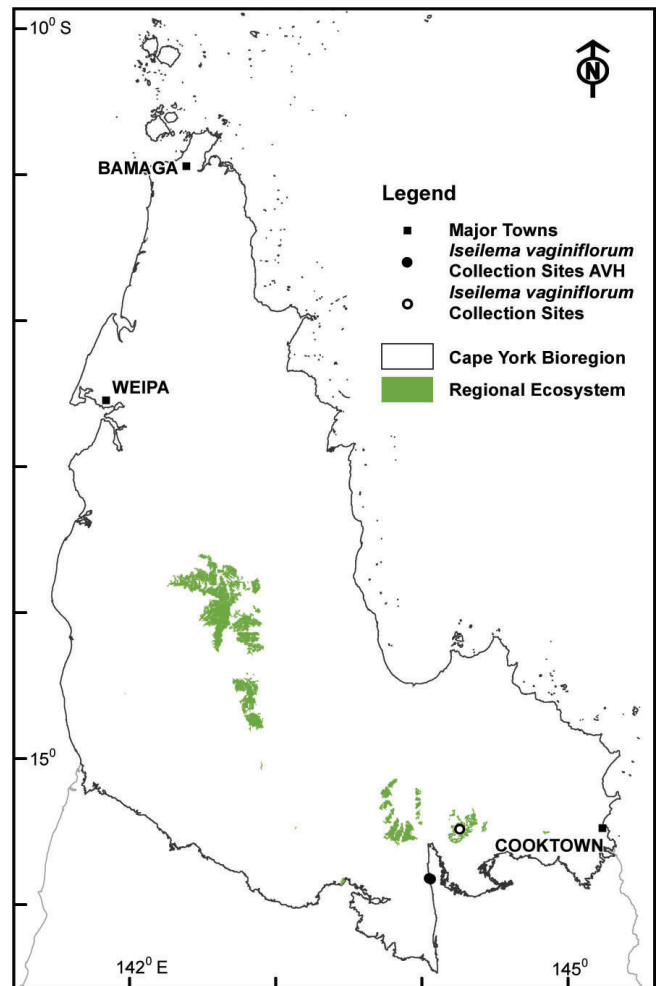


Fig. 5. Map of CYP bioregion showing actual herbarium collections (from BRI and CNS) (solid circle) and site records (open circle) of *Iseilema vaginiflorum*. The green shading indicates areas where this species might also be found, based on similarity of habitat to locations where the species has been 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.

RESOURCES:

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

Lazarides, M. (2002) Economic attributes of Australian grasses. *Flora of Australia* 43: 213-245.

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. (1992b) *Iseilema*. In J.R. Wheeler (ed.), B.L. Rye, B.L. Koch & A.J.G. Wilson. *Flora of the Kimberley Region*. (Western Australian Herbarium, Dept. of Conservation and Land Management Como, W.A.), pp. 1181-1185.

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

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