## A Key to the Tropical African species of *Breutelia*

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## Translated by C.R. Stevenson

1	Stem leaves with a distinct sheath and limb; sheath appressed to the stem & strongly plicate. Successive leaf plicae fitting together more or less tightly	2
1	Stem leaves without a distict sheathing area; if a sheath is present, then it is not, or only lightly plicate, and not, or only lightly appressed to the stem	10
2	Stem leaves more than 6mm long (often 7-9mm, rarely 12mm); leaf lamina squarrose, or more often reflexed. Stem little branched	B. stuhlmanni
2	Stem leaves less than 6mm; lamina erecto-patent, squarrose, or reflexed. Stem branched or not	3
3	Stem leaves a maximum of 2mm long. Stems branched, with abundant deep tomentum almost entirely concealing the leaves	B. madagassa
3	Stem leaves more than 2mm long	4
4	Most of the stem leaves with the blade bent sharply away from the sheathing base so that they are pointing slightly downwards or even reflexed back on the stem, or at least squarrose	5
4	Most of the stem leaves with the blade patent to squarrose, sometimes erect to patent. A few blades may be bent slightly downwards	6
5	Stem leaves $4.4-5.3 \times 1-1.3 \text{mm}$ , with a wide tip, long, almost ciliate, sharp teeth and stiff stems	B. stricticaulis
5	Stem leaves $(2.2)2.5-4(4.5) \times 0.6-1$ mm, narrowly pointed, with short teeth and stems stiff or flexuous	B. diffracta
6	Stem leaves not normally more tham 4mm long, with blade almost squarrose or patent / spreading. Stems with numerous branches	7
6	Stem leaves more than 4.5mm long, with a squarrose to patent / spreading limb, or stem leaves 3.7-5mm, and the blade erecto-patent	8
7	Perfect peristome present. A plant of Madagascar & the Mascarenes	B. perrieri
7	Peristome rudimentary, more or less abortive, often apparently absent. A plant of continental Africa	B. diffracta
8	Stem leaves spreading, 3.7-4.9mm long; cells of leaf blade irregularly arranged. Leaf margin obscurely and bluntly toothed	B. humberti
8	Stem leaves 4.5- 5.6mm long, blades stiffly squarrose or secund. Leaf cells in regular rows. Leaf margin with long sharp teeth	9
9	Stem leaves squarrose, stiff. Leaf cells with thick, non-porose walls. Stem stiff, sometimes with numerous branches	B. borbonica
9	Stem leaves secund. Leaf cells with thick, distinctly porose walls. Stem little branched	B. sciuroides
10	Limb and leaf sheath distinct; sheath not, or scarcely, plicate, and not closely appressed to the stem. (Under the microscope the leaf outline forms a more or less marked angle at their junction, or the blade is abruptly narrowed)	11
10	Leaf blade and sheath not distinct. (Under the microscope the leaf outline is regularly convex, or nearly straight)	13

11	Stem leaves reaching a maximum length of 2mm	B. viguieri
11	Stem leaves more than 2mm long	12
12	Stem leaf margins plane, or recurved in places. Small short closely set teeth	В.
	present. Forming dense cushions. Stems and branches upright and close set	muhavurensis
12	Stem leaves recurved nearly to the middle of the blade, with well marked	B. gnaphalea
	teeth. Plant forming lax cushions, with spreading branches	
13	Stem leaves clearly lanceolate, widest in the lowest quarter of the blade,	B. magdalenae
	above the base. Nerve vanishing in the leaf tip	
13	Stem leaves narrowly triangular; maximum width near the leaf base. Nerve	14
	percurrent to longly excurrent	
14	Stem leaves 3.5-4.5 x 0.7-0.9mm, clearly plicate	B. aristaria
14	Stem leaves reaching a maximum length of 3.5mm long, and 0.6mm wide.	15
	Not or scarcely plicate	
15	Leaf cells having a well marked terminal papilla, generally slanting and	В.
	projecting above neighbouring cells; leaves spreading, stiff	stenodictyon
15	Terminal papilla on leaf cells feebly developed, upright. Leaves upright or	16
	very spreading	
16	Stem leaves very spreading, flexuous. Nerve longly excurrent	B. sclerodictya
16	Stem leaves upright or stiffly spreading / upright. Nerve shortly excurrent	B. gracillima

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