

Chusquea Kunth

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This treatment is composed of the following taxa: *Chusquea*, *Chusquea acuminata*, *Chusquea anelythra*, *Chusquea anelytroides*, *Chusquea attenuata*, *Chusquea baculifera*, *Chusquea bahiana*, *Chusquea bambusoides*, *Chusquea bradei*, *Chusquea caparaoensis*, *Chusquea capitata*, *Chusquea capituliflora*, *Chusquea ciliatifolia*, *Chusquea clemirae*, *Chusquea diversiglumis*, *Chusquea erecta*, *Chusquea fasciculata*, *Chusquea fruticosa*, *Chusquea gouveiensis*, *Chusquea gracilis*, *Chusquea hatschbachii*, *Chusquea heterophylla*, *Chusquea ibiramae*, *Chusquea imbricata*, *Chusquea juergensii*, *Chusquea kleinii*, *Chusquea leptophylla*, *Chusquea linearis*, *Chusquea longispiculata*, *Chusquea meyeriana*, *Chusquea microphylla*, *Chusquea mimosa*, *Chusquea mirabilis*, *Chusquea nudiramea*, *Chusquea nutans*, *Chusquea oligophylla*, *Chusquea oxylepis*, *Chusquea parviligulata*, *Chusquea pinifolia*, *Chusquea pulchella*, *Chusquea ramosissima*, *Chusquea riosaltensis*, *Chusquea sclerophylla*, *Chusquea sellowii*, *Chusquea tenella*, *Chusquea tenuiglumis*, *Chusquea urelytra*, *Chusquea wilkesii*, *Chusquea windischii*.

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Has as synonym

heterotypic *Dendragrostis* Nees

heterotypic *Neurolepis* Meisn.

heterotypic *Platonia* Kunth

heterotypic *Rettbergia* Raddi

heterotypic *Swallemochloa* McClure

DESCRIPTION

Plants erect, clambering/scandent or apically arching/pendulous; rhizomes pachymorph, less commonly leptomorph or sometimes amphimorph, with short necks. Culms (0.3-) 1-12 (-20) m long, (0.2-) 0.5-5.5 (-7) cm diameter. Internodes solid or rarely hollow, if hollow then relatively thin-walled, all subequally elongated. Culm leaf sheaths without a flange-like projection but in a few species with a short skirt, deciduous or persistent, rarely caducous, chartaceous to coriaceous, without auricles, fimbriae or oral setae; sheath margins sometimes fused at the base; girdle poorly developed to very well developed; blades persistent or deciduous in a few species, usually erect, spreading to reflexed in a few species, usually triangular, sometimes cordate at the base, but pseudopetiolate in a few species, usually chartaceous. Branching extravaginal, infravaginal, intravaginal or aerial branching absent (subgenera *Platonia* and *Magnifoliae*), branch complements consisting of usually one dominant central branch subtended or flanked by 2 to numerous smaller leafy subsidiary branches, these sometimes of two sizes, arising from multiple

and almost always dimorphic buds, one usually larger central bud subtended or flanked by a few to numerous smaller subsidiary buds, these constellate, linear or verticillate in arrangement (subgenera *Chusquea*, *Rettbergia* and *Swallenochloa*) or only one triangular bud present but not developing (subgenera *Platonina* and *Magnifoliae*), promontory absent. Foliage leaf sheaths without auricles, fimbriae or oral setae; blades usually differentiated, linear, lanceolate to broadly lanceolate or less commonly ovate, variable (from ca. 1.5 cm to 4 m long and ca. 2 mm to 30 cm wide), the width usually symmetric, asymmetric in a few species on each side of the midrib. Synflorescences paniculate or rarely racemose, varying from congested to pyramidal with branches spreading to reflexed, and sometimes capitate (especially in subg. *Rettbergia*), sometimes subtended by 1-2 (-4) spatheate bracts. Spikelets bisexual, pedicellate, usually lanceolate, sometimes slightly falcate to falcate, usually laterally compressed. Glumes 4, glumes 1 and 2 usually similar, sometimes unequal, virtually absent to scale-like to well developed, sometimes longer than the spikelet body; glumes 3 and 4 developed, usually similar, often unequal, usually at least 1/3 the spikelet length to equaling the spikelet length, obtuse, acute, mucronate or awned; sterile lemmas 0; fertile floret 1, a rudimentary terminal floret absent; rachilla extension absent; lemmas acute, mucronate or awned, indument variable. Lodicules 3. Stamens 3 (rarely 2). Caryopsis basic.

Life Form

Bamboo

Substrate

Terrestrial

DISTRIBUTION

Native, Not endemic to Brazil

Phytogeographic Domains

Amazon Rainforest, Caatinga, Central Brazilian Savanna, Atlantic Rainforest, Pampa

Vegetation Types

Anthropic area, High Altitude Grassland, Highland Rocky Field, Cerrado (lato sensu), Riverine Forest and/or Gallery Forest, Seasonally Deciduous Forest, Seasonally Semideciduous Forest, Ombrophyllous Forest (Tropical Rain Forest), Mixed Ombrophyllous Forest, Coastal Forest (Restinga), Rock outcrop vegetation

Geographic Distribution

Confirmed occurrences

North (Amazonas, Roraima)

Northeast (Alagoas, Bahia, Ceará, Paraíba, Pernambuco)

Southeast (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

South (Paraná, Rio Grande do Sul, Santa Catarina)

Possible occurrences

Northeast (Bahia)

Southeast (São Paulo)

South (Paraná, Santa Catarina)

IDENTIFICATION KEY

Key to infrageneric groups of *Chusquea*

1. Aerial branching present; culm leaves differentiated.
 2. Lemma with apex connate; central bud circular in outline and oriented horizontally; branching infravaginal with the nodal line dipping markedly below the bud/branch complement..... C. subg. *Rettbergia*
 2. Lemma with apex free; central bud usually triangular in outline and oriented vertically, uncommonly circular and oriented horizontally; branching extravaginal, intravaginal or infravaginal, if infravaginal, the nodal line dipping slightly below the bud/branch complement.
 3. Branching usually intravaginal, sometimes extravaginal; usually of high elevation grasslands or upper montane forests..... C. subg. *Swallenochloa*
 3. Branching extravaginal or infravaginal; usually of montane forests..... C. subg. *Chusquea*
1. Aerial branching absent; culm leaves poorly or not differentiated.
 4. Pseudopetioles usually absent to short (0.1-0.6 cm); glumes usually with well developed awns C. subg. *Platonina*
 4. Pseudopetioles well developed, (1-) 3-50 cm long; glumes usually lacking awns C. subg. *Magnifoliae*

Key to the Species of *Chusquea* in Brazil

1. Specimen consisting of only vegetative material.....2
1. Specimen consisting of only flowering material or both flowering and vegetative material.....61

2. Aerial branching absent; foliage leaf blades ca. 50#66 × 3.5#3.7 cm; inner ligules with margin lacerate; known only from the Serra da Neblina, Amazonas, Brazil *C. diversiglumis*
2. Aerial branching present; foliage leaf blades 0.85#22 × 0.06#5 cm; inner ligules with margin entire; northeastern, central, southeastern and southern Brazil with one species on Monte Roraima.....3

3. Foliage leaf sheaths deciduous from the lower nodes of the subsidiary branches.....4
3. Foliage leaf sheaths persistent on the subsidiary branches.....10

4. Central bud/branch flanked by 1#3 subsidiary buds/branches on each side in one linear row; branching intravaginal.....5
4. Central bud/branch subtended by 1#2 rows of subsidiary buds/branches or flanked by 4#5 slightly smaller subsidiary buds/branches and this row subtended by 4#5 rows of medium- to small-sized subsidiary buds/branches; branching extravaginal.....6

5. Foliage leaf blades on vegetative branches 0.2–0.4 mm wide, L:W = 10.3#20 *C. fruticosa*
5. Foliage leaf blades (0.5#) 0.8#1 mm wide, L:W = 5.5#8.6..... *C. windischii*

6. Central bud/branches flanked by slightly smaller subsidiary buds/branches, and subtended by 4#5 rows of medium to small sized subsidiary buds/branches; foliage leaves with inner ligules 0.2#0.5 (#1) mm long, truncate, and sheaths mottled..... *C. juergensii*
6. Central bud/branch subtended, not flanked, by 1 or 2 rows of subsidiary buds/branches; foliage leaves with inner ligules 0.5# 4.0 mm long, rounded or slightly rounded, and sheaths uniform in color, not mottled.....7

7. Central bud nearly circular; culm leaf blade narrowly triangular, erect becoming reflexed, caducous; smaller subsidiary branches 4#10 per node..... *C. nudiramea*
7. Central bud triangular; culm leaf blade triangular, erect, persistent; smaller subsidiary branches 15#80 per node.....8

8. Central bud/branch subtended by 1#2 more or less linear rows of subsidiary buds/branches; foliage leaf blades 0.18#0.25 cm wide, L:W = (22.5#) 25.6#33*C. caparaensis*
8. Central bud/branch subtended and partially encircled by 1#2 rows of subsidiary buds/branches; foliage leaf blades (0.2#) 0.5# 0.9 (#1.2) cm wide, L:W = (4#) 7.5#24....9

9. Culm leaf sheaths 1#5 times as long as the blade; smaller subsidiary branches 15#40 per node; foliage leaf blades (0.3#) 0.5#0.9 (#1.2) cm wide, L:W = (4#) 7.7#15, base attenuate to rounded-attenuate.....*C. mimosa* subsp. *mimosa*
9. Culm leaf sheaths (3.5#) 12#27.5 (#50) times as long as the blade; smaller subsidiary branches 45#80 per node; foliage leaf blades (0.2#) 0.4#0.7 cm wide, L:W = 10.6#24, base attenuate.....*C. mimosa* subsp. *australis*

10. Subsidiary branches erect, in 1 row, linear; branching intravaginal.....11
10. Subsidiary branches ascending or spreading or horizontal or reflexed, in 1#6 rows, constellate; branching extravaginal or infravaginal.....19

11. Central branch curving away from the main culm, sometimes more or less erect at the base before curving.....12
11. Central branch erect and more or less appressed to the main culm for its full length or nodding above the base or ascending but not curved.....14

12. Foliage leaves 8#10 (#13) per complement; foliage leaf blades 0.3#0.4 cm wide; Serra do Ibitipoca and Serra Negra, Minas Gerais..... *C. riosaltensis*
12. Foliage leaves 3#8 per complement; foliage leaf blades 0.4#1 cm wide; Morro da Igreja, Santa Catarina.....13
13. Culms ca. 1 m tall; subsidiary branches 4#11 cm long; central branch strongly sinuous..... *C. windischii*
13. Culms 1#1.5 m tall; subsidiary branches 4#16 cm long; central branch gently curved *C. hatschbachii*
14. Foliage leaf blades 0.06#0.25 (#0.4) cm wide, L:W = 17#60, the base attenuate....15
14. Foliage leaf blades 0.3#1.1 cm wide, L:W = 6.5#14 (#19), the base truncate-rounded to rounded-attenuate.....17
15. Central bud/branch flanked by subsidiary buds/branches; foliage leaf blades with L:W = (25#) 33#60; culm leaf sheaths fused at the base for 0.3#1.5 cm, the blade usually not distinguishable from the sheath..... *C. nutans*
15. Central bud/branch subtended by subsidiary buds/branches; foliage leaf blades with L:W = 8#31; culm leaf sheaths not fused at the base, blades distinguishable from the sheath.....16
16. Internodes sulcate, 14#20 cm long; culm leaves deciduous, (20#) 33#55 cm long, extending (1.4#) 2#3 times the internode length, abaxially with setose trichomes at the base; foliage leaf blades with L:W = (8#) 10#17.3..... *C. imbricata*
16. Internodes terete, 3#11 cm long; culm leaves persistent, 5.3#14.2 cm long, usually shorter than or equaling one internode but sometimes longer, never more than 1.3 times the internode length, abaxially glabrous or retrorsely scabrous; foliage leaf blades with L:W = 17#31..... *C. pinifolia*
17. Foliage leaf blades 0.6#1.1 cm wide, the sheaths pubescent between the marginal 2 or 3 nerves, otherwise glabrous..... *C. sclerophylla*
17. Foliage leaf blades 0.3#0.5 (#0.7) cm wide, the sheaths with indument homogeneous18
18. Foliage leaves 10#13 per complement; foliage leaf blades with L:W = 5#11.2; foliage leaf sheaths glabrous to softly pubescent toward the apex; culm leaves abaxially glabrous *C. baculifera*
18. Foliage leaves (7#) 10#24 per complement; foliage leaf blades with L:W = 10#15 (#19); foliage leaf sheaths pubescent-hispid between the nerves; culm leaves abaxially pubescent *C. erecta*
19. Subsidiary branches of two sizes (diameters); culm leaf blades ovate-lanceolate to lanceolate, pseudopetiolate, usually spreading to reflexed and green for an extended period.....20
19. Subsidiary branches subequal in diameter; culm leaf blades triangular, erect and the same color as the sheath.....24
20. Branches 20#50 per node; the nodal line dipping markedly below the bud/branch complement..... *C. ramosissima*
20. Branches 7#24 per node; the nodal line dipping only slightly below the bud/branch complement.....21
21. Foliage leaf sheath summit extension developed only on one side, 0.1#0.4 mm long; foliage leaf inner ligules 0.2#0.3 mm long..... *C. fasciculata*
21. Foliage leaf sheath summit extensions developed on both sides, strongly unequal, 1#30 mm long; foliage leaf inner ligules 1#40 mm long.....22
22. Foliage leaf blades abaxially glabrous except pubescent at the base on both sides of the midrib; foliage leaf sheath summit densely ciliate; foliage leaf outer ligules ca. 0.5 mm long and inner ligules 1#7 mm long..... *C. tenella*
22. Foliage leaf blades abaxially glabrous at the base; foliage leaf sheath summit extensions glabrous; foliage leaf outer ligules 0.5#5 mm long and inner ligules 3.5#40 mm long.....23

23. Foliage leaf blade base \pm symmetrical to slightly asymmetrical, outer ligules glabrous, sheath summit extensions 4#30 mm long..... *C. tenuiglumis* var. *tenuiglumis*
23. Foliage leaf blade base asymmetrical, outer ligules bearing cilia to 1 mm long, sheath summit extensions ca. 1 mm long..... *C. tenuiglumis* var. *laxiuscula*
24. Branching extravaginal, branches breaking through the base of the sheath; nodal line more or less horizontal or dipping slightly below the bud/branch complement; subsidiary branches spreading in all directions.....25
24. Branching infravaginal, branches breaking through the girdle, usually not rupturing the sheath base; nodal line dipping slightly to markedly below the bud/branch complement; subsidiary branches often spreading horizontally to downwards, sometimes spreading in all directions.....30
25. Branches 4#10 per node; in open shrublands on Monte Roraima, Roraima, Brazil
..... *C. linearis*
25. Branches (12#) 20#195 per node; in forests or high elevation grasslands in southeastern and southern Brazil (Minas Gerais and Espírito Santo to Rio Grande do Sul)26
26. Foliage leaf blades 0.8#3.7 cm long; culms 0.5#2 (#3.5) m tall, erect or erect at the base and inclined to slightly arching at the apices.....27
26. Foliage leaf blades 2.2#9.8 cm long; culms 2#5 (#9) m tall/long, erect at the base and arching to scandent above.....28
27. Foliage leaf blades 1.3#3.7 cm long, 0.2#0.4 cm wide; subsidiary branches 3#15 cm long, (12#) 20#45 per node, the central branch usually developing, robust; nodes with the supranodal ridge prominent; subsidiary buds in 2 rows in a crescent-shaped arrangement;
culms 1#2 (#3.5) m tall.....*C. heterophylla*
27. Foliage leaf blades 0.8#2 cm long, 0.1#0.2 cm wide; subsidiary branches 1.5#4 cm long, 30#60 per node, the central branch usually not developing; nodes with the supranodal ridge obscure; subsidiary buds in 5 or 6 rows in a triangular arrangement;
culms 0.5#1 m tall.....*C. microphylla*
28. Foliage leaf blades toward the branch apices with the base asymmetrical, one side attenuate and the other rounded-attenuate; internodes glabrous, a white waxy band present just below the nodal line on young culms; culm leaf blades differentiated, deciduous, apex flat, with the inner ligule 1.5#3 mm long; transitional zone between upper montane Atlantic forest and high elevation grasslands at 1,950#2,425 m *C. acuminata*
28. Foliage leaf blades with the base \pm symmetrical, attenuate; internodes usually with a band of hairs below the nodal line, a white waxy band absent; culm leaf blades not differentiated from the sheaths, the apices becoming folded or twisted and sometimes also recurved upon drying, inner ligule absent; forests at 550#1,300 m.....29
29. Leafy subsidiary branches 40#90 per node, usually ascending; internodes with the upper 1/4#1/3 pilose-hispid; foliage leaf blades with L:W = 7.7#12 (#13.3); Serra do Espinhaço, Minas Gerais, 1,200#1,300 m..... *C. gouveiensis*
29. Leafy subsidiary branches 70#195 per node, horizontally oriented and appearing verticillate; internodes usually with a pilose band 0.5#1 (#3) cm long just below the nodal line, sometimes becoming glabrous; foliage leaf blades with L:W = 14#27; Rio Grande do Sul, Santa Catarina and Paraná, 550#880 m..... *C. gracilis*
30. Foliage leaf blades 1.7#5 cm wide, with inner ligules 3#60 mm long, attenuate.....31
30. Foliage leaf blades 0.2#1.8 cm wide, with inner ligules 0.05#9 mm long, acute to truncate or irregular.....32
31. Culm leaf sheaths 3#7 times as long as the blades; foliage leaf blades 11#17.7 cm long, apex acuminate, base rounded..... *C. anelytroides*
31. Culm leaf sheaths 2#3 (#5) times as long as the blades; foliage leaf blades 10.6#27 cm long, apex setose, base attenuate-rounded..... *C. ibiramae*
32. Nodal line dipping slightly below the bud/branch complement; central bud deltoid, triangular in outline (sometimes broadly so and appearing almost circular), the apex vertically oriented; the central branch if developed erect to ascending.....33
32. Nodal line dipping somewhat to markedly below the bud/branch complement; central bud dome-shaped, circular in outline, the apex horizontally oriented; the central branch if developed \pm horizontally oriented.....40

33. Foliage leaf blades 0.2#0.45 cm wide.....34
 33. Foliage leaf blades 0.6#1.8 cm wide.....37
34. Culm internodes with a white waxy band 0.3#0.7 cm wide below the node, this wearing away with age, glabrous; culm leaf blade apices flat.....35
 34. Culm internodes lacking a white waxy band, with a band 0.5#1 or 1.2#2.2 cm wide of dense, pilose trichomes below the node, this band sometimes glabrescent; culm leaf blade apices becoming folded or twisted and sometimes recurved upon drying.....36
35. Foliage leaf blades 4#9.8 cm long, L:W = (13#) 17#33; culm leaf sheath base with overlapping margin fused for 0.2#0.5 cm, sheath apex with a 1#3 mm summit extension on each side; southeastern Minas Gerais and Rio de Janeiro at 1,950-2,425 m *C. acuminata*
 35. Foliage leaf blades 2.2#6.1 cm long, L:W = 6#18 (#20.3); culm leaf sheath base with overlapping margin free, sheath apex lacking summit extensions; endemic to southern Bahia, 800#960 m.....
 *C. parviligulata*
36. Leafy subsidiary branches 40#90 per node, usually ascending; internodes with the upper ¼-1/3 pilose-hispid; foliage leaf blades with L:W = 7.7#12 (#13.3); Serra do Espinhaço, Minas Gerais, 1,200#1,300 m..... *C. gouveiensis*
 36. Leafy subsidiary branches 70#195 per node, horizontally oriented and appearing verticillate; internodes usually with a pilose band 0.5#1 (#3) cm long just below the nodal line, sometimes becoming glabrous; foliage leaf blades with L:W = 14#27; Rio Grande do Sul, Santa Catarina and Paraná, 550#880 m..... *C. gracilis*
37. Central bud broadly triangular in outline, appearing almost circular; culm leaves with inner ligules (2#) 3#7 mm, the sheaths bearing summit extensions; foliage leaf blades with L:W = 10#20.....
 *C. meyeriana*
 37. Central bud triangular in outline; culm leaves with inner ligules 0.5#1.5 mm, the sheaths lacking summit extensions; foliage leaf blades with L:W = 5.3#14.....38
38. A white waxy band below the node absent; foliage leaf blades with L:W = 5.3#7.3 (#8.7), the sheath margins becoming scarious, the inner ligules 1#9 mm long... *C. wilkesii*
 38. A white waxy band 0.4#1 cm wide present below the node, often wearing away with age; foliage leaf blades with L:W = 7.2#14, the sheath margins not scarious, remaining the same in texture throughout, inner ligules 0.5#1 mm long.....
39
39. Foliage leaf blades adaxially sparsely hairy with the highest concentration of trichomes at the base; culm leaf sheaths 1.1#1.4 times as long as the blades; culm internodes slightly lignified with a spongy medulla, solid to hollow, collapsed; endemic to southern Bahia..... *C. clemirae*
 39. Foliage leaf blades adaxially glabrous; culm leaf sheaths 2.2#3.6 times as long as the blades; culm internodes lignified, solid, terete; occurring in Rio de Janeiro and São Paulo.....
 *C. longispiculata*
40. Foliage leaf blades with L:W = (16#) 22#40 (#52), the margins smooth at the base, becoming irregularly scabrid above the lower 1/3..... *C. leptophylla*
 40. Foliage leaf blades with L:W = 3#24, the margins usually scabrous along the full length, sometimes glabrous or ciliate.....41
41. Nodal line dipping slightly below the bud/branch complement; culm leaf blades triangular to broadly triangular, midrib abaxially indistinguishable from the other veins
42
 41. Nodal line dipping markedly below the bud/branch complement; culm leaf blades narrowly triangular, midrib abaxially distinguishable, often prominent and forming a keel
44
42. Internodes glaucous when young, lacking a white waxy band below each node; foliage leaf sheaths glabrous, sometimes pubescent or hispid toward the margins and the apex; culm leaves with inner ligules (2#) 3#7 mm, the sheaths 0.8#2 times the blades and bearing summit extensions..... *C. meyeriana*

