

Table 1. Morphological and anatomical comparison of *Canastra* with related taxa of Paniceae.

Taxon Characters	<i>Canastra</i>	<i>Arthropogon</i>	<i>Altoparadisium</i>	<i>Homolepis</i>	<i>Streptostachys asperifolia</i>	<i>Panicum sect. Laxa</i>	<i>Panicum sect. Lorea</i>	<i>Panicum sect. Prionitia</i>	<i>Achlaena</i>
Anatomical type	C3	C4 MS	C4 MS	C3	C3	C3	C3	C4 MS	C4 MS
Fusoid cells	present	absent	absent	present	present	present	absent	absent	absent
Distinctive Kranz Cells	absent	absent	present	absent	absent	absent	absent	absent	present
Compression of the spikelet	dorsiventral	lateral	dorsiventral	dorsiventral	dorsiventral	dorsiventral	dorsiventral	dorsiventral	lateral
Hairy callus	absent	present	present	absent	absent	absent	absent	absent	present
Stipe	absent	absent	absent	absent	present, and torose	absent	absent	absent	present, and pointed
Lower glume (LG)	awned	awned	absent or awned	muticous	muticous	muticous	muticous	muticous	awned
Relative length of the LG relative to spikelet	1/3	1/2-3/4	absent or reduced	1/1	2/3-4/5	1/3-2/4	1/2-4/5	1/2-3/4	reduced
Nervation of LG	1-nerved	3-nerved	1-nerved	5-9-nerved	5-7-nerved	1-3-nerved	1-5-nerved	3-nerved	1-nerved
Upper glume (UG)	awned	awned	awned	muticous	muticous	muticous	muticous	muticous	awned
Texture of UG	herbaceous	coriaceous	herbaceous	herbaceous	herbaceous	herbaceous	herbaceous	herbaceous	coriaceous
Lower flower	present	present	absent	present or absent	absent	present or absent	present or absent	present	absent
Upper antherium	cartilaginious	hyaline	hyaline	indurated	indurated	membranous to indurate	indurate	indurate	hyaline
Hilum	punctiform	punctiform	punctiform	linear 1/1	linear 1/1	punctiform	punctiform	punctiform	punctiform