42. Internodes glaucous or not when young, with a white waxy band below each node, this often wearing away with age; foliage leaf sheaths scabrous to hispid on the upper half, sometimes also hispid-hirsute at the apex; culm leaves with inner ligules 0.6#1.5 mm, the sheaths 3#9.4 (#10.4) times the blades and without summit extensions.....43
43. Foliage leaf blades 0.7#1.3 cm wide, base asymmetrical, one side attenuate and the other subcordate to rounded-truncate; culm leaf sheaths 3#4 (#4.7) times as long as the blades..... *C. anelythra*
43. Foliage leaf blades (0.3#) 0.4#0.7 cm wide, base ± symmetrical, attenuate; culm leaf sheaths 7#9.4 (#10.4) times as long as the blades..... *C. attenuata*
44. Foliage leaf blades with margins ciliolate to ciliate, at least toward the apex, the cilia to 1 mm long.....45
44. Foliage leaf blades with margins scabrous to glabrous.....49
45. Foliage leaf blades olive green; culm internodes densely pilose-hispid just below the node..... *C. bradei*
45. Foliage leaf blades green; culm internodes usually glabrous just below the node, sometimes with scattered appressed hairs or somewhat hispid, but never densely so....46
46. Foliage leaf blades 0.25#0.5 cm wide, abaxially tomentose, the margins ciliate only toward the apex, cilia < 0.3 mm long..... *C. pulchella*
46. Foliage leaf blades 0.5#1.6 cm wide, abaxially glabrous except for the basal tuft of trichomes, the margins ciliolate or ciliate for full length, cilia to 1 mm long.....47
47. Foliage leaf blades with L:W = 16#17; restricted to southern Bahia and northern Minas Gerais.....
..... *C. ciliatifolia*
47. Foliage leaf blades with L:W = 4.5#12.5; widespread from Espírito Santo to Rio Grande do Sul.....48
48. Culm internodes blackened or with irregular black splotches; foliage leaf sheath summit extensions minimal, to 0.2 mm; subsidiary branches (5#8) 10#22 per node, 1#1.2 mm in diameter; foliage leaves 4#10 per complement; growing at elevations of 700#1,300 m..... *C. oligophylla*
48. Culm internodes uniform in color; foliage leaf sheath summit extensions 0.2-0.5 mm long; subsidiary branches 4#8 (#14) per node, 0.5#1 (#2) mm in diameter; foliage leaves 3-4 per complement; growing at elevations of 1,150#1,800 m.....
..... *C. sellowii*
49. Culm internodes blackened or with irregular black splotches.....50
49. Culm internodes uniformly green or pale brown, sometimes slightly discolored with age.....51
50. Foliage leaf blades 0.35#0.55 cm wide, L:W = 17#24; culm leaf sheaths 15#20 times as long as the blade; subsidiary branches 18#40 per node, 0.5 mm in diameter; endemic to southeastern Bahia.....
..... *C. mirabilis*
50. Foliage leaf blades 0.5#1.1 cm wide, L:W = 6.5#12.5; culm leaf sheaths (14#) 20#47 times as long as the blade; subsidiary branches (5#) 10#22 per node, 1#1.2 mm in diameter; widespread from Rio de Janeiro to Santa Catarina..... *C. oligophylla*
51. Foliage leaf blades 0.25#0.5 cm wide..... *C. pulchella*
51. Foliage leaf blades (0.6#) 0.7#5.8 cm wide.....52
52. Culm internodes glabrous to scabrous just below the node.....53
52. Culm internodes sparsely to densely hispid just below the node.....57
53. Foliage leaf blades with an abaxial tuft of hairs at the base, this sometimes extending into the pseudopetiole.....54
53. Foliage leaf blades lacking an abaxial tuft of hairs at the base.....55
54. Subsidiary branches (8#) 12#25 per node; foliage leaf outer ligules 0.1#0.6 mm long, inner ligules 0.7#1.5 mm long; culm leaf sheaths 7#9 times as long as the blade

- *C. capitata*
 54. Subsidiary branches 4#11 per node; foliage leaf outer ligules 0.4#1.5 mm long, inner ligules 1#3 mm long; culm leaf sheaths 3.5#7 (#11) times as long as the blade
 *C. oxylepis*
55. Subsidiary branches (8#) 12#25 per node; foliage leaf sheath summit extensions ca. 0.5 mm long, ciliate..... *C. capitata*
 55. Subsidiary branches 4#12 per node; foliage leaf sheath summit extensions 0.5#2 mm long, usually lacking cilia.....56
56. Culm internodes 0.7#1 cm in diameter; foliage leaf outer ligules 0.4#1 mm long and often reflexed, inner ligules 1#3 mm long; foliage leaf sheath summit extensions 1#2 mm long
 *C. bambusoides*
 56. Culm internodes 1#2 cm in diameter; foliage leaf outer ligules 0.2#0.5 mm long and erect, inner ligules (0.5#) 1# 1.5 mm long; foliage leaf sheath summit extensions 0.5#1 mm long.....
 *C. capituliflora*
57. Foliage leaf blades 2.4#4.3 (#5.8) cm wide, L:W = 3#6, abaxially glabrous, basal tuft of hairs absent; culm internodes 1#1.75 cm in diameter; foliage leaf sheath summit extensions 2#2.5 mm long.....
 *C. bahiana*
 57. Foliage leaf blades 0.7#1.6 cm wide, L:W = 4#15, abaxially glabrous but with a basal tuft of hairs or abaxially pubescent and without an obvious basal tuft; culm internodes (0.1#) 0.2#1 cm in diameter; foliage leaf sheath summit extensions 0.2#1.5 mm long..58
58. Culm internodes densely pilose-hispid just below the node; foliage leaf blades olive green; subsidiary branches 12#25 per node..... *C. bradei*
 58. Culm internodes somewhat hispid to hispid just below the node; foliage leaf blades green; subsidiary branches 4#14 (#22) per node.....59
59. Subsidiary branches 4#8 (#14) per node, 0.5#1 (#2) mm in diameter; foliage leaf sheath summit extensions 0.2#0.5 mm long; 1,150#1,800 m.....*C. sellowii*
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60. Foliage leaf sheaths abaxially pubescent to pilose, the blades abaxially pubescent or with a basal tuft of hairs present; culm leaf girdles 2#7 mm long, hispid-scabrous
 *C. kleinii*
 60. Foliage leaf sheaths glabrous, hispid or with a patch of hairs near the apex, the blades abaxially usually pilose, sometimes glabrous, but with a basal tuft of hairs on both sides of the midrib; culm leaf girdles 1.5#3 mm long, glabrous or villous..... *C. urelytra*

REPRODUCTIVE + VEGETATIVE

61. Synflorescences 34#80 cm long; aerial branching absent; foliage leaf blades 50#66 × 3.5#3.7 cm; inner ligules with margin lacerate; known only from the Serra da Neblina, Amazonas, Brazil
 *C. diversiglumis*
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70. Synflorescences 4#5 cm long; glumes III and IV 2/3#3/4 the spikelet length; foliage leaf blades 9.5#11.5 cm long, L:W = 31#54.5..... *C. leptophylla*
71. Glume III extending ca. 1/3 and glume IV extending ca. 1/2 the spikelet length; foliage leaf blades 1.4#2.9 cm wide, L:W = 5.2#9.8, the inner ligules 7#30 mm long
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72. Spikelets (7#) 8#11 mm long; foliage leaf sheaths abaxially glabrous, sometimes pubescent or hispid toward the margins and the apex; internodes glaucous when young, a white waxy band below each node absent; culm leaf sheaths 0.8#2 times the length of the blade..... *C. meyeriana*
73. Glume III ca. 2/3 the spikelet length, both glumes III and IV dark purple with the fertile floret usually light green to stramineous, sometimes tinged with purple; ca. 2,000 m in upper Atlantic montane forest to high elevation grassland.....
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75. Glumes III and IV obtuse; synflorescences 1#1.5 cm long and wide; foliage leaf blades 0.8#1.6 cm wide, L:W = 4.5#10; from southeastern Minas Gerais and Espírito Santo to northeastern Rio Grande do Sul, 1,150#1,800 m..... *C. sellowii*
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78. Spikelets 8#10.2 mm long; glumes III and IV abaxially glabrous; lemma and palea subequal or more commonly the palea longer than the lemma; subsidiary branches 70#195 per node, horizontally oriented and appearing verticillate; foliage leaf blades with L:W = 14#27; Rio Grande do Sul, Santa Catarina and Paraná, 550#880 m..... *C. gracilis*
79. Lemma apex free; glumes III and IV subequal; foliage leaf sheaths deciduous from the lower nodes of the subsidiary branches; branching extravaginal; central bud triangular in outline, deltoid, central branch if developed ascending.....
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..... *C. mimosa* subsp. *mimosa*
80. Spikelets (5.5#) 6#7.5 mm long, 1.1#1.6 mm wide, the palea and fertile lemma subequal or more often the palea overtopping the fertile lemma; panicles 1#3 cm long, narrow or only the lower branches and pedicels reflexed; foliage leaf blades (0.2#) 0.4#0.7 cm wide, L:W = 10.6#23.7; smaller subsidiary branches 45#80 per node
..... *C. mimosa* subsp. *australis*
81. Synflorescences with primary and secondary branches; glumes III and IV acute; from Rio de Janeiro to Santa Catarina, 700#1,300 m..... *C. oligophylla*
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86. Spikelets 10.5#14 mm long; synflorescences 2#3.5 × 2#3 cm; foliage leaf blades 2.4#4.3 (#5.8) cm wide, L:W = 3#6..... *C. bahiana*
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96. Spikelets 8#10.2 mm long; glumes III and IV abaxially glabrous; lemma and palea subequal or more commonly the palea longer than the lemma; subsidiary branches 70#195 per node, horizontally oriented and appearing verticillate; foliage leaf blades with L:W = 14#27; Rio Grande do Sul, Santa Catarina and Paraná, 550#880 m..... *C. gracilis*
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99. Spikelets 4.3#4.9 mm long, glumes III and IV 2.8#3.2 mm long; foliage leaves (0.5#) 0.8#1 cm wide..... *C. windischii*
100. Spikelets 1.5#3 mm wide; central bud/branches flanked by slightly smaller subsidiary buds/branches, and subtended by 4#5 rows of medium to small sized subsidiary buds/branches; foliage leaves with inner ligules 0.2#0.5 (#1) mm long, truncate, and sheaths mottled..... *C. juergensii*
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..... *C. heterophylla*
104. Spikelets 4.7#5.5 mm long; synflorescences 1#1.5 cm long; foliage leaf blades 0.1#0.2 cm wide; subsidiary branches 1.5#4 cm long, 30#60 per node, the central branch usually not developing.....
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106. Spikelets 4.3#4.9 mm long; synflorescences 1.5#2 cm long; subsidiary branches 4#8 per node; foliage leaf sheaths glabrous to pubescent between the nerves; endemic to the Morro da Igreja, Santa Catarina.....
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108. Spikelets 5.5#7.3 mm long; glume III ca. $\frac{2}{3}$ the spikelet length, glume IV ca. $\frac{3}{4}$ the spikelet length, both awned; subsidiary branches 4#6 per node; foliage leaf sheaths pubescent between the nerves.....
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- Mota, A.C. 2013. Sistemática de *Chusquea* subgênero *Rettbergia* (Bambusoideae, Poaceae). Tese de Doutorado. Universidade Estadual de Feira de Santana, Feira de Santana.
- Vidal K.V.A. (2017). Estudos filogenéticos e taxonômicos em *Chusquea kunth* (Poaceae, Bambusoideae) do Brasil. Dissertação de mestrado, Universidade Estadual de Feira de Santana. 102 pp.

Chusquea acuminata Döll

Has as synonym

heterotypic *Chusquea tenuis* Glaz. ex E.G.Camus

DESCRIPTION

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** uniform; **branching** infravaginal and extravaginal on the same plant; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 7 veins/awned; **pale** 4 veins/2 mucronate.

ADDITIONAL DESCRIPTION

Rhizomes unknown, probably pachymorph. **Culms** 3-5 (-9) m long, erect at the base and arching toward the apex and scandent; internodes 10-19 cm long, 1-1.5 cm in diameter, terete to slightly flattened above the bud/branch complement, glabrous, white waxy band present below the node at least when young. **Culm leaves** 9.6-17 cm long, abaxially glabrous, juncture of sheath and blade abaxially a more or less horizontal or asymmetrical line; sheaths 5.7-10.3 cm long, (1.2-) 1.5-3.2 times as long as the blade, overlapping margin fused for 0.2-0.5 cm at the base, sheath summit extensions 1-1.5 mm long on the overlapping margin, 1-3 mm long on the underlapping margin; girdle 1-2.5 mm long, glabrous, a small corky ridge present at the juncture with the sheath; inner ligule 1.5-3 mm long; blades 2.8-6.3 cm long, triangular, non-pseudopetiolate, erect, caducous or deciduous, base narrower than the sheath apex and slightly rounded, apex flat, subulate. **Nodes** at mid-culm with one triangular central bud subtended by 40-60 smaller, subequal subsidiary buds in 2-3 constellate rows; nodal line dipping slightly below the bud/branch complement; supranodal ridge \pm a ridge. **Branching** initially infravaginal, but eventually becoming extravaginal; 80-140 subsidiary branches per node, these ca. 1 mm in diameter, spreading. **Foliage leaves** 4-5 per complement; sheaths persistent, glabrous, stramineous but often purple-tinged to green-spotted, summit extensions on both sides 0.3-0.5 mm long, bearing a tuft of cilia on one side; outer ligules ca. 0.2 mm long, ciliolate, the hairs extending along the juncture of the inner ligule and the sheath summit extension; inner ligules 0.3-0.7 mm long, \pm truncate to rounded, glabrous; pseudopetiole 0.5-1 mm long, shorter on the most proximal blades; blades 4-9.8 cm long, 0.25-0.45 cm wide, L:W = (13-) 17-33, linear to linear-lanceolate, not tessellate, green, adaxially glabrous, abaxially with a tuft of hairs at the base on both sides of the midrib, the hairs 0.5-1 mm long, otherwise glabrous, \pm firm, base \pm symmetrical and rounded on the most proximal blades, to asymmetrical on the more distal blades, with one side rounded-attenuate and the other attenuate, midrib visible abaxially for almost the full length, becoming excentric toward the apex, margins scabrid, the trichomes \pm irregularly spaced, the apex setose. **Synflorescences** 3-8.5 cm long, open paniculate, borne on leafy branches only, subtending spatheate bracts absent; rachis flattened to angular, edges scabrous; lowermost primary branch 2-3 cm long, \pm horizontal, scabrous-pubescent at the base, otherwise only the edges scabrous, primary branches separated by 0.5-1.5 cm, spreading to nearly horizontal, spikelets borne on the primary branches appressed to spreading, the terminal spikelet separated from the next lower spikelet by 0.5-1.5 cm; pedicels 2-7 mm long, angular, scabrid-pubescent. **Spikelets** (7.2-) 8-10 mm long, 1-1.5 mm wide, laterally compressed; glumes I and II scalelike, obtuse, glabrous, nerves absent; glume I 0.2-0.3 mm long, 1/30-1/40 the spikelet length; glume II 0.2-0.5 mm long, 1/15-1/20 the spikelet length; glumes III and IV usually brown to purple, sometimes coloration mainly toward the margins, awned, awns (0.4-) 1-1.5 mm long, scabrid, margins ciliolate near the apex, the midrib scabrid on the upper half, otherwise glabrous, 3-nerved; glume III (4.6-) 6.2-7.3 mm long including the awn, 3/5-3/4 the spikelet length; glume IV 6-8 mm long including the awn, 3/4-4/5 the spikelet length; lemma 7.4-9.4 mm long including the awn, awn 0.4-1.6 mm long, stramineous to pale green, sometimes purple-tinged, margins ciliolate toward the apex, awn scabrid, apex free, 7-nerved; palea 7.4-8.8 mm long, stramineous to pale green, bisubulate, 2-keeled, sulcate for more or less the upper half, sulcus scabrid, 4-nerved. **Flowers** not seen. **Fruit** not seen. **Habitat** in the transitional zone between upper montane Atlantic forest and high elevation grasslands at 1,950-2,425 m.

Life Form

Bamboo

Substrate

Terrestrial

DISTRIBUTION

Native, Is endemic from Brazil

Phytogeographic Domains

Atlantic Rainforest

Vegetation Types

High Altitude Grassland, Ombrophyllous Forest (Tropical Rain Forest)


Geographic DistributionConfirmed occurrences

Southeast (Minas Gerais, Rio de Janeiro)

HERBARIUM MATERIAL

Warming, J.E.B., s.n., C, **Typus**

T.R. Soderstrom, 1931, K (K001106328), Rio de Janeiro

Markgrat, 3665, RB, 39416,   (RB00613766), Rio de Janeiro

L.Clark, 635, RB, 406274,  (RB00613772), SJRP, Minas Gerais

E.J. Lucas, 553, K (K001106303), Rio de Janeiro

L.L. Giacomini, 948, RB,  (RB01191625), Rio de Janeiro

Brade, AK, 17305, IAN (IAN066679), Rio de Janeiro

A.F.M. Glaziou, 4310, IAN (IAN093549)

L. Clark, 805, SJRP,  (SJRP00012636), Rio de Janeiro

A.F.M. Glaziou, 9056, US, K, P, Rio de Janeiro, **Typus**

Clark, LG, 793, MBM (MBM194616), SJRP, Rio de Janeiro

A. Chase, 9691, US, Minas Gerais

P.L. Viana, 3251, BHCB, 115603, ISC, Minas Gerais

A.F.M. Glaziou, 4310, K,  (K000925277), Rio de Janeiro

Clark, LG, 805, MBM (MBM194615), Rio de Janeiro

Chusquea anelythra Nees

Has as synonym

homotype *Dendragrostis anelythra* Nees ex Munro

DESCRIPTION

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** wine-coloured/spot not uniform; **branching** infravaginal/extravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous/scabrous; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent/slightly differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous present/2; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** awned/apiculate; **apex of the glume 4** awned/apiculate; **lemma** 7 veins/pubescent/apex free/awned/apiculate; **palea** 4 veins/2 keeled/apex acute/pubescent.

ADDITIONAL DESCRIPTION

Rhizomes unknown. **Culms** 3-6 m tall, somewhat erect at the base and scandent to clambering toward the apex; internodes (11-) 13.5-16 (-20) cm long, terete, solid, scabrous becoming glabrous on the upper half, otherwise completely glabrous, with a white waxy band (1-2 cm wide) just below the node. **Culm leaves** (7.9-) 9.1-10.7 cm long, abaxially pubescent to hispid at the base with a tuft of trichomes in the middle, erect, persistent, juncture of sheath and blade abaxially a faint line or obscure; sheaths (6-) 7.2-8 cm long, 3-4 (-5) times as long as the blade, overlapping margin fused for 1.9-2.2 cm at the base, sheath summit extensions absent; girdle 2.5-5 mm long, abaxially pubescent to hispid, a skirt present at the juncture with the sheath; outer ligule reduced a discreet and slightly prominent line, otherwise absent; inner ligule 1-1.5 mm long, erect, rigid, glabrous with margins ciliate; blades 1.7-2.5 cm, broadly triangular, non-pseudopetiolate, erect, persistent, base wider than the sheath apex, adaxially glabrous at the base and pubescent to pilose toward the apex, abaxially scabrous, apex flat, long setose. **Nodes** at mid-culm with one circular central bud subtended by 8-10 one-size smaller subsidiary buds in 1 constellate rows; nodal line dipping slightly below the bud/branch complement; supranodal ridge visible. **Branching** initially infravaginal, but eventually becoming extravaginal; the central branch when developing \pm horizontally oriented, at least initially; 5-11 (-14) subsidiary branches per node, subequal, geniculate at the first node and prominent giving a knobby appearance, often rebranching. **Foliage leaves** 6-13 per complement; sheaths persistent, scabrous to hispid on the upper half, stramineous to brownish with green or vinaceous spots, keeled at the apex, summit extensions asymmetrical, hispid to hirsute, overlapping margin (0.2-) 0.4-1.2 mm long, that of the underlapping with a sheath summit extension margin 1.4-3 (-4) mm long; outer ligules cup-shaped, asymmetrical, one side 0.3-0.9 (-1.3) mm long and the other one (0.7-) 0.9-1.9 mm long, pubescent or scabrous, apically ciliate to long ciliate; inner ligules asymmetrical, overlapping margin 0.6-1.6 mm long and \pm truncate, underlapping margin 2-3.4 (-4.3) mm long and rounded-attenuate, pubescent to scabrous, ciliate at the apex; pseudopetioles 1-5 mm long, pulvinus dark brown; blades (6.5-) 7-18.5 (-20) cm long, 0.7-1.3 cm wide, L:W = 8-19.5 (-23), lanceolate to linear-lanceolate, not tessellate, green, adaxially pilose-scabrous at the base and glabrous toward the apex, otherwise completely scabrous, abaxially slightly scabrous with a tuft of trichomes at the base, base subcordate to asymmetrical, one side attenuate and the other subcordate to rounded-truncate, margins scabrous, the apex acute to long setose. **Synflorescences** (7.0-) 9.4-15.2 cm long, paniculate, open, pyramidal, borne on leafy branches only, subtended by 2 spatheate bracts; rachis triquetrous, densely pilose; the 1-5 lowermost branches reflexed; pedicels 1.5-3.5 mm long, angular, densely-pilose. **Spikelets** 6.6-9 mm long, 1.2-1.6 mm wide, globose to slightly dorsally compressed; glumes I and II scalelike, obtuse, nerves absent; glume I 0.1-0.3 mm long, 1/30-1/40 the spikelet length, slightly pubescent at the base and glabrous toward the apex; glume II 0.2-0.4 mm long, 1/20-1/25 the spikelet length, glabrous; glumes III and IV navicular for the upper half, usually green to purple-greenish, awned, glabrous at the base and pubescent to pilose toward the apex, margins ciliate near the apex, 3-nerved; glume III (3.6-) 4.2-6 mm long including the awn (0.3-1.3 mm long), 2/3 the spikelet length; glume IV 5-7 mm long including the awn [0.2-0.7 (-1.2) mm long], 3/4 to 4/5 the spikelet length; lemma 6.5-7.6 mm long including the awn (0.3-1.2 mm long), stramineous to purple-green, margins ciliate toward the apex, apex free, 7-nerved, glabrous at the base and pubescent toward the apex with a tuft of trichomes; palea 6.1-7.7 mm long, stramineous to pale green, 2-apiculate, 2-keeled, strongly sulcate only on the upper half, sulcus scabrid, 4-nerved. **Fruit** not seen. **Habitat** in the transitional zone between upper montane Atlantic forest and high elevation grasslands at 900-1500 m.

Life Form

Bamboo

Substrate

Terrestrial

DISTRIBUTION

Native, Is endemic from Brazil

Phytogeographic Domains

Atlantic Rainforest

Vegetation Types

High Altitude Grassland, Ombrophyllous Forest (Tropical Rain Forest), Rock outcrop vegetation

Geographic Distribution

Confirmed occurrences

Southeast (Espírito Santo, Minas Gerais, Rio de Janeiro)

Possible occurrences


Northeast (Bahia)

Southeast (São Paulo)


South (Paraná, Santa Catarina)

HERBARIUM MATERIAL

Clark, L.G., 655, SP

J.R. Pirani, 5739, SPF,  (SPF00202943), Minas Gerais

G. Martinelli, 11959, NY,  (NY01146197), Rio de Janeiro

A. Glaziou, 20152, K,  (K000947258)

F. Sellow, 1248, B, **Typus**

Glaziou, 17453, K,  (K000947256), Rio de Janeiro

F. Sellow, 1248, US,  (US00036597), **Typus**

G. Martinelli, 13435, RB, 408786,  (RB00613537), Rio de Janeiro

G. Martinelli, 11959, CEN (CEN00063243), Rio de Janeiro

L. Clark, 673, RB, 406263,  (RB00613535), Rio de Janeiro

G. Martinelli, 13435, RB, 408786,  (RB00613537), Rio de Janeiro

G. Martinelli S. de V.A. Pessoa C. Correia M. Gomes, 13435, HCF (HCF000028515), Rio de Janeiro

Kollmann, L., 8015, HUEFS (HUEFS0220960), Espírito Santo

G. Martinelli, 19886, RB,   (RB01316583), Rio de Janeiro

C. Baez, 822, RB,   (RB01181552), Rio de Janeiro

G. Martinelli, 11954, NY,  (NY01146196), Rio de Janeiro

G. Martinelli, 11954, NY,  (NY01018202), Rio de Janeiro

A. Glaziou, 18634, K,  (K000947259), Rio de Janeiro

Sellow, Friedrich, s.n., E,  (E00373678), **Typus**

L. Kollmann, 9948, MBML (MBML031190), Espírito Santo

L. Kollmann, 8015, MBML (MBML025092), Espírito Santo


L. Kollmann, 6639, MBML (MBML022518), Espírito Santo

P.L. Viana, 3635, RB, 485054,   (RB00569537), Espírito Santo

Mc. Clure, 21288, RB, 138415,   (RB00613932), Rio de Janeiro

F. Sellow, 1248, US,  (US00036596), **Typus**

Sellow, s.n., P (P00625465), **Typus**

G. Martinelli, 11959, RB, 251976,  (RB00613891), Rio de Janeiro

F.A. McClure, 21277A, K (K001106310), São Paulo

G. Martinelli, 11959, K (K001106333), Rio de Janeiro

J.G. Jardim, 5382, SPF,  (SPF00193944), Bahia

L.L. Giacomini, 904, RB,  (RB01191172), Rio de Janeiro

Chusquea anelytroides Rupr. ex Döll

DESCRIPTION

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** uniform; **branching** infravaginal and extravaginal on the same plant; **bud main** non developed/triangular/orientation vertical; **indumentum** glabrous/pubescent; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** oval-lanceolate; **leaf of the culm** persistent/not differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous present/4; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 7 veins/pilose/pubescent/apex free/awned/apex acute; **pale** 4 veins/2 keeled/apex acute/pilose/pubescent.

ADDITIONAL DESCRIPTION

Rhizomes unknown. **Culms** 3-5 m tall, somewhat erect at the base and arching to decumbent toward the apex; internodes 10-15 cm long, 0.5-2 cm in diameter, terete, solid, densely scabrous below the node and glabrous on the upper half, with a white waxy band (1-1.5 cm wide) just below the node. **Culm leaves** 9.7-13.2 cm long, abaxially glabrous to slightly scabrous, erect, persistent, juncture of sheath and blade abaxially a faint line or obscure; sheaths 9.5-10 cm long, 3-7 times as long as the blade, overlapping margin fused for 0.8-2 cm at the base, sheath summit extensions absent; girdle 1-6 mm long, abaxially glabrous, slight corky ridge present at the juncture with the sheath; outer ligule reduced a discrete and slightly prominent line, otherwise absent; inner ligule 0.5-1 mm long, erect, rigid, glabrous with margins ciliate; blades 1.3-3.2 cm, triangular to deltate, non-pseudopetiolate, erect, persistent, base wider than the sheath apex, adaxially glabrous at the base and pubescent to pilose toward the apex, abaxially glabrous, apex subulate to apiculate, flat. **Nodes** at mid-culm with one ± triangular central bud subtended by 5-10 smaller, subequal subsidiary buds in 1-2 constellate rows; nodal line horizontal but dipping slightly below the bud/branch complement; supranodal ridge visible. **Branching** initially infravaginal, but eventually becoming extravaginal; the central branch when developing ± vertically oriented, at least initially; 5-9 subsidiary branches per node, subequal, fairly robust, geniculate at the first node, sometimes rebranching. **Foliage leaves** 3-6 per complement; sheaths persistent, glabrous at the base, scabrous or sometimes hispid toward the apex, stramineous to brownish with green or vinaceous spots, keeled at the apex, summit extensions present and fused to inner ligule in both margins, sometimes asymmetrical, scabrid to hirsute, overlapping margin 2.0-4.6 mm long, underlapping margin 3-7 mm long; outer ligules bilobed, asymmetrical, one side 0.5-1.1 mm long, and the other one 1.2-3 mm long, glabrous, apically glabrous; inner ligules 7-20 (-30) mm long, attenuate, scabrous, glabrous at the apex; pseudopetioles 3-8 mm long, pulvinus dark brown; blades 10.5-18 cm long, 1.5-3 cm wide, L:W = 5.2-9.8, ovate-lanceolate to lanceolate, not tessellate, green, adaxially scabrous at the base and glabrous on the upper half, abaxially scabrous then glabrous toward the apex, with a tuft of trichomes at the base, base rounded-attenuate, slightly asymmetrical, margins scabrous, the apex acuminate to long setose. **Synflorescences** 11-15 cm long, paniculate, open, pyramidal, borne on leafy branches only, subtended by 4 spatheate bracts; rachis angular, scabrid to densely pilose; the 1-3 lowermost branches reflexed; pedicels 1.8-4 mm long, angular, densely-pilose to hispid. **Spikelets** 9.5-12 mm long, 1.8-2.1 mm wide, terete to slightly dorsally compressed; glumes I and II scalelike, obtuse, nerves absent, glabrous at the base and slightly scabrous toward the apex; glume I 0.1-0.2 mm long, 1/40-1/45 the spikelet length; glume II 0.1-0.3 mm long, 1/25-1/30 the spikelet length; glumes III and IV, otherwise only on the upper half, usually pale to purple-greenish, awned, margins ciliolate near the apex, 3-nerved; glume III 3.5-4.4 mm long including the awn (0.6-1.4 mm long), 1/3 the spikelet length, pubescent; glume IV 4.3-5.3 (-6) mm long including the awn (0.5-1 mm long), 1/2 the spikelet length, slightly pilose; lemma 8-10 mm long including the awn (0.5-1 mm long), stramineous to purple-green, margins ciliolate toward the apex, apex free, 7-nerved, pubescent at the base and pilose toward the apex with a tuft of trichomes; palea 8.4-10 mm long, stramineous to pale green, 2-apiculate to aristulate (0.1-0.4 mm long), 2-keeled, sulcate, sulcus scabrid, 4-nerved, pubescent to pilose toward the apex. **Fruit** not seen. **Habitat** in the transitional zone between upper montane Atlantic forest and high elevation grasslands, sometimes in open habitat at 700-1800 (-2000) m.

Life Form

Bamboo

Substrate

Terrestrial

DISTRIBUTION

Native, Is endemic from Brazil

Phytogeographic Domains

Atlantic Rainforest

Vegetation Types

High Altitude Grassland, Ombrophyllous Forest (Tropical Rain Forest)

Geographic Distribution

Confirmed occurrences

Southeast (Minas Gerais, Rio de Janeiro, São Paulo)

South (Paraná)

HERBARIUM MATERIAL

Clark, L.G., 796, SP



Lund, 1833, **Typus**

E.J. Lucas, 497, K (K001106313), Rio de Janeiro

E.J. Lucas, 707, K (K001106312), Minas Gerais

G. Heiden, 877, NY,  (NY01018645), Rio de Janeiro

Glaziou, 6442, K,  (K000947255), Rio de Janeiro

T. R. Soderstrom, 1933, CEPEC, ,  (CEPEC00012926), Rio de Janeiro

Glaziou, 17454, K,  (K000947257), Rio de Janeiro

Pilger, 22, RB, 26632,  (RB00613586), Rio de Janeiro

Riedel, 1633, LE, São Paulo, **Typus**

Mochochinski & Scheer, 198, MBM (MBM368991)

Chusquea attenuata (Döll) L.G. Clark

Has as synonym

basionym *Arundinaria attenuata* Döll

DESCRIPTION

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** intravaginal; **bud main** non developed/circular/orientation horizontal; **indumentum** glabrous; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/not differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous present/1/2; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** awned; **apex of the glume 4** awned/apiculate; **lemma** 3 veins/5 veins/pilose/apex free/awned/apex acute; **pale** 4 veins/2 keeled/apex acute/pilose/pubescent.

ADDITIONAL DESCRIPTION

Rhizomes pachymorph. **Culms** 1.5-4 (-9) m long, erect at the base and arching toward the apex and scandent; internodes 13-21 cm long, 0.5-1.2 cm in diameter, terete, glabrous and slightly scabrous at the supranodal region, glaucous, white waxy band below the node present when young, this wearing away with age. **Culm leaves** 5.8-16.5 cm long, abaxially scabrous, erect, persistent, juncture of sheath and blade absent or reduced to a slightly horizontal line; sheaths (3.9-) 4.9-14.5 cm long, (0.8-) 1.8-3.5 (-6) cm in diameter, (7-) 8-10 times as long as the blade, overlapping margin fused for (0.6-) 1-54.9 (-6) cm at the base, sheath summit extensions absent; girdle 1.4-2.5 mm long, scabrous, a skirt present at the juncture with the sheath; inner ligule (0.1-) 0.5-1.1 mm long, erect, glabrous with margins ciliate; blades (0.6-) 0.9-2.2 x 0.5-1.3 cm, triangular to deltate, non-pseudopetiolate, erect, persistent, base wider than the sheath apex, adaxially glabrous at the base and hispid toward the apex, unusually completely hispid, abaxially hispid to scabrous, apex acuminate to apiculate. **Nodes** at mid-culm with one circular central bud subtended by 11-36 smaller, subequal subsidiary buds in 1-2 constellate rows distributed in two lateral groups with a slight gap between them; nodal line dipping slightly below the bud/branch complement; supranodal ridge \pm a ridge. **Branching** initially infravaginal, but eventually becoming extravaginal; the central branch when developed initially more or less horizontally oriented; (6-) 13-41 (-52) subsidiary branches per node, subequal, geniculate and ascending to verticillate. **Foliage leaves** 4-9 (-11) per complement; sheaths persistent, hispid, stramineous, keeled at the apex, summit extensions asymmetrical, overlapping margin with a sheath summit extension 0.1-0.5 mm long, that of the underlapping margin 0.6-1.0 mm long, bearing a tuft of cilia on both sides; outer ligules cup-shaped, asymmetrical, one side 0.2-0.3 mm long and the other one 0.5-0.7 mm long, glabrous; inner ligules asymmetrical, overlapping side 0.2-0.6 (0.75) mm long and \pm truncate, underlapping side 0.5-0.9 mm long and rounded-attenuate, glabrous and ciliate at the apex; pseudopetioles 0.6-1.4 mm long; blades (4.3-) 6.2-12.7 cm long, (0.2-) 0.4-0.9 cm wide, L:W = (13-) 14-20 (-21.5), linear-lanceolate, not tessellate, green, adaxially pilose, unusually scabrous to glabrescent, abaxially scabrous with a tuft of hairs at the base on both sides of the midrib, base rounded-attenuate, margins scabrid, the apex setose to long-setose. **Synflorescences** (2.9-) 3.5-7.2 cm long, 1.2-3.2 (-3.9) cm wide, open paniculate, borne on leafy branches only, subtended by 1-2 spatheate bracts; rachis flattened to angular, edges pilose; the 2-4 lowermost branches reflexed; pedicels (0.8-) 1.3-2.1 mm long, angular, scabrid-pilose. **Spikelets** 6.1-8.2 mm long, 0.9-1.5 mm wide, slightly laterally compressed; glumes I and II scalelike, obtuse, glabrous, nerves absent; glume I 0.2-0.3 mm long, 1/30-1/40 the spikelet length; glume II 0.25-0.4 mm long, 1/20-1/25 the spikelet length; glumes III and IV usually brown to purple-greenish, awned, pubescent to pilose, margins ciliolate near the apex, 3-nerved; glume III 4.6-5.7 mm long including the awn (0.5-1 mm long), 2/3- 3/4 the spikelet length; glume IV 5.4-6.8 mm long including the awn [(0.25) 0.8-1.1 mm long], 3/4-4/5 the spikelet length; lemma 5.2-7.8 mm long including the awn, awn 1-2 mm long, stramineous to pale green, margins ciliolate toward the apex, apex free, 3-5-nerved, glabrous at the base and pilose toward the apex; palea 5-6.6 mm long including the awn, stramineous to pale green, 2-awned [(0.2-) 0.8-0.9 mm] to apiculate, 2-keeled, sulcate, sulcus scabrid, 4-nerved. **Fruit** not seen. **Habitat** in the transitional zone between upper montane Atlantic forest and high elevation grasslands at 1,200-1,650 (-1,900) m.s.a.l.

Life Form

Bamboo

Substrate

Terrestrial

DISTRIBUTION

Native, Is endemic from Brazil

Phytogeographic Domains

Atlantic Rainforest

Vegetation Types

High Altitude Grassland, Highland Rocky Field, Cerrado (lato sensu), Riverine Forest and/or Gallery Forest, Ombrophyllous Forest (Tropical Rain Forest)

Geographic DistributionConfirmed occurrences


Northeast (Bahia)


Southeast (Minas Gerais, Rio de Janeiro, São Paulo)

HERBARIUM MATERIAL

Kuhlmann, M., 2740, NY,  (NY00685218)

Alves, R.J.V., 6424, R,  (R010033431), Minas Gerais


L. Clark, 711, SJRP,  (SJRP00012619), Minas Gerais

L. Clark, 711, RB, 376344,  (RB00613774), Minas Gerais

L. Clark, 779, SJRP,  (SJRP00012796), Minas Gerais

L. Clark, 668, SJRP,  (SJRP00012825), Rio de Janeiro

Silva, C., 553, HUEFS (HUEFS0181729), Minas Gerais

L. Clark, 765, SJRP,  (SJRP00012803), Minas Gerais

L. Riedel, s.n., LE, **Typus**

Viana, PL, 2451, SPF,  (SPF00179189), Minas Gerais

Ceccantini, GCT, 3499, SPF,  (SPF00206335), Minas Gerais

Viana, PL, 2519, SPF,  (SPF00179191), Minas Gerais

L. Clark, 714, SJRP,  (SJRP00012790), São Paulo

Chusquea baculifera Silveira

DESCRIPTION

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** short subulate; **apex of the glume 4** short subulate; **lemma** 7 veins/9 veins/apex free/awned/apiculate; **pale** 4 veins/weakly 2 keeled/2 mucronate/scabrous.

ADDITIONAL DESCRIPTION

Rhizomes pachymorph, short-necked. **Culms** 2-3 m tall, more or less erect with mature culms slightly inclined; internodes 4-11.6 cm long, to 1 cm in diameter, terete, glabrous, waxy, white waxy band below the nodal line absent. **Culm leaves** 7.8-17 cm long, deciduous; sheaths 5-12.4 cm long, 1.4-2.7 times as long as the blade, more or less triangular, abaxially glabrous, margins glabrous or ciliate; girdle 0.1-0.5 mm wide, glabrous; inner ligule 1-2 mm long, slightly irregular, ciliate; blades 1.7-6.8 cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially scabrid and abaxially glabrous at the base becoming strigillose towards the apex, or completely glabrous, the apex flat, subulate. **Nodes** at mid-culm with a triangular central bud linearly subtended by 7-18 subsidiary buds; nodal line more or less horizontal; supranodal ridge slightly swollen. **Branching** intravaginal; central branch 20-67 cm long, erect to divergent, away from main culm, rebranching; 7-18 subsidiary branches per node, 6-16 cm long, erect to ascending, occasionally rebranching from the base. **Foliage leaves** 10-13 per complement; sheaths persistent, glabrous to softly pubescent toward the apex, nerves slightly prominent; outer ligule 0.2-0.3 mm long, glabrous or ciliate, somewhat irregular; inner ligule 0.2-0.5 mm long, truncate to rounded, abaxially pubescent; pseudopetiole 0.2-0.5 mm long, distinct; blades 2.7-4.5 cm long and 0.3-0.5 cm wide on vegetative branches, 3.5-6 cm long and 0.3-0.7 cm wide on reproductive branches, L:W = 5-11.2, lanceolate, not tessellate, green, adaxially and abaxially glabrous, base truncate-rounded, margins scabrous, the apex subulate. **Synflorescences** 2-6 cm long, 0.5-1.5 cm wide, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis, angular, scabrous-pubescent; branches angular, scabrid to pubescent, 1 cm long, appressed; pedicels angular, scabrid, 1-7 mm long. **Spikelets** 6.2-9.2 mm long, more or less terete to slightly dorsally compressed.; glume I 0.1-0.3 mm long, < 1/25 the spikelet length, scalelike; glume II 0.2-0.3 (0.6) mm long, < 1/15 the spikelet length, scalelike; glumes III and IV awned; glume III 3.1-5.8 long including the awn, 1/2-3/5 the length of the spikelet, awn 0.9-1.2 mm long, 1-3-nerved; glume VI 4-5.6 mm long including the awn, 1/2-3/4 the length of the spikelet, awn 0.7-1.3 mm long, 3-5-nerved; lemmas 6-9.2 mm long including the awn, awn 0.5-1 mm long, apex free, 7-9-nerved; paleas 6-9.1 mm long, subequal to the fertile lemma, bimucronate, 4-nerved, 2-keeled, sulcate on the upper 2/3, or less. **Lodicules** 3; otherwise unknown. **Stamens** 3; anthers 3 mm long, yellow. **Fruit** unknown. **Habitat** above timberline on rocky, open slopes in high elevation grassland at 2,000-2,800 m.

Life Form

Bamboo

Substrate

Terrestrial

DISTRIBUTION

Native, Is endemic from Brazil

Phytogeographic Domains

Atlantic Rainforest

Vegetation Types




High Altitude Grassland

Geographic Distribution

Confirmed occurrences

Southeast (Espírito Santo, Minas Gerais)

HERBARIUM MATERIAL

Silveira, A.A. da, 600, R, Minas Gerais, **Typus**
Souza, V.C., 38132, ESA (ESA129581), Minas Gerais
Assis, A.M., 848, VIES (VIES022309), Minas Gerais
Manhães, V.C., 401, VIES (VIES035316), Minas Gerais
Tinti, B.V. et al., 346, HUEMG (HUEMG003773), Espírito Santo
L.S. Leoni, 3437, RB,  (RB01166043), Minas Gerais
A.C. Brade, 17009, NY,  (NY00861901), Minas Gerais
M. A. Chase, 10088, NY,  (NY00651017), Espírito Santo
L. Clark & M. Morel, 702, SJRP, RB, BHCB, Minas Gerais

REFERENCE

Clark, L.G. 1992. *Chusquea* subg. *Swallenochloa* (Poaceae: Bambusoideae) and allies in Brazil. *Brittonia* 44(4): 387-422.

Chusquea bahiana L.G.Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** infravaginal; **bud main** circular; **indumentum** scabrous; **wax below of the node** present. **Leaf: form of the leaf of the shoot** lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** lanceolate. **Inflorescence: synflorescence** paniculate/capitate; **bract(s)** spathaceous present/1/2; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** apex connate; **palea** 2 veins/apex obtuse.

DESCRIPCIÓN ADICIONAL

Culms 5–10 m long, scandent and hanging; internodes 27–40 cm long, 1–1.75 cm in diameter, appressed-hispid just below the node, retrorsely scabrous on the upper 1/3 (where not covered by the culm leaves), white waxy band absent. **Culm leaves** 17–32 cm long; sheaths 14–26 cm long, 3–5.6 times as long as the blade, abaxially retrorsely scabrous, becoming scabrid toward the base, the prickles stout, the midrib slightly raised and more prominent than the other nerves, visible on the upper 1/2 to nearly the full length of the sheath, continuous with the midrib of the blade, the overlapping margin ciliate for about the upper 1/2 to nearly its full length, the other margin not seen; girdle 2–7 mm long, glabrous, dark brown to black, often thickened at the juncture with the sheath; inner ligule ca. 0.5 mm long, rounded, glabrous; blades (3–) 4–7 (–8.5) cm long (tips often broken), narrowly triangular, non-pseudopetiolate, abaxially retrorsely scabrous to scabrid but the prickles sparse, adaxially not seen, the midrib slightly raised and visible for the full length, apex flat, tapering, shortly subulate, the margins glabrous, often slightly revolute. **Nodes** at mid-culm with the central bud subtended by 4–7 smaller subsidiary buds in one constellate row; nodal line dipping markedly below the bud/branch complement; supranodal ridge swollen, prominent. **Branching** infravaginal; the central branch developing horizontally at first, usually becoming geniculate, nearly as robust as the main culm; leafy subsidiary branches (5–) 9–11 per node, 20–56 cm long, 2–3 mm in diameter, sometimes rebranching from the nodes in the lower 1/3 (especially in flowering specimens), the girdles at the lower nodes usually dark purple to black, glabrous. **Foliage leaves** 4–8 per complement; sheaths persistent, striate, keeled toward the apex, glabrous, uniformly green to straw-colored, the margins glabrous, sheath summit extension 2–2.5 mm; outer ligule 0.5–0.7 mm long, unlobed, erect, extending as a mere rim along the junction of the sheath summit extension and the inner ligule often for the full length, glabrous; inner ligule 2–3 (–4.5) mm long, rounded, abaxially scabrid; pseudopetiole 2–5 (–8) mm long, glabrous, pulvinate at the base, often dark purple; blades (8.4–) 9–21 (–28.6) cm long, 2.4–4.3 (–5.8) cm wide, L:W 3–6, ovate-lanceolate, glabrous, adaxially not tessellate to weakly so, green to light green, abaxially weakly tessellate, basal tuft of hairs absent, lighter green, the base asymmetrical, one side rounded, the other rounded-attenuate, the midrib slightly excentric (1.1–1.4), abaxially slightly raised and visible for nearly the full length, adaxially barely distinguishable or only distinguishable for the lower half, the margins scabrid, one often nearly glabrous, the apex tapering, acuminate, shortly subulate. **Synflorescences** 2–3.5 cm long, 2–3 cm wide, capitate paniculate, the base usually retained within the (1–) 2 subtending spatheate bracts, borne on leafy branches only, bract I (lower or only) with the sheaths 1.6–3.4 cm long, not expanded, the blades 2.2–5.5 cm long, green and arching over the synflorescence, bract II (upper) with the sheaths 1.5–2.6 cm long, expanded, appressed to the synflorescence, the blades 0.5–1.7 cm long, green; main axis more or less flattened to triquetrous, straight, glabrous; branches reduced, the longest to 0.5 cm long, angular, glabrous, the lowermost subtended by a usually bladeless bract ca. 1.8 cm long, bracts subtending the other branches minute, to 0.5 mm long; pedicels 2–3 (–4) mm long, angular, glabrous. **Spikelets** 10.5–14 mm long including the awns, the body 8–9.5 mm long, moderately laterally compressed; glumes I and II awned, keeled, abaxially scabrous except on the body margins, the body attenuate, awns antrorsely scabrous; glume I 10–14 mm long including the awn, 1–1.5 times the length of the lemma, 1-, 3- or 5-nerved, the body 3–5 mm long, the awn 6–10 mm long; glume II 10.4–12 mm long including the awn, 1.1–1.3 times the length of the lemma, 3- or 5-nerved, the body 4–5 mm long, the awn 6.4–8 mm long; glumes III and IV \pm navicular, 5- or 7-nerved; glume III 9.5–11.4 mm long including the tip, 1.1–1.3 times the length of the lemma, subulate to awn-tipped, abaxially scabrid-pubescent on the upper 1/3–1/2, adaxially glabrous, the tip 1–1.9 mm long; glume IV 8.6–9.4 mm long, 1–1.1 times the length of the lemma, mucronate, abaxially scabrid on the upper 1/2, adaxially glabrous; lemma 7.7–8.9 mm long, \pm navicular, mucronate, abaxially scabrid toward the apex, 7- or 9-nerved, the margins slightly connate at the apex; palea 7–8.8 mm long, subequal to the lemma, bimucronulate, abaxially scabrid at the apex and between the central two nerves, 4-nerved, 2-keeled, sulcate only near the apex, sulcus scabrid. **Lodicules** 3, apically ciliate; the anterior pair 1.6–2 mm long, the posterior one ca. 1 mm long. **Anthers** 4–5 mm long. **Fruit** a basic caryopsis, not observed in mature condition. **Habitat** in Atlantic forest at 350–600 m.

Life Form

Bamboo

Substrate

Terrestrial

DISTRIBUTION

Native, Is endemic from Brazil

Phytogeographic Domains

Atlantic Rainforest


Vegetation Types

Ombrophyllous Forest (Tropical Rain Forest)

Geographic DistributionConfirmed occurrences

Northeast (Alagoas, Bahia)

Southeast (Minas Gerais)

HERBARIUM MATERIALA.M. Carvalho, 4386, CEPEC,  (NY00074129), Bahia, **Typus**

Calderón, C.E., 2460, ISC, SP, Bahia

Thomas et al., 12427, CEPEC, Alagoas

A. Mota et al., 294, HUEFS, Bahia

Santos & Silva, 3138, CEPEC, Bahia

C.E. Calderon & R.S. Pinheiro, 2258, US, Bahia

Calderon et al., 2375, US, IPA, SP, Bahia

A.P. Santos-Gonçalves & Urdampilleta, 589, UEC, Bahia

Viana et al., 2206, SP, Minas Gerais

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Mota, A.C. 2013. Sistemática de *Chusquea* subgênero *Rettbergia* (Bambusoideae, Poaceae). Tese de Doutorado. Universidade Estadual de Feira de Santana, Feira de Santana.

Chusquea bambusoides (Raddi) Hack.

Este tratamiento consta de los siguientes taxones: *Chusquea bambusoides*, .

Tiene como sinónimo

basiónimo *Rettbergia bambusoides* Raddi

homotípico *Rettbergia bambusaeoides* Raddi

heterotípica *Chusquea bambusoides* var. *minor* McClure & L.B.Sm.

heterotípica *Chusquea gaudichaudii* Kunth

heterotípica *Nastus brunneus* Desv.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** circular/orientation horizontal; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** form of the leaf of the shoot lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** lanceolate. **Inflorescence:** **synflorescence** paniculate; **bract(s)** spathaceous present; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** mucicous; **apex of the glume 4** mucicous; **lemma** scabrous/apex connate; **pale** 2 veins/apex obtuse.

DESCRIPCIÓN ADICIONAL

Culms 2–10 m long, scandent; internodes 16–37 cm long, 0.7–1 cm in diameter, glabrous to scabrid on the upper half, white waxy band absent. **Culm leaves** (in the few complete specimens) 22–32 cm long; sheaths 17.5–25.6 cm long, 4–5 times as long as the blade, abaxially strongly retrorsely scabrous on the upper half, the midrib visible abaxially toward the apex, one margin ciliate toward the apex, the other densely ciliate for the upper two-thirds; girdle 2–3 mm long, glabrous, brown; inner ligule ca. 0.5 mm long, slightly convex, ciliolate; blades 5.1–6.3 cm long, narrowly triangular, adaxially antrorsely scabrous-pubescent, abaxially glabrous, midrib abaxially indistinct at the base, becoming prominent and forming a keel toward the apex, apex flat, subulate. **Nodes** at mid-culm with the central bud subtended by 4–7 smaller subsidiary buds in one constellate row; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible but not prominent. **Branching** with the central branch when developed as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches (4) 5–12 per node, 18–35 cm long, 1.5–2.5 mm in diameter, often rebranching from the ± prominent basal nodes, girdles the same color as the sheaths to purple, pubescent to less commonly glabrous or scabrous. **Foliage leaves** 4–8 (–11) per complement; sheaths persistent, indistinctly striate, keeled especially toward the apex, glabrous, often slightly mottled, the overlapping margin ciliate, summit extension 1–2 mm and usually lacking cilia; outer ligule 0.4–1 mm long, often bilobed and reflexed, extending to the margins along the juncture with the inner ligule, glabrous; inner ligule 1–3 mm long, usually rounded, usually ciliolate, glabrous to pubescent; pseudopetiole 2–3 mm long, glabrous, the pulvinus often inconspicuous, brown-purple to dark purple, otherwise green, or the whole pseudopetiole uniformly green; blades 8–19.4 cm long, (0.8–) 1.5–3 cm wide, L:W 4–11.4, lanceolate to ovate-lanceolate, not tessellate or abaxially weakly so, green, adaxially and abaxially glabrous, abaxial tuft of hairs absent, the base rounded-attenuate, often slightly asymmetrical, the midrib slightly excentric to excentric [1.2–1.5(–2.3)], abaxially yellowish and prominent for nearly the full length, the margins glabrous toward the base, becoming scabrous toward the apex, the apex acuminate. **Synflorescences** 4–8 (–9) cm long, 2–4 (–5) cm wide, open paniculate, usually fully exerted from the subtending leaf, borne on leafy branches only, spatheate bract usually absent, when present, sheaths 1–1.7 cm long, blades 0.3–1.3 cm long, green; main axis somewhat flattened to angular, straight, glabrous; branches 1–2.5 cm long at the base, angular, glabrous, usually basally pulvinate and spreading, subtended by small bracts, those subtending the first one or two branches (0.5–) 2.7–11.5 mm long, narrowly triangular, attenuate, rarely the first subtending bract spathe-like, those subtending higher branches minute, < 0.5 mm long, bracts often lacking toward the apex; pedicels 1.5–4 mm long, angular, glabrous, usually basally pulvinate and spreading, often subtended by minute bracts. **Spikelets** (7.7–) 8.5–10.8 mm long, moderately laterally compressed; glumes I and II awned, keeled, abaxially pilose toward the apex and on the awn, awns scabrous to hispid, occasionally stiffly pilose; glume I 1.8–4.5 mm long, ca. 1/5 the spikelet length, 1-, 3- or 5-nerved, the awn 0.8–1.5 mm long; glume II 2.3–5 mm long, ca. 1/3 the spikelet length, awned, abaxially pilose toward the apex and on the awn, 3- or 5-nerved, the awn 1–2 mm long; glumes III and IV obtuse, abaxially scabrid on the upper 1/2; glume III 4.7–7 mm long, 1/2–2/3 the spikelet length, 5- or 7-nerved; glume IV 6.6–8.6 mm long, ca. 4/5 the spikelet length, 5-nerved; lemma 7–10 mm long, obtuse, ± navicular but rounded on the back, abaxially scabrid toward the apex, 7- or 9-nerved, the margins fused at the apex; palea 6.8–10 mm long, ± equaling the lemma, obtuse, abaxially scabrid toward the apex, 6- or 8-nerved, sulcate only toward the apex, the sulcus abaxially scabrous. **Lodicules** 3, apically ciliate; anterior pair 2–3.2 mm long, the posterior one 2–2.4 mm long. **Anthers** 4.5–7 mm long. **Fruits** not seen. **Habitat** in Atlantic forest, disturbed Atlantic forest and secondary vegetation at 0–1,000 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Selva Ombrófila

















Distribución GeográficaOcurrencias confirmadas

Nordeste (Bahia)

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sur (Paraná, Rio Grande del Sul, Santa Catarina)

MATERIAL TESTIMONIO

Hatschbach, G, 20104, MBM (MBM009505), Paraná
 J.Nadaline, 5, RB,  (RB01427869), Paraná
 T. R. Soderstrom, 1937, CEPEC (CEPEC00012874), Rio de Janeiro
 F.O. Zuloaga, 2453, RB, 270903, ,  (RB00613931), Espírito Santo
 T.R. Soderstrom, 1177, P (P02643102), Rio de Janeiro
 L.J.T. Cardoso, 384, CEN (CEN00098960), Rio de Janeiro
 Clark, L.G. & M. Morel, 821, SJRP, SP, São Paulo
 Lopes, M. M. M., 1556, CEPEC (CEPEC00121817), Bahia
 A.M. Amorim, 3562, CEPEC (CEPEC00095995), Bahia
 D. Sucre, 7370, P (P02356776), Rio de Janeiro
 Funez, L.A., 1776, FURB (FURB39559), Santa Catarina
 Jorge Pedro Pereira Carauta, 5362, CEN (CEN00084085), Rio de Janeiro
 L.C.S. Giordano, 808, RB, 282728, , ,  (RB00613939), Rio de Janeiro
 W.W. Thomas, 12121, NY,  (NY00585665), Bahia
 T. R. Soderstrom, 1176, NY,  (NY01048959), Rio de Janeiro
 R.A.X. Borges, 282, CEPEC (CEPEC00114782), Bahia
 Gasper, A.L. de, 3718, FURB (FURB47541), Santa Catarina
 Gasper, A.L. de, 3718, RB,  (RB01386006), Santa Catarina
 F.O Zuloaga, 2435, RB, 270914, ,  (RB00613944), Espírito Santo
 Thomas R. Soderstrom, 1846, RB, 247114, ,  (RB00613981), Rio de Janeiro
 s.c., s.n., P (P00625481), **Typus**
 L.S. Sarahyba, 1141, RB, 401008, ,  (RB00443556), Rio de Janeiro
 Luciano de Bem Bianchetti, 1278, CEN (CEN00044692), Rio de Janeiro
 Oliveira, R. P., 1241, CEPEC (CEPEC00116671), Bahia
 Cervi, A.C., 8376, UPCB (UPCB0037597), Paraná
 Marinho, L.C., 847, CEPEC,  (CEPEC00141431), Bahia

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Chusquea bradei L.G.Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** circular/orientation horizontal; **indumentum** pilose/hispid below node; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** lanceolate. **Inflorescence:** **synflorescence** capituliform; **bract(s)** spathaceous present; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** awned; **apex of the glume 4** muticous; **lemma** 7 veins/pilose/scabrous/apex connate; **palea** 2 veins/apex obtuse.

DESCRIPCIÓN ADICIONAL

Culms 2–6 m long, scandent; internodes ca. 15 cm long, 0.2–1 cm in diameter, densely pilose-hispid directly below the nodes, each pilose on the upper 1/3, the lower 2/3 either glabrous or covered with scattered appressed hairs for nearly the full length, white waxy band absent. **Culm leaves** (13.5–) 21.7–32.5 cm long; sheaths (9.8–) 14–18 cm long, 1.1–1.8 (–3.5) times as long as the blade (using estimated blade lengths), abaxially retrorsely scabrous with stout prickles, also hispid on the lower 1/3–2/3, the midrib sometimes slightly raised, distinguishable for most of the length except at the base, continuous with the midrib of the blade, the overlapping margin glabrous or ciliate for nearly the full length, the other margin glabrous or ciliate at least near apex; girdles 0.2–0.5 cm long, pubescent-hispid, brown; inner ligules 0.5–1 mm long, slightly convex to ± irregular, glabrous; blades (2.8–) 7.7–14.5 cm long (tips usually broken), narrowly triangular, adaxially glabrous to scabrid, abaxially retrorsely scabrous, the prickles stout, the midrib slightly raised and visible for most of the length, apex flat, (probably) acuminate, sparsely ciliate. **Nodes** at mid-culm with the central bud subtended by 12–15 smaller subsidiary buds in two constellate rows; nodal line dipping markedly below the bud/branch complement; supranodal ridge swollen, more or less prominent. **Branching** infravaginal; the central branch developing tardily or not at all, ± equaling the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches 12–25 per node, (9–) 19–33 cm long, 1 mm in diameter, the lower tier geniculate downward, the upper tier geniculate upward, rarely rebranching at the lower nodes, girdles at the lower nodes brown to black, sparsely to densely pilose-hispid. **Foliage leaves** 5–11 per complement; sheaths persistent, striate, keeled toward the apex, glabrous with a tuft of hairs at the apex on both sides or completely pilose-pubescent, uniform in color, the overlapping margin glabrous to sparsely ciliate, sheath summit extension 0.5–1 mm on each side; outer ligules 0.3–0.5 mm long, bilobed, erect to spreading, extending along the juncture of the sheath summit and the inner ligule as a minute rim, glabrous or pubescent and ciliate; inner ligules 1–1.5 mm long, rounded to asymmetrical at the apex, pubescent; pseudopetioles ca. 2 mm long, abaxially pilose-pubescent, adaxially pilose-pubescent or sparsely pilose, the base pulvinate, one margin usually thickened and ciliate, black at the base, otherwise yellowish to olive-green; blades (5.9–) 7.5–12 cm long, 0.7–1.2 cm wide, L:W 8–11.4, lanceolate, not tessellate, olive-green, abaxially and adaxially pilose or both sides glabrous, a basal, abaxial tuft of hairs near the midrib present on both sides of the midrib, extending for several mm along the midrib above the pseudopetiole, the base rounded-attenuate, slightly asymmetrical, the midrib slightly excentric (1.1–1.2), the margins always ciliate toward the apex, otherwise glabrous or ciliate, the cilia 0.5–0.7 mm long, the apex attenuate. **Synflorescences** 1.5–2 cm in diameter, capitate paniculate, the base retained within the subtending spatheate bracts, borne on leafy branches only, subtended by 1 or more usually 2 spatheate bracts, bract I (lower) with sheaths 1.1–1.5 cm long, expanded, blades 0.7–1.4 (–3) cm long, green, spathe II (upper) with sheaths 1–1.2 cm long, expanded, blades absent to 0.9 cm long, brown; main axis angular, straight, hispid-pubescent; branches very reduced, the lowermost branch subtended by a bract to 0.9 cm long, this occasionally with a blade to 0.5 cm long, higher bracts ca. 1 mm long; pedicels ca. 0.5 mm long, angular, pubescent, subtended by bracts ca. 1 mm long. **Spikelets** 7.9–9 (–11) mm long including the awns, body length slightly shorter, more or less laterally compressed; glumes I and II awned, keeled, abaxially pilose except near the margins, 3-nerved, the body attenuate, awns scabrous-hispid; glume I 7.4–9.1 mm long including the awn, 1–1.5 times the length of the lemma, the awn 3.9–5.1 mm long; glume II 7.6–8.6 mm long including the awn, 1–1.5 times the length of the lemma, the awn 4.1–5.1 mm long; glumes III and IV more or less equal to the length of the lemma, abaxially scabrous-pilose on the upper 1/2, 5-nerved; glume III 7.5–8.8 mm long including the awn, subulate-awned, the awn 1.5–3 mm long; glume IV 6.7–8.1 mm long, subulate, 5-nerved; lemma 7.4–7.7 mm long, shortly subulate, connate at the apex, abaxially scabrous- or hispid-pilose on the upper 1/2, 7-nerved; palea 6.4–6.7 mm long, shorter than the lemma, bimucronulate, abaxially glabrous, 6-nerved, sulcate only near the apex, sulcus scabrid. **Lodicules** 3, apically ciliate; the anterior pair ca. 2.2 mm long, the posterior one 2 mm long. **Anthers** 4–4.5 mm long. **Fruits** not seen. **Habitat** in Atlantic forest at 600–900 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Selva Ombrófila

Distribución GeográficaOcurrencias confirmadas

Nordeste (Bahia)

Sudeste (Espírito Santo, Minas Gerais)

MATERIAL TESTIMONIOA.M. Carvalho, 4377, SP, RB, CEPEC, SP,  (NY00650954), BahiaA.C. Brade, 19181, RB, Espírito Santo, **Typus**

A. Mota, 222, HUEFS, Bahia

A. Mota, 256, HUEFS, Bahia

Santos et al., 4167, K, CEPEC, Bahia

Boone, 715, RB, MBML, Espírito Santo

L. Clark et al., 688, SP, SJRP, RB, MBML, Espírito Santo

Lombardi & Temponi, 1121, ISC, Espírito Santo

A.P. Santos-Gonçalves et al., 498, UEC, Espírito Santo

Thomas et al., 13650, CEPEC, Minas Gerais

Ferreira, F. M., 1670, CEPEC (CEPEC00121535), Bahia

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Chusquea caparaoensis L.G.Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** extravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** short subulate; **apex of the glume 4** short subulate/subulate; **lemma** 7 veins/9 veins/apex free; **palea** 4 veins/weakly 2 keeled/2 mucronate.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 4.5-6 m tall, more or less erect with mature culms arching at the apex; internodes (10-) 12-16 (-21.5) cm long, 1.5-3.5 cm in diameter, terete, glabrous, waxy, band of white wax below the nodal line absent. **Culm leaves** (12.4-) 14.5-22 cm long, deciduous; sheaths 10-16 cm long, 2.8-5.4 (-7) times as long as the blade, more or less rectangular, abaxially retrorsely scabrous to papillose, margins ciliate near the apex and glabrous elsewhere; girdle 0.5-2 mm wide, glabrous; inner ligule 2-3 mm long, erose, ciliolate; blades (1.6-) 3-4.2 (-5.7) cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially strigillose to strigose, at the base and the apex, sparsely strigillose or glabrous in the middle, abaxially strigose, the apex mucronate. **Nodes** at mid-culm with a triangular central bud subtended by (8-) 15-19 subsidiary buds, in 1-2 rows; nodal line more or less horizontal or dipping slightly below the bud/branch complement; supranodal ridge slightly swollen. **Branching** modified extravaginal; central branch 68-86 cm long, ascending or ascending and nodding from the middle, rebranching; 11-34 subsidiary branches per node, 18-68 cm long, ascending, nodding or horizontally disposed, rebranching. **Foliage leaves** (5-) 8-11 per complement; sheaths deciduous, strigillose, nerves prominent; outer ligule ca. 0.1 mm long, glabrous; inner ligule ca. 0.5 mm long, truncate to slightly rounded, abaxially glabrous; pseudopetiole 0.5-0.8 (-1) mm long, distinct; blades (4.5-) 5.6-6.8 cm long and 0.18-0.25 cm wide on vegetative branches, L:W = (22.5-) 25.6-33, (3-) 3.5-4.5 (-5) cm long and (0.15-) 0.2-0.27 cm wide on reproductive branches, L:W = 15-20 (-23.6), linear-lanceolate, not tessellate, green, adaxially glabrous or scaberulous over some veins, abaxially glabrous, base attenuate, margins scabrous, the apex subulate. **Synflorescences** (2-) 2.7-5.2 cm long, 1.2-1.6 cm wide, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis and branches angular, scaberulous; branches 1-2.4 cm long, appressed; pedicels (1.1-) 2-4.9 mm long, angular, scaberulous. **Spikelets** (6-) 7-8.2 (-9) mm long, more or less terete; glumes I and II scalelike, abaxially glabrous; glume I 0.1-0.3 mm long, less than 1/30 (-1/20) the spikelet length; glume II 0.3-0.4 (-0.5) mm long, 1/25-1/15 the spikelet length; glumes III and IV abaxially sparsely scaberulous near and along the midvein or completely glabrous, slightly keeled; glume III (2.4-) 2.8-4 mm long including the awn, 2/5-3/5 the spikelet length, short-awned, awn (0.4-) 0.7-1 mm long, (1-) 3-nerved, sometimes the secondary nerves very faint, abaxially pubescent on the upper 1/2 or less, glabrous elsewhere, glume IV (2.8-) 3-4.2 (-4.8) mm long including the awn, 1/2-3/5 times the spikelet length, apex short-awned to awned, awn 0.4-0.7 (-0.9) mm long, 3 (-5)-nerved, sometimes with obscure secondary nerves, abaxially pubescent on the upper 1/3 and glabrous elsewhere, lemma (5.3-) 6-8.2 (-9) mm long, including the mucro, mucronate, 7, (8) or 9-nerved, keeled, abaxially incanous; palea (5.3-) 6-6.9 (-8.8) mm long, subequal to the lemma, bimucronulate, abaxially incanous, 4-nerved, slightly 2-keeled, sulcate only toward the apex. **Lodicules** 3, glabrous, ciliate; the anterior pair ca. 0.9-1.53 mm long, the posterior one 0.8-1.2 mm long. **Stamens** 3, anthers 1.2-3 mm, yellow. **Fruit** unknown. **Habitat** in in a transitional zone between the upper montane forest and high altitude grassland habitats, on rocky outcrops or in rocky soils at 1780-2100 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico









Tipos de Vegetación



Campo de altitud


Distribución GeográficaOcurrencias confirmadas



Sudeste (Espírito Santo, Minas Gerais)

MATERIAL TESTIMONIO


Clark & Morel, 701, SP,  (BHCB000391), K,  (K000433259), MO (MO2114096), NY,  (NY00380454), RB, 376348,  (RB00613877), RB, 376348,  (RB01127474), SJRP, 376348,  (SJRP00012599), SPF, 376348,  (SPF00225900), US, 376348,  (US00406482), Minas Gerais, **Typus**

Pianissola, E.M.; et al., 135, VIC, 047043,   (VIC047043), Minas Gerais

Pianissola, E.M.; et al., 115, VIC, 046288,  (VIC046288), Minas Gerais

Hatschbach, G.; Hatschbach, M.; Silva, J.M.; Hatschbach, M.; Silva, J.M., 55481, MBM, 143727,   (MBM143727), Minas Gerais

Viana, PL, 2528, SPF,  (SPF00189280), Minas Gerais

Pianissola, E.M.; et al., 80, VIC, 046286,  (VIC046286), Minas Gerais

Chusquea capitata Nees

Tiene como sinónimo

homotípico *Rettbergia capitata* Nees ex Döll

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous/scabrous; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/contracted/capitate; **bract(s) spathaceous** present/1/2; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** subulate; **apex of the glume 4** subulate; **lemma** 5 veins/7 veins/9 veins/pubescent/apex connate/apex acute; **palea** 6 veins/2 keeled/apex acute/pubescent/scabrous.

DESCRIPCIÓN ADICIONAL

Culms 3–8 m long, scandent to hanging; internodes (13–) 22–38 cm long, 0.5–1 cm in diameter, glabrous or scabrid just below the node, white waxy band absent. **Culm leaves** (in the few complete specimens) 19.8–38 cm long; sheaths 17.8–19 cm long, 7–9 times as long as the blade, abaxially retrorsely scabrous, glabrous toward the base, midrib abaxially visible toward the apex, overlapping margin glabrous or ciliate; girdles 2–4 mm long, glabrous, straw-colored to brown; inner ligules ca. 2 mm long, truncate, erose; blades 2–2.8 cm long, narrowly triangular, non-pseudopetiolate, adaxially scabrous-pubescent, abaxially glabrous, midrib abaxially prominent, forming a keel toward the apex, apex flat, ± subulate, margins glabrous. **Nodes** at mid-culm with the central bud subtended by 9–13 smaller subsidiary buds in 1–2 constellate rows; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible but not prominent. **Branching** infravaginal; the central branch when developed as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches (8–) 12–25 per node, 22–40 cm long, 1–2 mm in diameter, geniculate at the lower nodes, often rebranching from the lower nodes, girdles appressed tomentose, straw-colored to brown. **Foliage leaves** 4–6 per complement; sheaths persistent, striate, keeled more or less strongly toward the apex, glabrous, uniformly straw-colored to brown, the overlapping margin ciliate, sheath summit extension to ca. 0.5 mm, ciliate; outer ligules 0.1–0.6 mm long, bilobed to irregular, erect, extending as a mere rim along the juncture of the sheath summit and inner ligule, glabrous; inner ligules 0.7–1.5 mm long, rounded, glabrous; pseudopetioles 2–3 mm long, glabrous, the basal pulvinus usually visible and brownish, otherwise yellowish to green; blades (4–) 5.5–16.3 cm long, (0.6–) 1–2 cm wide, L:W 5–9, lanceolate to ovate-lanceolate, not tessellate, adaxially dark green, abaxially light green, adaxially and abaxially glabrous, occasionally abaxially pilose-pubescent, a basal, abaxial tuft of hairs sometimes present along one side of the midrib, the base rounded-attenuate, usually slightly asymmetrical, midrib centric to slightly excentric (1–1.3), adaxially visible toward the base, abaxially yellowish and prominent for nearly the full length, the margins glabrous to scabrous, the apex acuminate. **Synflorescences** (1–) 1.5–2.5 cm long, 1–2 (–2.5) cm wide, capitate paniculate, fully exerted but closely subtended by the spatheate bract(s), borne on leafy branches only, usually subtended by 1 (rarely 2) spatheate bract(s), sheaths 0.9–2 cm long, blades (0.2–)1–3.7 cm long, usually green; main axis angular, straight, glabrous to more commonly scabrous-pubescent; branches 0.2–0.4 cm long at base, angular, glabrous to scabrous-pubescent, subtended by small bracts, that subtending the first branch 0.1–1.3 cm long, narrowly triangular, attenuate, rarely spathe-like, those subtending higher branches minute, 0.2–1 mm long; pedicels 0.5–1.5 mm long, angular, scabrous-pubescent, not pulvinate, bracteate. **Spikelets** (6.3–) 7–9.7 (–10.3) mm long, strongly laterally compressed; glumes I and II awned, keeled, abaxially glabrous but scabrous-pubescent along the midrib and awn, the awns somewhat flattened, often twisted; glume I 5.4–9.7 mm long including the awn, ca. (0.3–) 0.7–1 the spikelet length, 1-nerved, the awn 3.9–5.5 (–7.7) mm long; glume II 5.1–8.7 (–11) mm long including the awn, (0.5) 0.7–1 the spikelet length, 1- or 3-nerved, the awn 3.8–5.4 (–8.7) mm long; glume III (4.2–) 5.4–8.7 mm long, ca. 3/4 the spikelet length, subulate, abaxially scabrid for the upper 2/3, 3- or 5-nerved; glume IV (4.6–) 5.6–9.1 mm long, 0.7–1 the spikelet length, subulate, abaxially scabrous-pubescent for the upper 2/3, pubescent toward the margins and along the midrib, 3-, 5- or 7-nerved; lemma (5.6–) 6.5–10.4 mm long, acute, the margins connate at the apex, abaxially scabrous-pubescent for the upper 2/3, pubescent toward the margins, hispid along the midrib, 5-, 7- or 9-nerved; palea 6–10.7 mm long, usually slightly longer than the lemma, apex acute, abaxially scabrous-pubescent on the upper 1/2, scabrous-hispid along the midrib, 6-nerved, bicarinate at the apex, but one nerve dominant and forming a single keel for the rest of the length below (1-keeled), the wings fused at the apex. **Lodicules** 3, glabrous; the anterior pair 1.2–1.3 mm long, the posterior one ca. 0.6 mm long. **Anthers** 2.3–4.2 mm long. **Fruit** a basic caryopsis, 3 mm long, 1.3 mm wide, style base persistent, 0.4 mm long, embryo ca. 0.5 mm long, hilum linear. **Habitat** in Atlantic forest at 600–1,550 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico


Tipos de Vegetación

Bosques Ribereños o de Galería, Selva Ombrófila

Distribución GeográficaOcurrencias confirmadas

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sur (Paraná, Santa Catarina)

MATERIAL TESTIMONIOSellow, Friedrich, s.n., E,  (E00373677), **Typus**Sellow, Friedrich, s.n., E,  (E00373676), **Typus**F. Sellow, s.n., B, **Typus**

R. Schnell, 8244, P (P04430615), Rio de Janeiro

L. Clark & M. Morel, 692, MBML, Espírito Santo

Pereira, 2118, RB, Espírito Santo

L. Clark & P. Windisch, 736, SJRP, BHCB, Minas Gerais

L. Clark & M. Morel, 698, SJRP, BHCB, Minas Gerais

L. Clark et al., 667, SJRP, Minas Gerais

Ferreira et al., 1150, RB, Minas Gerais

Ferreira et al., 1229, SPF, Minas Gerais

G. Hatschbach, 15278, MBM, Paraná

Ribas & Pereira, 1957, MBM, Paraná

G. Hatschbach, 31135, MBM, Paraná

A. Mota, 328, HUEFS, Paraná

Cordeiro et al., 1515, MBM, Paraná

Kummrow & Kuniyoshi, 2171, MBM, Paraná

Silva et al., 4391, MBM, Paraná

L. Clark & M. Morel, 631, SJRP, RB, Rio de Janeiro

Lima et al., 3689, GUA, SP, Rio de Janeiro

Glaziou, 17919, US, Rio de Janeiro

L. Clark et al., 676, SJRP, RB, Rio de Janeiro

L. Clark et al., 680, SJRP, RB, Rio de Janeiro

Klein & Bresolin, 10568, US, Santa Catarina

Klein & Bresolin, 10619, FLOR, Santa Catarina

B.R. Reitz & R.M. Klein, 18097, HBR, Santa Catarina

B.R. Reitz & R.M. Klein, 6361, US, Santa Catarina

Martinelli & Chautems, 9837, RB, São Paulo

L. Clark & M. Morel, 622, SP, SJRP, São Paulo

Bernacci et al., 4477, IAC, São Paulo

Schwacke, 1931, RB, São Paulo

Lutz & Lutz, 1933, R, São Paulo

R. Schnell, 8244, P (P04430620), Rio de Janeiro

R. Schnell, 8244, P (P04430622), Rio de Janeiro

Brotto, ML, 1752, MBM (MBM392147), Paraná

Cordeiro, J., s.n., FURB (FURB38841), Paraná

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Mota, A.C. (2013) *Sistemática de Chusquea subgênero Rettbergia (Bambusoideae, Poaceae)*. Doctoral thesis, Universidade Estadual de Feira de Santana. 272 pp.

Chusquea capituliflora Trin.

Este tratamiento consta de los siguientes taxones: *Chusquea capituliflora*, .

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/capitate; **bract(s)** spathaceous present/1; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** obtuse; **apex of the glume 4** obtuse; **lemma** 7 veins/9 veins/scabrous/apex connate/apex obtuse; **palea** 4 veins/6 veins/weakly 2 keeled/apex obtuse/pubescent.

DESCRIPCIÓN ADICIONAL

Culms 5–15 m long, scandent; internodes 26–50 cm long, 1–2 cm in diameter, terete, glabrous, uniformly green when young, becoming slightly discolored with age to brown but without well-defined black splotches, white waxy band absent. **Culm leaves** 19–48.3 cm long, persistent, juncture of sheath and blade abaxially a ± horizontal line or obscure; sheaths 15–39.6 cm long, 3–9.4 times as long as the blade, abaxially retrorsely scabrid or scabrous, sometimes scabrous only toward the apex, midrib abaxially visible toward the apex or indistinguishable, margins ciliate or glabrous; girdles 2–7 mm long, glabrous, straw-colored to dark brown, usually more or less similar to the sheath; inner ligules 0.5–2 mm long, irregular, ciliate; blades 3–8.7 cm long, narrowly triangular, non-pseudopetiolate, adaxially pubescent or scabrid, abaxially scabrid, apex flat, acuminate to subulate, margins glabrous. **Nodes** at mid-culm with one dome-shaped central bud subtended by 4–7–smaller subsidiary buds in 1 constellate row; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible as a line but not usually prominent. **Branching** infravaginal; the central branch when developed as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches 4–9 per node, 30–38 cm long, 1–1.5 mm in diameter, geniculate, usually rebranching from the lower nodes, girdles brown to purple-black, glabrous or tomentose. **Foliage leaves** 3–7 per complement; sheaths persistent, striate, keeled toward the apex, glabrous, usually straw-colored, margins glabrous, summit extension 0.5–1 mm long, glabrous; outer ligules 0.2–0.5 mm long, unlobed to bilobed, erect, extending as a mere rim along the juncture of the summit extension and the inner ligule, glabrous; inner ligules (0.5–) 1–1.5 mm long, rounded to truncate, glabrous or pubescent; pseudopetioles (1–) 2–4 mm long, glabrous, pulvinus usually darker, otherwise green; blades 7–14.3 (–18.3) cm long, 0.9–2.2 (–2.5) cm wide, L:W 4–11, lanceolate to ovate-lanceolate, not tessellate, green, adaxially glabrous, abaxially glabrous, basal tuft of hairs along one side of the midrib absent, the base rounded-attenuate, often slightly asymmetrical, midrib slightly excentric to excentric (1.1–1.5), adaxially visible only at the base, abaxially yellowish and ± prominent for about 2/3 of its length, the margins glabrous to scabrous, the apex acuminate. **Synflorescences** (1–) 1.5–2.5 cm long, 1.5–2 cm wide, capitate panicle, fully exerted but closely subtended by the subtending bract, borne on leafy branches only, subtended by one spatheate bract, sheaths 1.3–2.2 cm long, blades (1–) 2.8–5.6 cm long, green; main axis angular, straight, glabrous; branches 0.3–1 cm long at the base, angular, glabrous to more commonly pubescent, subtended by small bracts, that subtending the first branch 0.4–1.2 cm long, attenuate, sometimes spathe-like with the sheath 0.7–0.8 cm long and the blade 1–1.2 cm long, green, those subtending the higher branches 0.1–0.8 (–) mm long; pedicels 0.5–2 mm long, angular, glabrous to more commonly pubescent, often subtended by minute bracts. **Spikelets** 7–8.5 mm long, ± laterally compressed; glumes I and II awned, ± keeled, abaxially sparsely pilose in the midrib; glume I 3.5–4.5 mm long including the awn, 1/3–1/2 the spikelet length, 1- or 3-nerved, the awn 1–2.5 mm long; glume II 3–4.5 mm long including the awn, ca. 1/3–1/2 the spikelet length, 3- or 5-nerved, the awn 0.7–2.3 mm long; glumes III and IV obtuse, abaxially scabrous, 5-, 7- or 9-nerved; glume III 6–7 mm long, 0.8–0.88 the spikelet length, shortly subulate; glume IV 8–8.5 mm long, equaling the spikelet length; lemma 7.5–8 mm long, obtuse, margins connate just at the apex, abaxially scabrous, 7- or 9-nerved; palea 7.5–8 mm long, more or less obtuse, pubescent at the apex, 4- or 6-nerved, weakly 2-keeled, sulcate only near the apex, the sulcus scabrid. **Lodicules** 3; the anterior pair ca. 2 mm long, the posterior one ca. 1.7 mm long. **Anthers** 4–5.7 mm long. **Fruit** not seen. **Habitat** in Atlantic forest at 0–1,330 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativo, Es endêmica de Brasil

Domínios Fitogeográficos

Bosque Atlântico

Tipos de Vegetación

Bosques Ribereños o de Galería, Bosque Estacional Semidecidual, Selva Ombrófila, Selva Ombrófila Mixta

Distribución Geográfica

Ocurrencias confirmadas

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sur (Paraná, Rio Grande del Sul, Santa Catarina)

MATERIAL TESTIMONIO

Riedel, s.n., LE, Rio de Janeiro, **Typus**

A. Mota, 303, HUEFS, Espírito Santo

Barreto, 2959, R, Minas Gerais

L. Clark & M. Morel, 777, SJRP, BHCB, Minas Gerais

L. Clark & M. Morel, 783, SJRP, BHCB, Minas Gerais

Andrade, 1318, SPF, Minas Gerais

Kuhlmann, 1975, RB, Minas Gerais

G. Hatschbach, 48106, MBM, Paraná

G. Hatschbach, 19216, MBM, Paraná

Kurtz et al., 84, RB, Rio de Janeiro

Kuhlmann & Goncalves, 2850, SP, HUEFS, São Paulo

Webster, 25212, UEC, São Paulo

Hoehne, s.n., SP, 3873, São Paulo

Schmidt & Molz, 1490, ICN, Rio Grande del Sul

Schmidt et al., 1527, ICN, Rio Grande del Sul

Silva, JM, 9315, MBM (MBM406510), Paraná

J.M. Silva, 9315, HCF (HCF000022869), Paraná

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In Flora do Cerrado *Chusquea capituliflora* Trin.(Brandão et al., in *Daphne* 1(3): 45, 1991) [MG]; (Brandão et al. in *Daphne* 7(1): 38, 1997) [MG]

Mota, A.C. 2013. *Sistemática de Chusquea subgênero Rettbergia (Bambusoideae, Poaceae)*. Doctoral thesis, Universidade Estadual de Feira de Santana. 272 pp.

Chusquea ciliatifolia A. C. Mota, E. J. Judziewicz & L. G. Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** not observed; **form of the leaf of the culm** not observed. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spatheaceous absent; **apex glume 1** awned/subulate; **apex of the glume 2** awned/subulate; **apex of the glume 3** subulate; **apex of the glume 4** subulate; **lemma** 5 veins/glabrous/apex connate/apex acute; **palea** 4 veins/2 keeled/2 mucronate/scabrous.

DESCRIPCIÓN ADICIONAL

Culms ca. 5 m long, scandent; internodes 18.5–23.5 cm long, 0.22–0.32 cm in diameter, terete, glabrous, mottled, white waxy band below the node absent. **Culm leaves** abaxially retrorsely scabrous (complete leaves not seen); girdles 2–3 mm long, glabrous, brown. **Nodes** at mid-culm with one dome-shaped central bud subtended by 5–11 smaller subsidiary buds in one row, in a constellate arrangement; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible but not prominent. **Branching** infravaginal; the central branch usually developed, as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches 5–12 per node, 22–40 cm long, 1 mm in diameter, geniculate, not rebranching, girdles black, glabrous. **Foliage leaves** 5–8 per complement; sheaths persistent, weakly striate, strongly keeled toward the apex, glabrous to sparsely pilose, straw colored to slightly variegated, the overlapping margin ciliate, summit extension minimal, to 0.2 mm long; outer ligules 0.2 mm long, lobed, spreading, extending to the margins along the juncture with the inner ligule, glabrous; inner ligules 0.2 mm long, truncate, glabrous; pseudopetioles 1–1.5 mm long, adaxially glabrous, abaxially pilose, pulvinus absent, green; blades 14.4–17 cm long, 0.9–1.0 cm wide, L:W 16–17, linear-lanceolate, not tessellate, adaxially green, abaxially glaucous, adaxially glabrous, abaxially sparsely pilose at the midrib with a tuft of hairs at the base, base slightly asymmetrical, rounded-attenuate, midrib slightly excentric (1.25–1.38:1), adaxially distinguishable at the base, abaxially yellowish and prominent for most of the length toward the apex, the margins ciliate, the cilia ca. 1 mm long, the apex acuminate. **Synflorescences** 2.5–3 cm long, 1.5–2 cm wide, open paniculate, with primary branches only, just fully exerted from the subtending leaf, borne on leafy branches only, not subtended by a spatheate bract; main axis angular, straight, pilose; branches 1–2 cm long at the base, angular, pilose, usually basally swollen and spreading, the lowermost one subtended by a rounded bract ca. 0.2 mm long, otherwise the branches ebracteate; pedicels 1–3 mm long, angular, pilose, slightly swollen immediately below the spikelet, usually basally swollen and spreading. **Spikelets** 6.4–6.8 mm long, laterally compressed; glumes I and II subulate to awned, slightly keeled, abaxially scabrous, with ciliolate margins, 3-nerved; glume I 0.8–1 mm long, 0.15–0.17 times the length of the lemma; glume II 1–1.2 mm long, 0.18–0.2 times the length of the lemma; glumes III and IV subulate, abaxially glabrous; glume III 1.8–2 mm long, 0.33 times the length of the lemma, 3-nerved; glume IV 3–3.4 mm long, 0.55–0.57 times the length of the lemma, 3-nerved; lemma 5.5–6 mm long, acute, abaxially glabrous, 5-nerved, margins at most slightly fused at the apex; palea 6.4–6.8 mm long, larger than the lemma, bimucronulate, abaxially scabrous, 4-nerved, 2-keeled, sulcate only toward the apex, the sulcus glabrous. **Lodicules** 3, pubescent; the anterior pair 1 mm long, the posterior one 0.5 mm long. **Anthers** ca. 3 mm long. **Fruits** not seen. **Habitat** in Atlantic forest at 600–900 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Selva Ombrófila

Distribución GeográficaOcurrencias confirmadas

Nordeste (Bahia)

Sudeste (Minas Gerais)

MATERIAL TESTIMONIO

s.c., null, P (P00638066)

M. M. M. Lopes, 1255, HUEFS, Bahia, **Typus**

Oliveira, R. P., 1223, CEPEC,    (CEPEC00116653), Bahia

Ferreira et al., 1508, CEPEC, Bahia

Fiaschi et al., 1789, CEPEC, Bahia

Mota & Carvalho-Sobrinho, 389, HUEFS, Bahia

Santos et al., 4051, CEPEC, Bahia

Santos & Judziewicz, 4098, CEPEC, Bahia

Lombardi, 5434, HUEFS, Minas Gerais

Lombardi, 5897, HUEFS, Minas Gerais

BIBLIOGRAFIA

Mota, A.C. (2013) *Sistemática de Chusquea subgênero Rettbergia (Bambusoideae, Poaceae)*. Doctoral thesis, Universidade Estadual de Feira de Santana. 272 pp.

Mota, A.C., Oliveira, R.P. & Clark, L.G. (2014) Increasing the knowledge of Brazilian bamboos: two new species of *Chusquea* subg. *Rettbergia* (Bambusoideae, Poaceae). *Phytotaxa* 161 (3): 201–210.

Chusquea clemirae A. C. Mota, R. P. Oliveira & L. G. Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid/fistulose; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous/pilose; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** not observed; **bract(s)** **spathaceous** not observed; **apex glume 1** not observed; **apex of the glume 2** not observed; **apex of the glume 3** not observed; **apex of the glume 4** not observed; **lemma** not observed; **pale** not observed.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 5–6 m long, erect at the base then scandent or clambering and hanging above; internodes 10–28 cm long, 0.4–0.9 cm in diameter, solid to hollow, medulla spongy, collapsed, greenish with vinaceous spots abaxially, hairy below the node, a white waxy band about 1 cm wide present below the node and wearing away with age. **Culm leaves** 19–23 cm long, late deciduous, differentiated, the juncture of the sheath and blade abaxially a faint line; sheaths 11–12 cm long, 1.1–1.4 times as long as the blade, adaxially glabrous, abaxially sparsely hairy and short scabrous, midrib obscure, the margins ciliate; girdles 0.6–1.2 cm wide, stramineous, glabrous, a small corky ridge present at the juncture with the sheath; inner ligules ca. 1 mm long; outer ligule lacking; blades 8–11 cm long, triangular, non-pseudopetiolate, erect, deciduous, adaxially and abaxially scabrous, base as wide as sheath summit the midrib evident only toward the apex, flat toward the apex, the apex acuminate, the margins ciliate. **Nodes** at mid-culm with one triangular, vertically oriented central bud subtended by 8–18 smaller subequal subsidiary buds in 1(–2) rows; nodal line dipping slightly below the bud/branch complement; supranodal ridge slightly swollen. **Branching** infravaginal; central branch frequently developing, emerging more or less erect, then diverging up to 45° from the main culm; leafy subsidiary branches 5–18 per node, 18–34 cm long, 1–1.5 mm in diameter. **Foliage leaves** 5–7 per complement; sheaths persistent, hairy, the margins ciliate, without summit extensions; outer ligules 0.2–0.8 mm long, hairy; inner ligules ca. 1 mm long, membranous, entire, scabrous; pseudopetioles ca. 1 mm long, adaxially hairy, abaxially glabrous; blades 7.9–15.2 cm long, 0.8–1.8 cm wide, L:W 7.2–9.9, lanceolate, not tessellate, membranous, adaxially sparsely hairy with the highest concentration of trichomes at the base, green, abaxially glabrous, green with vinaceous spots, the base subcordate, symmetric to slightly asymmetric, the margins scabrous, the apex acuminate. **Synflorescences** not seen. **Habitat** in montane Atlantic rainforest at ca. 800 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Selva Ombrófila

Distribución Geográfica

Ocurrencias confirmadas

Nordeste (Bahia)


MATERIAL TESTIMONIO


Thomas et al., 10466, CEPEC, Bahia

A.C. Mota, 82, HUEFS, Bahia

A.C. Mota, 240, HUEFS, Bahia

A.C. Mota, 258, HUEFS, Bahia

dos Santos, T.S., 10467, K,  (K000018825)

dos Santos, T.S., 10466, K,  (K000018824)

Hage, J., 2184A, K,  (K000018826)

A.C. Mota, 290, HUEFS, Bahia, **Typus**

BIBLIOGRAFIA

Mota AC, Oliveira RP, Clark LG. 2013. *Chusquea clemirae* Bambusoideae, Poaceae): a new woody bamboo from the montane Atlantic Rainforest of Bahia State, Brazil. *Systematic Botany* 38(1): 92--96.

Chusquea diversiglumis (Soderstr.) L.G.Clark

Tiene como sinónimo

homotípico *Neurolepis diversiglumis* Soderstr.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** absent; **bud main** triangular/ orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent; **form of the leaf of the culm** lanceolate. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** **spatheaceous** absent; **apex glume 1** apiculate; **apex of the glume 2** apiculate; **apex of the glume 3** apiculate; **apex of the glume 4** apiculate; **lemma** 3 veins/glabrous/apiculate; **pale** 2 veins/glabrous.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph. Culms ca. 1 m tall, erect, aerial branching absent; internodes very short. Culm leaves not well differentiated from the foliage leaves. Foliage leaves with sheaths compressed at the apex and forming a thick midrib, bearing a sheath summit extension on each side of ca. 1 cm long confluent with the inner ligule, a tuft of fimbriae ca. 5 mm long on either side of the pseudopetiole base; inner ligules ca. 1 cm long, firm, lacerate; pseudopetioles 1-3 cm long, without blade tissue; blades 50-66 cm long and 3.5-3.7 cm wide, lanceolate, green, adaxially glabrous, abaxially hirtellous, base attenuate, margins antrorsely scabrous, midrib centric, apex acute to subulate. Synflorescences 34-80 cm long, 4-10 cm wide, terminal to the culm, erect, paniculate, pyramidal, spatheate bracts absent; primary branches ascending or rigidly spreading. Spikelets 5-5.5 mm long, numerous, laterally compressed; glumes I and II dissimilar in shape and size, but both abaxially glabrous, stramineous or purple-stramineous, short-aristate, 1-nerved; glume I 1.7-1.9 mm long, more or less ovate, keeled, apex asymmetrically acute; glume II 1.6-2.2 mm long, broadly ovate, keeled, apex asymmetrical; glumes III and IV ovate-lanceolate, short-aristate, ciliate toward the apex but otherwise glabrous, rounded on the back, 3-nerved; glume III ca. 3.8 mm long; glume IV ca. 4.4 mm long; lemma ca. 5 mm long, ovate-lanceolate, minutely aristate, apex free, ciliate toward the apex but otherwise glabrous, rounded on the back, 3-nerved; palea ca. 3.7 mm long, ovate-lanceolate, glabrous, 2-nerved. Lodicules 3, thick, apically ciliate; posterior one ca. 0.8 mm long, 0.4 mm wide, 1-nerved; anterior pair subequal, ca. 1 mm long, 0.8-0.9 mm wide, multi-nerved. Stamens 3; anthers 1.7-1.8 mm long. Ovary glabrous; styles 2. Fruit not seen. Habitat on open slopes at ca. 2,600 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Amazonas

Tipos de Vegetación

Campo Rupestre





Distribución Geográfica

Ocurrencias confirmadas

Norte (Amazonas)

MATERIAL TESTIMONIO

B. Maguire, 60480, US,  (US00054957), Amazonas, **Typus**

- B. Maguire, 60480, US,  (US00054957), Amazonas, **Typus**
B. Maguire, 60480, NY,  (NY00381522), Amazonas, **Typus**
s.c., s.n., NY,  (NY02597375), Amazonas
Maguire, 60532A, NY,  (NY02597374), Amazonas
C. Farney, 873, INPA, Amazonas
B. Maguire, 60532a, IAN (IAN131352)

Chusquea erecta L.G.Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous/pubescent; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** not observed; **bract(s) spathaceous** not observed; **apex glume 1** not observed; **apex of the glume 2** not observed; **apex of the glume 3** not observed; **apex of the glume 4** not observed; **lemma** not observed; **pale** not observed.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 1.5-2.5 m tall, erect; internodes 6-7 cm long, ca. 1 cm in diameter, slightly flattened above the branch complement, waxy, minutely pubescent for the upper 1/2, becoming nearly glabrous with age, white waxy band absent. **Culm leaves** 11.5-15.5 cm long, deciduous as the branches develop, the base often splitting, more or less loosely wrapped around the culm, abaxially pubescent, juncture of the sheath and blade abaxially a more or less horizontal, indistinct line; sheaths 5.9-9.6 cm long, 1.1-1.6 times as long as the blade, more or less rectangular; girdle 1 mm wide, pubescent; inner ligule 0.5-1 mm long, glabrous; blades 5.5-7 cm long, narrowly triangular, non-pseudopetiolate, persistent, adaxially scabrid, apex flat, subulate, base narrower than the sheath apex. **Nodes** at mid-culm with the triangular central bud linearly subtended by 9-13 subsidiary buds; nodal line more or less horizontal; supranodal ridge obscure; root primordia absent. **Branching** intravaginal; central branch 22-38 cm long, straight, ascending, rebranching; leafy subsidiary branches 10-14 per node, 16-23 cm long, erect, usually not rebranching. **Foliage leaves** (7-) 10-24 per complement; sheaths persistent, pubescent between the nerves; outer ligule a minute, glabrous rim; inner ligule 0.5-0.8 mm long, truncate, minutely pubescent; pseudopetiole ca.0.5 mm long, distinct; blades 4.5-5.6 cm long, 0.4-0.45 cm wide, L:W = 10-15, linear-lanceolate, not tessellate, green, adaxially and abaxially glabrous, base rounded-attenuate, the apex subulate. **Synflorescences** unknown. **Habitat** in high elevation grassland formations at 800-900 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Campo de altitud

Distribución Geográfica

Ocurrencias confirmadas

Sudeste (São Paulo)

MATERIAL TESTIMONIO

Clark & Morel, 826, SP,  (NY00380457), São Paulo, **Typus**

BIBLIOGRAFIA

Clark, L.G. 1992. *Chusquea* sect. *Swallenochloa* (Poaceae: Bambusoideae) and allies in Brazil. *Brittonia* 44(4): 387-422.

Chusquea fasciculata Döll

DESCRIPCIÓN

Stem: rhizome rarely amphimorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** triangular; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** not observed; **form of the leaf of the culm** not observed. **Inflorescence:** **synflorescence** weakly paniculate to racemose/open; **bract(s)** spatheaceous absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** apiculate; **apex of the glume 4** apiculate; **lemma** apex free/awned; **pale** 4 veins/6 veins/2 mucronate.

DESCRIPCIÓN ADICIONAL

Rhizomes unknown, probably amphimorph. **Culms** 0.4–0.5 cm in diameter, habit unknown; internodes 8.5–14.6 cm long, solid, glabrous to scabrous-pubescent below the nodes, white waxy band absent. **Culm leaves** incomplete, a few persistent sheaths on one specimen only; sheaths 5–5.3 cm long, abaxially appressed hispid-pubescent at the apex and toward the summit on both sides, apex symmetrically concave, sheath summit extension 1.5–2 mm long on the underlapping margin and confluent with the inner ligule; girdle 0.5–1 mm wide, pubescent, persistent; inner ligule 1–1.5 mm long, truncate; outer ligule ca. 0.5 mm long, ciliate; blades not seen. **Nodal line** dipping very slightly below the branch complement. **Branch complement** of 11–22 branches (inferred from the number of leafy subsidiary branches bearing synflorescences) subtending the central branch, sometimes one or two subsidiary branches slightly more robust. **Foliage leaves** 4–7 per complement; sheaths persistent, shortly pubescent toward the overlapping margin, margins not scarious, overlapping margin ciliate, keeled, sheath summit extension 0.1–0.4 mm, erect, acute, developed only on one side of the sheath, ciliate; outer ligules 0.1–0.3 mm long, ciliolate; inner ligules 0.2–0.3 mm long, truncate, abaxially pubescent, ciliolate; pseudopetioles 0.5–1 mm, glabrous; blades 2.4–5.8 cm long, 0.5–0.8 (–1.4) cm wide, L:W=(4–) 5–7.2, lanceolate to ovate-lanceolate, not tessellate, green, adaxially and abaxially glabrous, abaxially a faint marginal green stripe sometimes visible, the base slightly asymmetrical, attenuate, the margins scabrid, midrib slightly excentric, the apex acuminate to apiculate. **Synflorescences** (1.5–) 2–4 cm long, (0.5–) 1–2 cm wide, racemose to paniculate, slightly curved, borne on both longer leafy subsidiary branches and shorter non-leafy branches, spatheate bract absent; rachis and branches scabrous along edges or scabrous-pubescent throughout; branches and pedicels spreading, diffuse; pedicels 7–14 mm long, very rarely ca. 1.5 mm long, scabrous along edges or scabrous-pubescent throughout. **Spikelets** 9–11.5 mm long, 2.1–2.8 mm wide; glumes I and II (0.1–) 0.2–0.3 (–0.4) mm long, 1/30–1/50 the spikelet length, abaxially glabrous, nerves absent; glumes III and IV 2/5–1/2 the spikelet length, abaxially scabrous-pubescent at the apex, 3–5-nerved; glume III 3.7–5.2 (–6.3) mm long, apiculate to awn-tipped, the awn (0.2–) 0.5–0.7 (–1.8) mm long; glume IV 4–5.7 mm long, awn-tipped, the awn 0.5–1 mm long; lemma 8.5–10 mm long, subulate to awned, the awn 0.5–1 mm long, the apex free, abaxially scabrous-pubescent toward the apex, (7–) 11–15-nerved; palea 8.3–9.4 mm long, shortly bisubulate, abaxially scabrous-pubescent toward the apex, 4–6-nerved. **Lodicules** ovate-lanceolate, apex acute; the anterior pair 1.5–2.5 mm long, the posterior one 1.5–2 mm long. **Anthers** 3.5–3.8 mm long. **Fruit** not seen. **Habitat** uncertain, probably Atlantic rainforest.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Bosques Ribereños o de Galería

Distribución Geográfica

Ocurrencias confirmadas

Sudeste (Minas Gerais)

MATERIAL TESTIMONIO

M.G. Caxambu et al., 4670, HCF (HCF000020437), Minas Gerais

Regnell, 1427, US, MB, S, Minas Gerais, **Typus**

Pedralli & Meyer, s.n., BHCB, Minas Gerais

Lindberg, 513, C, K, MB, S, US, Minas Gerais

BIBLIOGRAFIA

Attigala, L., A.F. Fuentes & L.G. Clark. 2017. *Chusquea* sect. *Tenellae* (Poaceae: Bambusoideae: Bambuseae), a taxonomic revision of a new section from South America. *Phytotaxa* 324(3): 239-265.

Chusquea fruticosa Pianiss., Santos-Gonç. & L.G. Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 9 veins/apex free; **pale** 4 veins/2 keeled.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 1.8-4 m tall, more or less erect with mature culms arching at the apex; internodes 7-14.7 cm long, 0.8-1.8 cm in diameter, terete to slightly flattened above the branch complement, glabrous, waxy, without a band of white wax below the nodal line. **Culm leaves** 13.2-19.5 cm long, deciduous; sheaths 8.9-12 cm long, 1.3-3 times as long as the blade, more or less triangular, abaxially glabrous, margins glabrous; girdle 0.4-2 mm wide, glabrous; inner ligule 0.5-1.9 mm long, erose, ciliolate; blades (3.5-9 cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially strigillose at the base, strigose at the apex, abaxially often strigillose at the apex and glabrous elsewhere or completely glabrous, apex navicular-mucronate, not twisted or recurved upon drying. **Nodes** at mid-culm with a triangular central bud flanked by (0-) 1-3 smaller subsidiary buds on each side; nodal line more or less horizontal; supranodal ridge slightly swollen. **Branching** intravaginal; central branch 26-83 cm long, ascending, rebranching; (0-) 2-6 subsidiary branches per node, 8-40 cm long, ascending, becoming shorter and less robust from the central branch, more or less erect, rebranching. **Foliage leaves** 4-12 (-16) per complement; sheaths deciduous, strigillose, nerves prominent; outer ligule less than 0.2 mm long, glabrous; inner ligule 0.3-0.9 mm long, rounded or more commonly truncate, abaxially finely ciliolate or glabrous; pseudopetiole 0.4-0.9 mm long, distinct; blades (4.5-) 5.6-6.8 cm long and 0.2-0.4 cm wide, L:W = 10.3-20, on vegetative branches, 2.6-4.2 cm long and 0.2-0.4 cm wide, L:W = 6-12, on reproductive branches, lanceolate, not tessellate, green, adaxially glabrous or scaberulous over some veins, abaxially glabrous, base asymmetric, cuneate-narrowly cuneate, margins scabrous, apex subulate. **Synflorescences** (1.3-) 1.9-4 cm long, 0.4-1.2 cm wide, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis angular, scaberulous to pubescent, branches angular, incanous to scaberulous, 1.2-2.2 cm long, appressed; pedicels (1-) 2-3.5 (-5) mm long, angular, scaberulous to pubescent. **Spikelets** 6-7.1 mm long, more or less terete; glumes I and II scalelike, abaxially glabrous or rarely incanous 0.1-0.5 mm long, less than 1/20 (-1/14) the spikelet length; glume II 0.2-0.7 mm long, less than 1/10 (-1/35) the spikelet length; glumes III and IV abaxially (sparsely) scaberulous above the midvein, glabrous or incanous elsewhere, 3 (-4)-nerved, keeled; glume III (3.3-) 3.8-5 mm long including the awn, 1/2-3/4 the length of the lemma, awned or rarely short-awned, awn (0.4-) 0.9-1.5 mm long, abaxially puberulent for the upper 1/2, or less, becoming pubescent towards the apex, glabrous elsewhere, glume IV 3.9-5.6 mm long including the awn, 3/5-4/5 times the spikelet length, apex awned, awn 0.9-1.6 mm long, abaxially puberulent for the upper 2/3, becoming pubescent toward the apex, lemma 6-7 mm long, including the mucro, mucronate, (8)-9-nerved, keeled, abaxially scaberulous along the midvein, glabrous to incanous elsewhere; palea (5.9-7.1 mm long, subequal to the lemma, bimucronulate, abaxially incanous, sometimes the sulcus puberulent, 4-nerved, 2-keeled, slightly sulcate from the base or more often sulcate from the middle portion. **Lodicules** 3, glabrous, ciliate; the anterior pair ca. 1-1.5 (-2) mm long, the posterior one 1.1-1.7 mm long. **Stamens** 3; anthers 3 mm long, yellow. **Fruit** unknown. **Habitat** in high elevation grasslands, in transitional vegetation to high elevation grasslands and above rocky outcrops at 1580-1980 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos




Bosque Atlântico

Tipos de Vegetación

Campo de altitud

Distribución GeográficaOcurrencias confirmadas

Sudeste (Minas Gerais, Rio de Janeiro)

MATERIAL TESTIMONIOPianissola & Silva, 116, VIC, Minas Gerais, **Typus**L.S. Leoni, 2749, RB,  (RB01368282), Minas GeraisPianissola, E.M., 116, HUEFS, 238540,  (HUEFS0238540), Minas Gerais, **Typus**Pianissola, E.M., 84, HUEFS, 238541,  (HUEFS0238541), Minas Gerais, **Typus**C. Baez, 1015, RB, , ,  (RB01176974), Rio de JaneiroPianissola, E.M., 104A, HUEFS, 238536, ,  (HUEFS0238536), Minas Gerais, **Typus**Pianissola, E.M., 105, HUEFS, 238537,  (HUEFS0238537), Minas Gerais, **Typus****BIBLIOGRAFIA**

PIANISSOLA, E. M., PARMA, D. F., SANTOS-GONÇALVES, A. P., & CLARK, L. G. 2018. Two new species of *Chusquea* subg. *Swallenochloa* (Poaceae: Bambusoideae: Bambuseae) from Minas Gerais, Brazil, and complete description of *C. caparaoensis*. *Phytotaxa*, 358(3), 235-250.

Chusquea gouveiensis K.Vidal & L.G.Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** wine-coloured/spot not uniform; **branching** infravaginal and extravaginal on the same plant; **bud main** developed/triangular/orientation vertical; **indumentum** pilose; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** weakly paniculate to racemose/contracted; **bract(s)** **spathaceous** absent; **apex glume 1** apiculate; **apex of the glume 2** apiculate; **apex of the glume 3** awned; **apex of the glume 4** apiculate; **lemma** 5 veins/pubescent/apex free/apiculate; **palea** 2 keeled/apex acute/2 mucronate/pubescent/scabrous.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. Culms 2-5 m long, erect at the base to scandent toward the apex; internodes (10-) 13-21.7 cm long, 0.3-1 cm in diameter, terete, vinaceous mottled, a densely pilose band of trichomes 1.2-2.2 cm wide present below the nodal line, with recurving trichomes ca. 1 mm long covering the upper 1/4-1/3 of the internode, otherwise glabrous, white waxy band absent. Culm leaves 16.2-20.2 cm long, 2.6-5.1 cm wide at the base, non-pseudopetiolate, with no differentiation between blade and sheath, inner ligule absent, belatedly deciduous to persistent, adaxially glabrous and shiny, abaxially with a band of trichomes at the base, above this on the lower half sparsely hispid with appressed trichomes, the upper half scabrid, apex acute, mucronate, becoming folded or twisted and sometimes recurved upon drying; girdle ca. 1.5 mm wide, hispid with retrorse trichomes 2-3 mm long. Nodes at mid-culm with a triangular central bud subtended by 40-90 smaller subsidiary buds in 4-5 rows, in a constellate arrangement; nodal line dipping slightly below the bud/branch complement, with dense band of pilose trichomes encircling the node and forming a fringe; supranodal ridge visible but not prominent. Branching infra- and extravaginal; subsidiary branches 40-90 per node, 6-20 cm long, geniculate at the base to the second or third node, then mostly ascending; floral branches (2.2-) 2.7-7.2 cm long, arched or rarely slightly geniculate only in the first node and becoming arched. Foliage leaves (4-) 6-15 per complement; sheaths 1-1.4 cm long, persistent, stramineous to faintly purple-spotted, overlapping margin ciliate, with cilia elongated at the apex (1 mm long), the overlapping side of the sheath pubescent between the margin and the keel, keeled toward the apex; outer ligules 0.2-0.3 mm long, ciliolate, with cilia ca. 0.5 mm long; inner ligules 0.3-0.5 mm long, membranaceous, truncate, rarely asymmetric, pubescent; pseudopetioles 0.8-1.1 mm long, hispid-pilose on both sides, pulvinus stramineous to darker brown; blades 2.2-4.7 cm long, 0.3-0.45 cm wide, L:W = 7.7-12 (-13.3), linear-lanceolate, not tessellate, green, adaxially glabrous, the veins forming ridges and those closest to the midrib bearing prickles, abaxially pubescent, trichomes often antrorse, veins not prominent, base attenuate, midrib slightly excentric, more prominent toward the base but visible for almost the entire length, margins glabrous basally, usually scabrous on the upper half to the apex, the apex acute. Synflorescences 2-2.3 cm long, 1.5-2 cm wide, weakly paniculate to racemose, congested, non-interrupted, borne on leafy branches only, subtending spatheate bract absent; pedicels 10-15 (-20) mm long, scabrous. Spikelets 6.7-8.9 mm long, 1.4-1.7 mm wide, terete; glumes I and II with the apex mucronate; glume I 0.3-0.5 mm long, ca. 1/20 of the spikelet length, pilose, acuminate; glume II 0.5-0.7 mm long, ca. 1/12 of the spikelet length, glabrous with tuft of trichomes at the base, acute; glumes III and IV membranaceous, 3-nerved; glume III 3.7-4.3 mm long, ca. 1/2 the spikelet length, scabrous to pubescent at the base, ciliate toward the apex, apex acute with awn 0.5-0.8 mm long; glume IV 4-5 mm long, ca. 3/5 the spikelet length, scabrous with appressed trichomes at the base, apex long ciliate (cilia ca. 1.5 mm long) with an awn 0.5-1 mm long; lemma 6.4-8 mm long, ciliate on the apical 1/3, apiculate, apex free, adaxially glabrous with a tuft of trichomes at the apex, abaxially pubescent with appressed trichomes, 5-nerved; palea (5-) 6-7.8 mm long, 2-keeled, sulcate from the middle to the apex, mucronate, apex acuminate (more rounded than the lemma) and margins slightly ciliate, abaxially glabrous at the base to scabrous-pubescent to the apex with appressed trichomes. Fruit a basic caryopsis, rounded, pericarp bright golden-colored, apex elongated and truncate, forming a slit. Habitat in gallery forests and forest remnants at 1,200-1,300 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlântico

Tipos de Vegetación



Área Antrópica, Cerrado (lato sensu), Bosques Ribereños o de Galería

Distribución Geográfica

Ocurrencias confirmadas

Sudeste (Minas Gerais)

MATERIAL TESTIMONIO

Vidal, K.V.A., 213, HUEFS, 223844, Minas Gerais, **Typus**
L. Clark, 713, SJRP,  (SJRP00012812), Minas Gerais
L. Clark, 713, RB, 376342,  (RB00613901), Minas Gerais

BIBLIOGRAFIA

Vidal K.V.A., Welker C.A.D., Oliveira I.L.C., Mota A.C., Oliveira R.P. & Clark L.G (2018). A new species of *Chusquea* subg. *Chusquea* (Poaceae–Bambusoideae– Bambuseae) from Minas Gerais, Brazil: morphological evidence and phylogenetic placement within the *Echusquea* clade. *Phytotaxa* 365 (1): 073–088. <https://doi.org/10.11646/phytotaxa.365.1.3>

Chusquea gracilis McClure & L.B.Sm.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** uniform; **branching** infravaginal and extravaginal on the same plant; **bud main** triangular; **indumentum** glabrous/pilose; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** weakly paniculate to racemose/open; **bract(s) spathaceous** absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 9 veins/awned; **palea** 2 keeled.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph. **Culms** 2-5 m long, erect at the base, arching and scandent above; internodes 14-23 cm long, 1-1.5 cm in diameter, sulcate above the bud/branch complement, becoming terete above, usually with a sometimes densely pilose band 0.5-1 (-3) cm long below the node, uniform in color, white waxy band absent. **Culm leaves** 18-30 cm long, sheath and blade not differentiated, at mid-culm usually extending slightly beyond the next node, adaxially pubescent toward the apex, abaxially scabrid-pubescent on the lower 1/3 and with a band of dense, golden hairs ca. 1.5 mm long at the base, becoming glabrous above, the overlapping margin fused for 1.5-3 cm at the base, apices becoming folded or twisted and sometimes recurved upon drying. **Nodes** at mid-culm with a triangular central bud subtended by 70-150 smaller, subequal subsidiary buds in 3-5 constellate rows; nodal line dipping slightly below the bud/branch complement; supranodal ridge visible but not prominent. **Branching** infra- and extravaginal; subsidiary branches 70-195 per node, 20-25 cm long, ca. 0.5 mm in diameter, spreading, often appearing verticillate. **Foliage leaves** 4-6 per complement; sheaths 1.8-2.2 cm long, persistent, uniformly tan to mottled with green, overlapping margin ciliate toward the apex and with a tuft of cilia ca. 0.8 mm long at the apex, otherwise pilose toward the apex (sometimes densely so), the underlapping margin ciliate just below the apex and with a tuft of cilia ca. 1 mm long at the apex, summit extensions absent; outer ligules 0.1-0.2 mm long, ciliolate; inner ligules 0.2-0.3 mm long; pseudopetioles ca. 1 mm long, adaxially pubescent, abaxially glabrous, ivory, distinct; blades 4-8 cm long, 0.45 cm wide, L:W = 14-27, linear-lanceolate, not tessellate, green, adaxially with a tuft of hairs at the base on one side of the midrib, otherwise glabrous or pubescent, with 2-3 nerves next to one margin raised and scabrid for the full length, abaxially glabrous but sometimes with a sparse tuft of hairs at the base, and if so, then adaxially scabrous at the base, base attenuate, midrib adaxially visible only at the base or uncommonly for up to half the length, abaxially visible for nearly the full length, margins scabrid, apex subulate. **Synflorescences** 3-5 cm long, 0.5-1 cm wide, few-flowered, diffuse, borne on leafy branches only, subtending spatheate bracts absent; pedicels 15-20 mm long, slender, scabrous. **Spikelets** 8-10.2 mm long, 1.3-2 mm wide, terete to slightly dorsally compressed; glumes I and II ca. 0.2 mm long, < 1/20 the spikelet length, scalelike; glumes III and IV ciliolate toward the apex, otherwise glabrous, awned, 5-nerved; glume III 3-4.7 mm long including the awn, extending 1/3-1/2 the spikelet length, awn 0.3-0.8 mm long; glume IV 4-4.7 mm long including the awn, extending ca. 1/2 the spikelet length, awn 0.7-0.8 mm long; lemma (6.7-) 7.1-9.9 mm long including the awn, the awn ca. 1 mm long, apex free, abaxially scabrid on the upper 1/3, 9-11-nerved; palea 7.3-9.6 mm long, almost always exceeding the lemma, biapiculate, 2-keeled but sulcate only near the apex, abaxially scabrid-pubescent at the apex on both the sulcus and the keels, usually 5-nerved. **Fruit** not seen. **Habitat** in Atlantic forest at 550-880 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Bosques Ribereños o de Galería, Bosque Estacional Decidual, Selva Ombrófila Mixta

Distribución GeográficaOcurencias confirmadas

Sur (Paraná, Rio Grande del Sul, Santa Catarina)

MATERIAL TESTIMONIO

Swallen, J.R., 8285, US, Santa Catarina, **Typus**

G. Hatschbach, 51511, K (K001106342), Paraná

J.R. Pirani, 940, SPF, Paraná

Valls, Longhi & Barcellos, 3082, US, Rio Grande del Sul

Clark, L.G. & W. Oliveira, 894, SP, Santa Catarina

Clark, L.G. & W. Oliveira, 899, SP, Santa Catarina

Clark, L.G. et al., 1034, SP, Santa Catarina

Clark, L.G. & W. Oliveira, 905, SP, Santa Catarina

Hatschbach, G, 58186, MBM (MBM155576), Paraná

Clark, L.G. et al., 1212, SP, Paraná

Hatschbach & Manosso, 51511, MBM, Paraná

Poliquesi & Cordeiro, 135, MBM, Paraná

Swallen, J.R., 8582, US, Paraná

Dusen, 17600, US, Paraná

Schwirkowski, P., 2274, FURB, CRI, RB,  (RB01400270), Santa Catarina

Chusquea hatschbachii L.G.Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 7 veins/9 veins/awned; **pale** 4 veins/2 mucronate.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 1-1.5 m tall, probably erect; internodes 5-8 cm long, 0.4-0.6 cm in diameter, shallowly sulcate for nearly the full length between nodes, glabrous, waxy with a diffuse band of white wax just below the nodal line. **Culm leaves** 9-14 cm long, persistent; sheaths 6-9.5 cm long, 1.7-6 times as long as the blade, more or less triangular, abaxially scabrid, margins glabrous to sparsely apically ciliate; girdle ca. 1 mm wide, glabrous; inner ligule 1-1.5 mm long, slightly irregular, erose to ciliolate; blades 1.5-4.6 cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially and abaxially retrorsely scabrid, the apex subulate, flat. **Nodes** at mid-culm with bud complement not seen; nodal line more or less horizontal; supranodal ridge slightly swollen. **Branching** intravaginal; central branch 22-44 cm long, usually curving upwards, away from main culm at a 25°-45° angle, with no recurving; sometimes rebranching, at least when flowering; 6-12 subsidiary branches per node, 4-16 cm long, more or less erect, some upward curving, often with limited rebranching. **Foliage leaves** 3-4 per complement; sheaths persistent, glabrous, nerves prominent; outer ligule 0.1-0.5 mm long, glabrous, somewhat irregular; inner ligule 1.0-2.5 mm long, truncate to rounded, glabrous; pseudopetiole 0.5-1.5 mm long, distinct; blades 3.3-6.6 cm long and 0.4-0.9 cm wide on vegetative branches, 3-5.8 cm long and 0.3-0.6 cm wide on reproductive branches, L:W = (4.4-) 6.5-12, lanceolate, not tessellate, green, base rounded to rounded-attenuate, margins antrorsely scabrous, apex subulate. **Synflorescences** 4.0-6.5 cm long, 1-2 cm wide, paniculate, narrow, base usually retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis, branches, and pedicels angular, pubescent, often glaucous; rachis edges scabrous; branches 1-2.5 cm long, appressed; pedicels 2-5 mm long. **Spikelets** 7.7-8.7 mm long, more or less laterally compressed; glume I 0.2-0.6 mm long, < 1/25 the spikelet length, scalelike; glume II 0.6-2 mm long, variable but usually 1/10-1/3 of the spikelet length, rounded; glumes III and IV awned, 3-nerved; glume III 4.5-6 mm long including the awn, ca. 2/3 the length of the spikelet, awn 1-1.5 mm long; glume VI 5-6.4 mm long including the awn, ca. 3/4 the length of the spikelet, awn 1-2 mm long; lemmas 7.1-8.5 mm long including the awn, awn 0.8-1.2 mm long, apex free, 7-9-nerved; paleas 7-7.5 mm long, subequal to the fertile lemma, bimucronate, awn tips ca. 0.7 mm long, 4-nerved, 2-keeled, sulcate for the full length. **Lodicules** 3; the anterior pair ca. 1.5 mm long, ciliate, asymmetrical, the posterior one ca. 1 mm long, ciliate. **Stamens** 3; anthers 3-4 mm long, yellow. **Fruit** unknown. **Habitat** on rocky outcrops at ca. 1,800 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Campo de altitud

Distribución Geográfica

Ocurrencias confirmadas

Sur (Santa Catarina)

MATERIAL TESTIMONIO

Hatschbach, G, 55355, ISC, MBM (MBM143734), Santa Catarina

Hatschbach et al., 61669, ISC, MBM, Santa Catarina, **Typus**

Chusquea heterophylla Nees

Este tratamiento consta de los siguientes taxones: *Chusquea heterophylla*, .

Tiene como sinónimo

homotípico *Chusquea heterophylla* var. *squamosa* Doell

homotípico *Chusquea pinifolia* var. *heterophylla* Hackel

heterotípica *Chusquea heterophylla* var. *elongata* Doell

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** extravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous/pubescent; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** **spathaceous** absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** mucicous/subulate; **apex of the glume 4** mucicous/subulate; **lemma** 5 veins/7 veins/9 veins/pubescent/mucicous; **pale** 4 veins/6 veins/2 keeled/2 mucronate.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 1-2 (-3) m tall, erect at the base, inclined to arching slightly at the apices; internodes 3.8-8.6 cm long, 1-1.5 (-2) cm in diameter, slightly flattened to sulcate above the branch complement, waxy, pubescent just below the nodes, glabrous on the lower half, white waxy band absent. **Culm leaves** (9-) 11.6-23.6 cm long, persistent, often surpassing the next node, abaxially scabrid to scabrous, juncture of sheath and blade abaxially an obscure, more or less horizontal line; sheaths (6-) 7.5-16 cm long, 1-2.4 (-4.2) times as long as the blade, fused for 1-2 cm at the base; girdle 1-2 mm wide, pubescent; inner ligule 0.5-1 mm long, irregular, ciliolate, sometimes absent; blades (3.5-) 6-9 cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially scabrid or pubescent toward base or apex, apex mucronate or subulate, flat, base narrower than the sheath apex. **Nodes** at mid-culm with the one triangular central bud subtended by 1 or 2 rows of smaller subsidiary buds in a constellate array; nodal line dipping below the branch complement; supranodal ridge prominent; root primordia absent. **Branching** extravaginal; central branch 18-29 cm long, ascending, rebranching; leafy subsidiary branches 12-45 per node, 3-15 cm long, ascending, occasionally rebranching from the base. **Foliage leaves** 9-12 (-18) per complement; sheaths persistent, pubescent between the nerves, especially toward the margins, the margins ciliate or glabrous; outer ligule 0.1-0.2 mm, ciliolate; inner ligule 0.3-0.5 mm long, truncate; pseudopetiole ca. 0.5 mm long, more or less distinct; blades 1.3-3.7 cm long, 0.2-0.4 cm wide, L:W = 6.5-15, not tessellate, green, glabrous, base rounded to more commonly rounded-attenuate, apex subulate. **Synflorescences** 1-4 cm long, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis angular, pubescent; branches angular, pubescent, appressed, the lower ones to 1 cm long; pedicels 1-3.5 mm long, angular, pubescent, appressed. **Spikelets** 5.4-6.9 mm long, 1.2-1.5 mm wide, more or less terete; glumes I and II ca. 1/10 the spikelet length, scalelike, acute to obtuse, pubescent; glume I 0.4-1 mm long, 1-nerved or nerves absent; glume II 0.4-2 mm long, 1- or 3-nerved or nerves absent; glumes III and IV 1/2-2/3 the spikelet length, mucronate or subulate, abaxially pubescent on the upper one-half to two-thirds, 3- or 5-nerved; glume III 2.9-4.2 mm long; glume IV 3.1-4.7 mm long; lemma 4.9-6.7 mm long, mucronate or subulate, apex free, abaxially pubescent on the upper two-thirds, 5-, 7-, or 9-nerved; palea 4-6.1 mm long, slightly shorter than the fertile lemma, bimucronate, sulcate toward the apex, 4- or 6-nerved. **Stamens** 3; anthers ca. 3 mm long. **Lodicules** 3, the anterior pair 0.8-1 mm long, the posterior one ca. 0.8 mm long, ciliate. **Fruit** a basic caryopsis ca. 3.7 mm long, the beak 0.3 mm long, reddish-brown with a dark, linear hilum. **Habitat** in high elevation grassland at 2,100-2,500 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos


Bosque Atlântico

Tipos de Vegetación


Campo de altitud, Selva Ombrófila

Distribución GeográficaOcurrencias confirmadas



Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

MATERIAL TESTIMONIOM.A. Glazian, 6444, RB, 102535,  (RB00614006)

A.F.M. Glaziou, 6444, RB, Rio de Janeiro

M.R. Pieltobom-Silva, 4134, SJRP,  (SJRP00012788), Minas GeraisT. R. Soderstrom, 1928, CEPEC,  (CEPEC00012934), Rio de Janeiro

Clark, L.G., 804, SJRP, Rio de Janeiro

Thomas R. Soderstrom, 1928, RB, 228726,   (RB00614016), Rio de JaneiroL.L. Giacomini, 950, RB,   (RB01191207), Rio de Janeiro

A.C. Brade, 14061, RB, Rio de Janeiro

Clark, L.G., 658, SJRP, Minas Gerais

F. Sellow, s.n., LE, **Typus**





Clark, L.G., 634, SJRP, Minas Gerais

Clark, L.G., 791, SJRP, Rio de Janeiro

Clark, L.G., 792, SJRP, Rio de Janeiro


R. Schnell, 8406, P (P02357064), Rio de Janeiro

R. Schnell, 8406, P (P02357063), Rio de Janeiro

D.R. Couto, 4191, RB,  (RB01401289), Rio de JaneiroM.R. Pieltobom-Silva, 4140, SJRP,  (SJRP00012818), Minas GeraisM.R. Pieltobom-Silva, 4148, SJRP,  (SJRP00012820), Minas GeraisM.R. Pieltobom-Silva, 4147, SJRP,  (SJRP00012821), Minas Gerais

Clark, L.G., 803, SJRP, Rio de Janeiro

Schimitz, M.C., s.n., ESA (ESA003334)

M.R. Pieltobom-Silva, 4144, SJRP,  (SJRP00012819), Minas Gerais

Chusquea ibiramae McClure & L.B.Sm.

DESCRIPCIÓN

Stem: rhizome pachymorph/rarely amphimorph; **culm** solid; **orientation of the culm** scandent; **colour** wine-coloured; **branching** infravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** scabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous 1/2; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 7 veins/awned; **palea** 4 veins/scabrous.

DESCRIPCIÓN ADICIONAL

Rhizomes apparently amphimorph. **Culms** 2-7 m long, erect at the base, sometimes trailing, arching and scandent above; internodes 18-30 cm long, 0.5-1 cm in diameter, slightly flattened above the bud/branch complement but terete above, mottled with maroon spots at least when young, scabrous-papillate toward the apex, white waxy band absent. **Culm leaves** 9-14.7 cm long, persistent, not reaching the next node, juncture of sheath and blade abaxially a slanting line; sheaths 7.5-10.9 cm long, 2-3 (-5) times as long as the blade, abaxially with some scattered hispid trichomes, especially at the base, overlapping margin fused for ca. 1.5 cm at the base, sheath summit extensions present but inconspicuous; girdle ca. 2 mm long, pubescent, a small skirt present at the juncture with the sheath; inner ligule 1-2 mm long; blades 3.3-4.5 cm long, erect, triangular, non-pseudopetiolate, persistent, abaxially glabrous, base narrower than the sheath apex, apex subulate-setose, flat. **Nodes** at mid-culm with 1 triangular central bud subtended by ca. 6 smaller subsidiary buds; nodal line dipping only slightly below the bud/branch complement; supranodal ridge swollen, ± prominent. **Branching** infravaginal; central branch usually developing, ± ascending; subsidiary branches 2-12 (-15) per node, 30-52 cm long, 2-4 mm in diameter, some rebranching at the base. **Foliage leaves** 9-10 per complement; sheaths persistent, strongly keeled, prominently nerved, glabrous or glabrescent, uniform in color, the overlapping margin pectinately ciliate, sheath summit extension absent, underlapping margin glabrous but cilia present along the juncture of the inner ligule and its sheath summit extension, sheath summit extension 7-11 mm; outer ligules 0.2-2 mm long, glabrous, often bilobed to irregular, margin ciliolate, easily split; inner ligules 3-25 (-60) mm long, asymmetrical, tapering, chartaceous; pseudopetioles (2-) 4-5 mm long; blades 10.6-27 cm long, 1.6-3.8 (-5) cm wide, L:W = 4.6-7 (-9), ovate-lanceolate, not tessellate or weakly so, green, adaxially and abaxially glabrous, a basal abaxial tuft of hairs present or absent, base symmetrical and rounded-attenuate, midrib abaxially visible for the full length, adaxially 1-2 veins on one of the midrib side raised and scabrid for the full length, on the same side 1-2 marginal veins raised and scabrid from the middle portion to the apex, margins smooth on the lower half and becoming irregularly and sparsely scabrid above, apex setose to subulate. **Synflorescences** 7-18 cm long, paniculate, open, borne on leafy branches only, often exerted with the peduncle often equaling the length of the synflorescence, subtending spatheate bracts 1-2 but weakly differentiated; rachis and branches angular, pubescent; primary branches spreading to horizontal to slightly reflexed, the lowermost ones 6.5-12.5 cm long, spaced 2.5-4.5 cm apart, becoming closer toward the apex, with the uppermost branches ca. 1 cm apart; secondary or higher order branches (including pedicels) strongly spreading away from the main axis of the primary branches, those at the base of the lowermost primary branches ca. 3 cm long; pedicels 1-11 mm long. **Spikelets** (8-) 9-11 mm long, 1.6-1.8 mm wide, slightly dorsally compressed, often slightly falcate; glume I 0.1-0.2 mm long and glume II 0.1-0.4 mm long, scalelike, <1/30 the spikelet length, nerves absent; glumes III and IV awned, apical margins ciliate, otherwise abaxially scabrid toward the apex, bronze to purple-tinged to purple; glume III 3-5.5 mm long including the awn, 2/5-3/5 the spikelet length, awn 0.6-0.8 mm long, 3-nerved; glume IV 3.7-6 mm long including the awn, 1/2-3/5 (-2/3) the spikelet length, awn 0.3-0.7 mm long, 3-5-nerved; lemmas 8.5-10.8 mm long, short-awned, awn 0.2-0.5 mm long, apex free, pubescent at the apex, abaxially scabrid on the upper half, 7-9-nerved; paleas 7.9-9.2 mm long, pubescent at the apex, bimucronulate, 2-keeled, keels scabrid, sulcus pubescent at the apex, 4-6-nerved. **Stamens** 3; anthers ca. 4.9 mm long. **Habitat** in Atlantic forest and its transition to cloud forest and secondary vegetation at 300-800 (-1000) m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlântico

Tipos de Vegetación


Selva Ombrófila, Selva Ombrófila Mixta

Distribución GeográficaOcurrencias confirmadas


Nordeste (Bahia)

Sudeste (Espírito Santo, Rio de Janeiro, São Paulo)

Sur (Paraná, Santa Catarina)

MATERIAL TESTIMONIOF. O. Zuloaga, 2411, US, RB, 270947,   (RB00613908), Espírito SantoL. Clark, 1062, SJRP,  (SJRP00012829), São Paulo

Hatschbach, 14058, US, MBM, Paraná

L. Clark, 730, SJRP,  (SJRP00012565), São PauloG. Martinelli, 19475, RB,  (RB01218163), São Paulo


A.R. Reitz, 17973, US, Santa Catarina

A.R. Reitz, 18026, US, NY, Santa Catarina

Clark & Morel, 818, ISC, SP, São Paulo

Clark & Windisch, 730, ISC, SP, São Paulo

Clark & Windisch, 845, ISC, SP, São Paulo

A.M. Amorim, 8103, RB, 582050,  (RB00797947), BahiaA.R. Reitz, 3449, US, Santa Catarina, **Typus**

Shirasuna, R.T., 20, SP, São Paulo

F. O. Zuloaga, 2417, US, Espírito Santo

Silva & Cruz, 2410, ISC, MBM, Paraná

Silva & Barbosa, 2428, ISC, MBM, Paraná

G. Pabst, Yunker & Emmerich, 7066, RB, Rio de Janeiro

E. Pereira, 7206, US, Rio de Janeiro

Clark & Windisch, 860, ISC, MBM, Santa Catarina

H. Luederwaldt, s.n., US, São Paulo

J. Mattos, 9097, US, São Paulo

L. Clark, 730, RB, 376363,  (RB00613878), São Paulo

Chusquea imbricata Pianiss., L.G. Clark & Santos-Gonç.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** pilose; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** mucicous; **apex of the glume 2** apiculate/short subulate; **apex of the glume 3** short subulate/subulate; **apex of the glume 4** subulate; **lemma** 7 veins/apex free/awned; **pale** 4 veins/weakly 2 keeled/2 mucronate/pubescent.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph. Culms (2.5-) 5-7 m tall, erect; internodes 14-20cm long, 0.5-2.3 cm in diameter, sulcate above the bud/branch complement, pubescent below the nodes when young, glabrous when mature, the sulcus pubescent, waxy elsewhere, without a diffuse band of white wax just below the nodal line. Culm leaves (20-) 33-55 cm long, caducous; sheaths (12.8-) 28-32 cm long, 1.3-2.4 times as long as the blade, more or less rectangular, abaxially setose at the base, becoming strigose and strigillose toward the apex, these longer trichomes always intermixed with barbellate trichomes, ciliate intermixed with ciliolate hairs; blades 7.5-23 cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially glabrous or commonly with barbellate and strigillose trichomes at the base and the apex, the apex acuminate; girdle absent; inner ligule 0.5-1.6 mm long, erose, ciliolate. Nodes slightly swollen; nodal line more or less horizontal; triangular central bud more or less linearly subtended by 5-20 subsidiary buds. Branching intravaginal; central branch 14-24 cm long, erect or initially erect becoming almost horizontal; rebranching; 14-24 subsidiary branches per node, 8-68 cm long, erect or initially erect to becoming almost horizontal, rebranching near the base. Foliage leaves 3-12 per complement; sheaths persistent, finely pubescent to pubescent between the nerves, nerves not prominent; outer ligule a minute rim, pubescent or rarely glabrous; inner ligule 0.05-0.3 mm long, truncate, finely ciliolate; pseudopetiole 0.15-0.53 mm long, not very distinct; blades 2.5-4 cm long, 0.15-0.28 (-0.35) cm wide, and L:W = (8-) 10-17.3 on vegetative branches, (1.3-) 1.8-2.5 (-6.4) cm long, 0.2-0.25 (-0.35) cm wide and L:W = (6.75-) 10-15 (-19) on reproductive branches, lanceolate, apex navicular-subulate, base cuneate to narrowly cuneate, margins scabrous. Synflorescences 0.8-2.5 (-3.5) cm long, 0.4-0.8 cm wide, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis and branches angular, pubescent; branches 0.7-1.7 cm long, appressed; pedicels 1.2-4.2 mm long, angular, pubescent to scaberulous. Spikelets 5.1-7.1 mm long, more or less terete; glume I 0.2-0.5 mm long, < 1/12 the spikelet length, scalelike; glume II 0.5-1.5 (-1.9) mm long, 1/10-1/4 of the spikelet length, apex acute to mucronate; glume III (2.5-) 3-4.1 mm long including the awn, 1/2-2/3, apex mucronate to awned, awn less than 0.8 mm long, 3-5-nerved; glume VI 2.9-4.5 mm long including the awn, 1/2-2/3 the length of the spikelet, awn 0.4-1 mm long 5-7-nerved; lemmas 5.3-7 mm long including the awn, mucronate to awned, awn 0.8-1.2 mm long, apex free, 7-nerved; palea 5.3-6.8 mm long, subequal to the lemma, bimucronate, 4 (6)-nerved, 2-keeled, sulcate only toward the apex. Lodicules 3, ciliate; the anterior pair ca. 1-1.7 mm long, the posterior one ca. 0.5-1.2 mm long. Stamens 3; anthers 1.9-3 mm long, yellow. Fruit unknown. Habitat in a boggy area, in montane Atlantic forest vegetation at ca. 1460 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación







Bosques Ribereños o de Galería, Bosque Estacional Semidecidual

Distribución Geográfica

Ocurrencias confirmadas

Sudeste (Minas Gerais)

MATERIAL TESTIMONIO

Picanço, M.M., 36, HUEFS, 238712,  (HUEFS0238712), Minas Gerais, **Typus**
Pianissola, E.M., 94, HUEFS, 238720,  (HUEFS0238720), Minas Gerais, **Typus**
Pianissola, E.M., 93, HUEFS, 238721,  (HUEFS0238721), Minas Gerais, **Typus**
Pianissola & Silva, 95, VIC, HUEFS, 238719,  (HUEFS0238719), Minas Gerais
Silva, A.P., 263, HUEFS, 238718,   (HUEFS0238718), Minas Gerais, **Typus**

BIBLIOGRAFIA

Pianissola, E. M., PARMA, D. F., SANTOS-GONÇALVES, A. P., & CLARK, L. G. 2018. Two new species of *Chusquea* subg. *Swallenochloa* (Poaceae: Bambusoideae: Bambuseae) from Minas Gerais, Brazil, and complete description of *C. caparaoensis*. *Phytotaxa*, 358(3), 235-250.

Chusquea juergensii Hack.

Tiene como sinónimo

heterotípica *Chusquea swallenii* McClure & L.B.Sm.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** extravaginal; **bud main** developed/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s) spathaceous** absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** short subulate/subulate; **apex of the glume 4** short subulate/subulate; **lemma** 7 veins/glabrous/apex free/awned; **pale** 4 veins/weakly 2 keeled/2 mucronate/glabrous.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph. **Culms** 2-4(5) m tall, erect, often slightly arching at the apex; internodes 11-19 cm long, 0.7-1.5 (2.5) cm in diameter, more or less terete, glabrous, white waxy band below the node absent. **Culm leaves** 13.8-24 cm long, caducous; sheaths 9-19.5 cm long, 1.6-5 (9) times as long as the blade, more or less rectangular, abaxially glabrous, margins glabrous; girdle 0.5-1 mm wide, glabrous; inner ligule 1-3 mm long, ciliolate; blades 1.4-6 cm long, triangular to narrowly triangular, non-pseudopetiolate, erect, persistent, abaxially and adaxially glabrous or retrorsely scabrous, the apex subulate, flat, the margins glabrous. **Nodes** at mid-culm with one triangular central bud only slightly larger than the 4 or 5 more robust subsidiary buds that flank it, this tier of buds subtended by 4 or 5 tiers of medium- and small-sized subsidiary buds; nodal line dipping slightly below the bud/branch complement; supranodal ridge slightly swollen. **Branching** modified extravaginal; central branch 0.4-0.9 m long, ascending or divergent, rebranching; leafy subsidiary branches of two to three sizes, the smaller subsidiaries 25-50 per node, 4-23 cm long, ascending or divergent, rebranching, the more robust medium to large subsidiaries 4-16 per node, 16-60 cm long, ascending or divergent, rebranching. **Foliage leaves** 5-9 per complement; sheaths deciduous, maculate with light green spots, glabrous, sometimes pubescent between the nerves, the margins scarios, glabrous, nerves prominent; outer ligule 0.1-0.5 mm long, glabrous to ciliolate; inner ligule 0.2-0.5 mm long, truncate, glabrous or pubescent, often ciliolate; pseudopetiole (0.5) 1-2 mm long, distinct; blades (3.5) 4.9-10.3 cm long, (0.3) 0.5-1.2 cm wide, L:W = 6.5-11.2 (13), lanceolate, not tessellate, green, adaxially glabrous, abaxially usually glabrous, rarely pilose, base rounded to rounded-attenuate, margins scabrous, apex mucronate to short subulate. **Synflorescences** 1-3 cm long, 0.6-1.5 cm wide, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis, branches, and pedicels angular, scabrous-pubescent to just the edges scabrous, pedicels 2-6 mm long, appressed. **Spikelets** 6.9-8.7 mm long, dorsally compressed, glabrous; glume I and II 0.1-0.4 mm long, less than 1/20 the spikelet length, scalelike, nerves absent; glumes III and IV mucronate or subulate; glume III 2.4-3.3 mm long, 1/3-1/2 the spikelet length, 1- or 3-nerved; glume IV 3.3-3.6 mm long, 1/2-3/5 the spikelet length, 3-nerved; lemmas 6.1-7.2 mm long, mucronate to short subulate, apex free, 7-nerved; paleas 6.4-7.6 mm long, overtopping the lemma, sulcate only near the apex, bimucronulate, 4-nerved. **Lodicules** unknown. **Stamens** unknown. **Caryopsis** 2.8 mm long, dark purple. **Habitat** in gallery forests and high altitude grasslands associated with *Araucaria* formations, nearly always along streams and rivers; 200 to 1,500 m elevation.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, No es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico, Pampa

Tipos de Vegetación

Bosques Ribereños o de Galería, Selva Ombrófila, Selva Ombrófila Mixta

Distribución GeográficaOcurencias confirmadas

Sudeste (Minas Gerais, São Paulo)

Sur (Paraná, Rio Grande del Sul, Santa Catarina)

MATERIAL TESTIMONIOL. Clark, 737, SJRP,  (SJRP00012685), Minas Gerais
Clark, L.G., 897

J. Valls, 2669, K (K001106341), Rio Grande del Sul

Jurgens, C., 322, W, Rio Grande del Sul, **Typus**

Funez, L.A., 3918, FURB (FURB50296), Santa Catarina

Korte, A., 6899, FURB (FURB38835), Santa Catarina

Chusquea kleinii A.C.Mota, R.P.Oliveira & L.G.Clark

Tiene como sinónimo

heterotípica *Chusquea capituliflora* var. *pubescens* McClure & L.B.Sm.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform/spot not uniform; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous/scabrous/hispid below node; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted/capitate; **bract(s) spathaceous** present/1; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** obtuse; **apex of the glume 4** obtuse; **lemma** 7 veins/9 veins/pilose/glabrous/apex connate/apex obtuse; **pale** 4 veins/6 veins/weakly 2 keeled/apex obtuse/pubescent.

DESCRIPCIÓN ADICIONAL

Culms 5–8 m long, scandent; internodes 26–50 cm long, 0.3–0.8 cm in diameter, terete, uniformly green when young, becoming slightly discolored with age to brown, hispid below the node, white waxy band absent. **Culm leaves** 19–45 cm long, persistent, juncture of sheath and blade abaxially obscure; sheaths 15–40 cm long, 3–9 times as long as the blade, abaxially hispid-scabrous, midrib abaxially visible toward the apex, margins ciliate; girdles 2–7 mm long, hispid-scabrous, straw-colored to dark brown, usually more or less similar to the sheath; inner ligules 0.5–2 mm long, irregular, ciliate; blades 3–10 cm long, narrowly triangular, non-pseudopetiolate, adaxially pubescent, abaxially scabrid, apex flat, acuminate, margins glabrous. **Nodes** at mid-culm with one dome-shaped central bud subtended by 4–12 smaller subsidiary buds in 1–2 constellate rows; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible as a line but not usually prominent. **Branching** infravaginal; the central branch when developed as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches 7–12 per node, 28–40 cm long, 1–2 mm in diameter, geniculate, usually rebranching from the lower nodes, girdles brown to purple-black, pubescent. **Foliage leaves** 3–7 per complement; sheaths persistent, striate, keeled toward the apex, pubescent to pilose, usually straw-colored, the overlapping margin ciliate, summit extension 0.8–1 mm long, ciliate; outer ligules 0.2–0.5 mm long, unlobed to bilobed, erect, extending as a mere rim along the juncture of the summit extension and the inner ligule, glabrous; inner ligules 1–2 mm long, rounded to truncate, pubescent; pseudopetioles 2–3 mm long, adaxially glabrous, abaxially scabrous-pubescent, pulvinus usually darker, otherwise green; blades 11.6–13.1 cm long, 1.4–1.6 cm wide, L:W 4–11, lanceolate, not tessellate, green, adaxially glabrous, abaxially pubescent or with basal tuft of hairs present, the base rounded-attenuate, slightly asymmetrical, midrib slightly excentric to excentric (1.1–1.5), adaxially visible at 1/2 of its length, abaxially yellowish and ± prominent for about 2/3 of its length, the margins glabrous to scabrous; the apex acuminate. **Synflorescences** (1–) 1.5–2.5 cm long, 1.5–2 cm wide, capitate paniculate, fully exerted but closely subtended by the subtending bract, borne on leafy branches only, subtended by one spatheate bract, sheaths 1.3–2.2 cm long, blades (1–) 2.8–5.6 cm long, green; main axis angular, straight, pubescent; branches 0.3–1 cm long at the base, angular, pubescent, subtended by small bracts, that subtending the first branch 0.4–1.2 cm long, attenuate, sometimes spathe-like with the sheath 0.7–0.8 cm long and the blade 1–1.2 cm long, green, those subtending the higher branches 0.1–0.8 (–) mm long; pedicels 0.5–2 mm long, angular, pubescent, often subtended by minute bracts. **Spikelets** 7–8.5 mm long, more or less laterally compressed; glumes I and II awned, ± keeled, abaxially pilose; glume I 2.5–3.5 mm long, 1/4–1/3 the spikelet length, 1- or 3-nerved, the awn 1–2.5 mm long; glume II 3–3.5 mm long, 1/4–1/3 the spikelet length, 3- or 5-nerved, the awn 0.7–2.3 mm long; glumes III and IV obtuse, abaxially pilose on the upper 1/2, 5-, 7- or 9-nerved; glume III 3–4.5 mm long, 1/3–1/2 the spikelet length, shortly subulate; glume IV 6–7 mm long, 3/4 the spikelet length; lemma 7.5–8.5 mm long, obtuse, margins connate just at the apex, pilose on the upper 1/2, 7- or 9-nerved; palea 7.5–8.5 mm long, more or less obtuse, pubescent at the apex, 4- or 6-nerved, weakly 2-keeled, sulcate only near the apex, the sulcus scabrid. **Lodicules** 3; the anterior pair ca. 2 mm long, the posterior one ca. 1.7 mm long. **Anthers** 4–5.7 mm long. **Fruit** not seen. **Habitat** in montane Atlantic forest at 500–1,240 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlântico

Tipos de Vegetación

Selva Ombrófila



















Distribución Geográfica


Ocurrencias confirmadas

Sudeste (Rio de Janeiro, São Paulo)

Sur (Paraná, Rio Grande del Sul, Santa Catarina)

MATERIAL TESTIMONIO

F. A. McClure, 21290, NY,  (NY01048076), Rio de Janeiro
 F. A. McClure, 21290, NY,  (NY01048075), Rio de Janeiro
 L. Clark, 677, RB,   (RB00964831), Rio de Janeiro
 Sucre, D., 10596, HUEFS (HUEFS0176409), Rio de Janeiro
 Barros, WD de, 1067, IAN (IAN066773), Rio de Janeiro
 R.M. Klein, 572, UFSC (HBR0008298), Santa Catarina, **Typus**
 Lucas, E.J., 470, HUEFS (HUEFS0162540), Rio de Janeiro
 R.J.F.Garcia, 69, PMSP (PMSP003156)
 Sucre, D., 10596, HUEFS (HUEFS0150722), Rio de Janeiro
 R. Reitz, 6203, NY,  (NY00650344), Santa Catarina
 F.A. McClure, 21290, K,  (K000925226), Rio de Janeiro
 T. Sendulsky, 1424, K,  (K000925225), São Paulo
 F.A. McClure, 21290, K,  (K000925227), Rio de Janeiro
 F. C. Hoehne, 17392, NY,  (NY00650343), São Paulo
 J.M. Silva, 4178, HCF (HCF000028311), Paraná
 Silva, JM, 3633, MBM (MBM276780), São Paulo
 D. Sucre, 10596, K,  (K000925223), Rio de Janeiro
 Zanin, A., 1619, FLOR (FLOR0038500), Santa Catarina
 Liebsch, D, 001, HUCP,  (HUCP00004997), Santa Catarina
 Silva, JM, 4178, MBM (MBM304543), Paraná
 Silva, J.M., 4178, HUFU,  (HUFU00031443), Paraná
 Tatiana Sendulsky, 1424, CEN (CEN00007704), São Paulo
 D. Batista, s.n., CRI (CRI006772)
 L. Clark, 788, SJRP,  (SJRP00012589), Rio de Janeiro
 L. Clark, 847, SJRP,  (SJRP00012597), São Paulo
 Reitz, s.n., CRI (CRI006774)
 R. M. Klein, 572, NY,  (NY00650346), Santa Catarina, **Typus**
 Sendulsky, T, 1369, UB (UB0016439), São Paulo
 Sendulsky, T., 1423, HUFU,  (HUFU00074389), São Paulo
 Oliveira, A.A. de, 2037, FURB (FURB38824), Santa Catarina
 Oliveira, A.A. de, 1118, RB,  (RB01385587), Santa Catarina
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 Kurtz, B.C., 84, HUEFS (HUEFS0150740), Rio de Janeiro
 Tatiana Sendulsky, 1369, CEN (CEN00007693), São Paulo
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 Longhi-Wagner & Schmidt, 10089, ICN, Rio Grande del Sul
 Longhi-Wagner & Schmidt, 10311, ICN, Rio Grande del Sul
 . Citadini-Zanette, V., s.n., ICN, 45400, Rio Grande del Sul
 H. C. de Lima, 3689, NY,  (NY00651115), Rio de Janeiro
 E.J. Lucas, 598, K (K001106301), Rio de Janeiro
 E.J. Lucas, 470, K (K001106304), Rio de Janeiro
 E.J. Lucas, 470, K (K001106305), Rio de Janeiro

R.M. Klein, 572, US (NY00650346), Santa Catarina, **Typus**
D. Liebsch, 1, HCF (HCF000026686), Santa Catarina
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Oliveira, A.A. de, 1118, FURB (FURB38843), Santa Catarina
Oliveira, A.A. de, 1304, FURB (FURB38826), Santa Catarina
Longhi-Wagner & Schmidt, 10315, ICN, Rio Grande del Sul
Silva & Abe, 4178, Paraná
F.A. McClure, 21290, RB, Rio de Janeiro
L. Clark et al., 809, RB, SJRP, Rio de Janeiro
L. Clark et al., 788, RB, Rio de Janeiro
D. Sucre et al., 10657, RB, Rio de Janeiro
L. Clark et al., 675, RB, Rio de Janeiro
L. Clark et al., 681, RB, Rio de Janeiro
B.R. Reitz & R.M. Klein, 6203, US, NY, Santa Catarina
A. Mota, 346, HUEFS, Santa Catarina
A. Mota, 349, HUEFS, Santa Catarina
L. Clark & P. Windisch, 847, SJRP, São Paulo
Silva et al., 3633, MBM, São Paulo
L. Clark & P. Windisch, 728, SJRP, São Paulo
Hoehne, 17392, US, São Paulo
Garcia, 69, SPF, São Paulo
Garcia, 99, SPF, São Paulo
T. Sendulsky, 1289, SP, São Paulo
T. Sendulsky, 1369, SP, CEN, GUA, São Paulo
T. Sendulsky, 1424, SP, CEN, GUA, São Paulo
T. Sendulsky, 1431, SP, São Paulo

BIBLIOGRAFIA

- Mota, A.C., Oliveira, R.P., Carvalho-Sobrinho, J.G., Vidal, K.V.A. & Clark, L.G. (2017) *Chusquea kleinii*, a new bamboo from the Atlantic forests of Brazil segregated from *C. capituliflora* (Poaceae: Bambusoideae). *Phytotaxa* 313(2): 166–174.
- Mota, A.C. (2013) *Sistemática de Chusquea subgênero Rettbergia (Bambusoideae, Poaceae)*. Doctoral thesis, Universidade Estadual de Feira de Santana. 272 pp.

Chusquea leptophylla Nees

És sinónimo

basiónimo *Arthrostylidium leptophyllum* (Nees) Döll

basiónimo *Arundinaria leptophylla* (Nees) Hack.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** linear; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** mucicous; **apex of the glume 4** mucicous; **lemma** 7 veins/pubescent/scabrous/apex free/mucicous; **pale** 4 veins/2 mucronate.

DESCRIPCIÓN ADICIONAL

Rhizomes unknown but probably pachymorph. **Culms** 3-8 m long, erect at the base and arching to scandent above; internodes 12-30 cm long, 1-2 (-3) cm in diameter, terete, glabrous to scabrous where exposed, white waxy band to 1 cm long present but often wearing away with age. **Culm leaves** 13.3-40.4 cm long, persistent, abaxially the juncture of the sheath and blade obscure; sheaths 10.8-30 cm long, 2.7-5.4 (-7) times as long as the blade, retrorsely scabrous to appressed pilose-hispid at the base, trichomes becoming sparser toward the mid-portion and then glabrous above, often tessellate toward the apex, overlapping margin fused at the base for 2-2.5 (-5) cm, sheath summit extensions occasionally present, 1.5-5 mm long; girdle 1.5-5 mm long; inner ligule 0.5-2.5 mm long; blades 2.5-8.8 (-10.5) cm long, triangular to broadly triangular, ± rounded toward the apex, non-pseudopetiolate, abaxially glabrous and often tessellate, apex flat, long mucronate, mucro 5-6 mm long. **Nodes** at mid-culm with one broadly triangular central bud, appearing circular in outline, subtended by 50-60 smaller, subequal subsidiary buds in 3-4 constellate rows, often curving around the central bud to within 3-4 mm of the supranodal ridge; nodal line dipping below the bud/branch complement; supranodal ridge ± prominent. **Branching** infravaginal; central branch often developing, more or less horizontal to ascending; subsidiary branches 50-80 (-100) per node, 15-28 cm long, 0.5-1 mm in diameter, spreading. **Foliage leaves** 4-6 per complement; sheaths persistent, glabrous, margins not scarious, the overlapping margin sparsely ciliate, summit extension 0.2-0.5 (-1) mm, the underlapping margin mostly or entirely glabrous, sometimes ciliate at the apex, the summit extension 0.5-1.5 (-3) mm, confluent with the inner ligule; outer ligules 0.1-0.5 mm long, erect, somewhat irregular, glabrous or ciliate; inner ligules 0.3-1 (-4) mm long, irregularly truncate; pseudopetioles 0.7-1 (-1.5) mm long, glabrous, stramineous; blades 7.2-14.3 cm long, 0.2-0.4 (-0.7) cm wide, L:W = (16-) 22-40 (-52), linear, not tessellate, green, adaxially glabrous, abaxially glabrous except for a linear tuft of cilia 1-3 mm long at the base on one side of the midrib, base attenuate on the side with the tuft, the other side rounded-attenuate, midrib visible abaxially for the full length, margins smooth at the base, becoming irregularly scabrid above the lower 1/3, apex setose. **Synflorescences** 4-9 cm long, 4-8 cm wide, paniculate, open, borne on leafy subsidiary branches only, subtended by 1-2 non-spatheate bracts with reduced leaves; rachis and primary branches angular, the edges hispid, otherwise pubescent; primary branches in the lower 1/2-2/3 reflexed at maturity, the secondary and higher order branches (including pedicels) appressed to the primary branches, the lowermost primary branch 2.5-5.5 cm long, the next lower 3.5-5 cm long, the next lower 1.5-2 cm long, and the next lower 0.5-1 cm long; pedicels 0.5-3.5 mm long, angular, scabrid. **Spikelets** 6.4-7.9 (-8.3) mm long, 1.1-1.3 mm wide, terete to weakly dorsally compressed; glumes I and II scalelike, obtuse, nerves absent; glume I 0.1-0.2 mm long, < 1/20 the spikelet length; glume II 0.1-0.4 mm long, no more than 1/15 the spikelet length; glumes III and IV ciliate at the apex, abaxially scabrous-pubescent toward the apex, mucronate, mucro 0.1-0.2 mm long, 3-nerved; glume III 3.5-4.9 mm long, 3/5-2/3 the spikelet length; glume IV 4.2-5.5 mm long, 2/3-3/4 the spikelet length; lemma 5.9-7.3 mm long, ciliate at the apex, abaxially pubescent for the upper 1/3, mucronate, mucro 0.1-0.2 mm long, apex free, 7-nerved; palea 5.5-7.3 mm long, bimucronulate, 2-keeled, sulcus scabrid, 4-nerved. **Lodicules** 3. **Stamens** not seen. **Gynoeceum** not seen. **Fruit** not seen. **Habitat** in montane Atlantic forest, cloud forest and, to the south, *Araucaria* forests, and also persisting in secondary vegetation at (700-) 1,000-1,800 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativo, Es endêmica de Brasil

Domínios Fitogeográficos

Bosque Atlântico

Tipos de Vegetación

Bosques Ribereños o de Galería, Selva Ombrófila Mixta

Distribución Geográfica

Ocurrencias confirmadas


Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)




Sur (Paraná, Rio Grande del Sul, Santa Catarina)




MATERIAL TESTIMONIO


M.R. Pirotobom-Silva, 4128a, SJRP,  (SJRP00012817), Minas Gerais


P.G. Windisch, 8278, SJRP,  (SJRP00012786), Minas Gerais


L. Clark, 1059, SJRP,  (SJRP00012831), São Paulo


G. Hatschbach, 47089, US, 3177845,  (US00291186), UPCB, 19678,  (UPCB0039661), NYBG, 650329,  (NY00650329),

MBM, 89473,  (MBM089473), INPA, 159592,   (INPA0159592), Paraná


P. Windisch, 5639, RB, 376332,  (RB00613831), Paraná

G. Hatschbach, 47089, K,  (K000925309), Paraná


G. Hatschbach, 47089, K,  (K000925308), Paraná

B. Ollgaard et Windisch, 8278, SJRP,  (SJRP00012800), Minas Gerais

José Francisco Montenegro Valls, 2388, CEN (CEN00004518), Rio Grande del Sul

F. Sellow, s.n., K, 3177845,  (K000433258), **Typus**

Clark, LG et al., 786, MBM (MBM194588), RB, SJRP (SJRP0001254), ISC, Rio de Janeiro

Clark, L., 773, SJRP,  (SJRP00012628), Minas Gerais

Clark, LG, 773, MBM (MBM194614), Minas Gerais

A.R. Reitz, 6717, US, Santa Catarina

L.B. Smith, 15469, K, US, Santa Catarina

L. Clark & P. Windisch, 882, SJRP, Rio Grande del Sul

L. Clark & P. Windisch, 1065, SJRP, São Paulo

L. Clark & M. Morel, 697, SJRP, Minas Gerais

L. Clark & P. Windisch, 740, SJRP, Minas Gerais

L. Clark & M. Morel, 835, SJRP, Minas Gerais

G. Hatschbach, 31119, MBM, K, Paraná

A. Chase, 8309, US, Rio de Janeiro

L. Clark et al., 684, RB, Rio de Janeiro

J.P. Lanna Sobrinho, 1715, US, Rio de Janeiro

T.R. Soderstrom, 1931, US, Rio de Janeiro


L. Clark & M. Morel, 616, SJRP, São Paulo

J. Mattos, 15284, US, São Paulo

L. Clark & M. Morel, 619, SJRP, São Paulo

L. Clark & M. Morel, 745, SJRP, São Paulo

L. Clark & P. Windisch, 653, SJRP, São Paulo

L. Clark, 773, SJRP,  (SJRP00012626), Minas Gerais

BIBLIOGRAFIA

Smith, L.B.; Wasshausen, D.C.; Klein, R.M. Gramíneas (1. Bambusa até 44. Chloris). In: Reitz, P.R. (ed.) Flora Ilustrada Catarinense, 1981. 435p. (p.98-100).

Chusquea linearis N.E.Br.

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect/scandent; **colour** uniform; **branching** extravaginal; **bud main** triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** spiciform/contracted; **bract(s)** spathaceous absent; **apex glume 1** obtuse; **apex of the glume 2** apiculate; **apex of the glume 3** not observed; **apex of the glume 4** not observed; **lemma** 7 veins/apex free/apex acute; **palea** 4 veins/2 keeled.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph. **Culms** erect or scandent, 0.5-2 m tall, slender; internodes 2-7 cm long, 3-4 mm in diameter at the culm base, glabrous, uniform in color, band of white wax absent. **Culm leaves** with the sheaths 3-4 cm long, abaxially glabrous, the blades apparently minute. **Nodes** at mid-culm with a triangular central bud subtended by 4-8 smaller, subequal subsidiary buds; nodal line more or less horizontal; supranodal ridge slightly swollen. **Branching** extravaginal; subsidiary branches 4-10 per node, 8-12 cm long, spreading. **Foliage leaves** 10-18 per branch; sheaths persistent, striate, glabrous to puberulent, summit with short extensions; outer ligules ca. 0.2 mm long, spreading, ciliolate-membranous; inner ligules 0.5-0.7 mm long, acute; pseudopetioles ca. 1 mm long, not well-differentiated from the base of the blade; blades 2-10 cm long, 0.3-1 cm wide, lanceolate, green, firm, flat to folded or inrolled when dried, minutely ciliate-scabrid along one margin, the apex often subulate to pungent. **Synflorescences** 4-7 cm long, racemose, contracted, bearing 3-6 (-15) spikelets, borne on leafy branches only, spatheate bracts absent. **Spikelets** 6.5-8 mm long, laterally compressed; glumes I and II oblong, 1-nerved; glume I 1-1.5 mm long, obtuse; glume II 3-5 mm long, short-aristate or not, puberulent; glumes III and IV subequal, 6-7.5 mm long, ca. $\frac{3}{4}$ the spikelet length, oblong-lanceolate, acute, 5-7-nerved, more or less pubescent dorsally and ciliate at the apex; lemma 6-7 mm long, lanceolate-ovate, whitish, obtuse, apex free, pubescent and ciliate at the apex, weakly 7-8-nerved; palea ca. 5 mm long, oblong-ovate, ciliate at the apex, 4-nerved. **Anthers** ca. 1 mm long. **Gynoecium** with styles 2, stigmas plumose. **Fruit** not seen. **Habitat** in shrublands or on rocky slopes at 1,500-2,600 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, No es endémica de Brasil

Domínios Fitogeográficos

Amazonas

Tipos de Vegetación

Campo Rupestre

Distribución Geográfica

Ocurrencias confirmadas

Norte (Roraima)

MATERIAL TESTIMONIO

McConnell & Quelch, 677, K, Roraima, **Typus**

Chusquea longispiculata L.G.Clark

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** present. **Leaf: form of the leaf of the shoot** lanceolate; **leaf of the culm** differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/open; **bract(s)** spatheaceous present/2; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** muticous/awned; **apex of the glume 4** muticous/awned; **lemma** 7 veins/9 veins/glabrous/muticous/awned; **palea** 4 veins.

DESCRIPCIÓN ADICIONAL

Rhizomes unknown. **Culms** (3-) 5-10 (-15) m long, erect at the base then scandent or clambering and hanging; internodes 13-24 cm long, 0.5-2 cm in diameter, terete, glabrous, a white waxy band 4-5 mm wide present below the node and wearing away with age. **Culm leaves** 9.6-19.4 cm long, the juncture of the sheath and blade abaxially a faint line or obscure; sheaths 7.7-14.3 cm long, 2.2-3.6 times as long as the blade, abaxially glabrous, midrib obscure, margins glabrous, the overlapping one fused to the sheath at the base for 0.2-1 cm; girdles 2-5 mm wide, brown to dark brown, glabrous, a small corky ridge present at the juncture with the sheath; inner ligules 0.5-1.5 mm long; blades 3-5.2 cm long, triangular, non-pseudopetiolate, erect, persistent, abaxially glabrous, the midrib evident only toward the apex or less commonly for the upper half, the apex flat, apiculate or mucronate, the margins glabrous. **Nodes** at mid-culm with one triangular central bud subtended by ca. 12-15 smaller subsidiary buds in 1-2 rows, often with a small gap just beneath the central bud, seemingly dividing the buds into two groups; nodal line horizontal but dipping below the bud/branch complement; supranodal ridge visible as a slightly raised line, not prominent. **Branching** infravaginal; central branch frequently developing, emerging more or less erect, then diverging up to 45-60° from the main culm; leafy subsidiary branches (8-9-)11-19(-21) per node, 17-25(-30-36) cm long, (0.7-)1-1.5 mm in diameter, strongly geniculate downward at the base, usually not rebranching. **Foliage leaves** (4-)5-7(-8) per complement; sheaths persistent, glabrous, uniform in color, keeled toward the summit, the margins glabrous, summit extension absent to 1 mm long; outer ligules 0.3-1 mm long, usually bilobed, erect, glabrous; inner ligules 0.5-1 mm long, more or less truncate to irregular but entire, apically ciliolate, abaxially usually finely pubescent pseudopetioles 2-2.5 mm long, glabrous, pulvinus usually developed; blades (6-)7.7-14 cm long, 0.7-1.2 cm wide, L:W = 8.6-14, lanceolate, abaxially weakly tessellate, green, glabrous, an abaxial tuft of hair at the base absent, the base rounded to rounded-attenuate, midrib usually visible abaxially and prominent for nearly the full length, the margins scabrous or one scabrous and the other glabrous or nearly so, the apex acuminate. **Synflorescences** 4-7 cm long, open paniculate, borne on leafy branches only, subtended by 2(-3) spatheate bracts, the first (lower) with sheath 3-5 cm long, expanded, blade 1.2-2.5 cm long, the second (upper) with the sheath 3.9-6.2 cm long, expanded, the blade 0.8-2.4 cm long; rachis angular, glabrous; branches and pedicels angular, glabrous, the ridges scabrid, all subtended by a scar or rim or occasionally a scalelike subtending bract to 1.8 mm long, the primary branches pulvinate, spreading, the lowermost ones strongly divergent to reflexed at maturity and 3-3.5 cm long, the pulvini pubescent, secondary and higher order branches and pedicels appressed to the primary branches; pedicels 2-7 mm long. **Spikelets** (13.5-)14.5-19.2 mm long, more or less dorsally compressed; glumes I and II scalelike, obtuse, glabrous; glume I 0.2-0.3 mm long, < 1/33 the spikelet length; glume II 0.4-0.5 mm long, < 1/25 the spikelet length; glumes III and IV 3/4-9/10 the spikelet length, navicular, mucronate to awned, abaxially glabrous, awn 1.3-2.8 mm long; glume III (7.5-)10.8-13.9 mm long including the awn, 3-5-nerved; glume IV (10.8-)15.3-17.7 mm long including the awn, 3-, 5-, or 7-nerved; lemmas (13.1-)15-17.6 mm long including the awn, navicular, mucronate to awned, apex free, abaxially glabrous, 7- or 9-nerved, the awn ca. 2.2 mm long; paleas 11-16.2 mm long, shorter than the lemma, navicular, biapiculate, glabrous, 4- (or 8)-nerved, sulcate for nearly the full length, sulcus pubescent toward the apex. **Lodicules** 3, apically ciliate; anterior pair 1.6-2.5 mm long, the posterior one 1-2.2 mm long. **Stamens** 3; anthers 6.8-8.1 mm long. **Gynoecium** not seen. **Fruit** not seen. **Habitat** in Atlantic forest at 420-1,000 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlântico








Tipos de Vegetación

Selva Ombrófila

Distribución GeográficaOcurrencias confirmadas

Sudeste (Rio de Janeiro, São Paulo)

MATERIAL TESTIMONIO

Kuhlmann, M., 3140, SP, São Paulo
E.A.L.Afonso, 272, RB,  (RB01411389), Rio de Janeiro
A. Ducke, s.n., RB,  (RB00581163), Rio de Janeiro
Clark, L., 1026, MBM (MBM194539), São Paulo
A. Ducke, s.n., RB,  (RB00581163), Rio de Janeiro
A. Ducke, s.n., RB,  (RB00581313), Rio de Janeiro
A. Ducke, s.n., RB,  (RB00581163), Rio de Janeiro
A. Ducke, s.n., RB,  (RB00581313), Rio de Janeiro
Kuhlmann, M., 3141, SP, São Paulo
L. Clark, 645, SJRP,  (SJRP00012791), São Paulo
Vital, s.n., SP, São Paulo, **Typus**
Kuhlmann, J.G., s.n., US, Rio de Janeiro
Sarahyba et al., 1064, RJ, Rio de Janeiro
Soderstrom, 1180, US, Rio de Janeiro
Clark & Oliveira, 1026, SP, São Paulo
Clark, L.G. & P. Windisch, 645, SP, São Paulo
Dusen, 18105, US, São Paulo

Chusquea meyeriana Rupr. ex Döll

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/triangular/orientation horizontal; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous present/1/2; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** muticous; **apex of the glume 4** muticous; **lemma** 7 veins/pubescent/scabrous/muticous; **pale** 4 veins/2 mucronate.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph. **Culms** 3-5 (-6) m long, erect at the base and arching to scandent toward the apex; internodes 20-28 cm long, 1-4 cm in basal diameter, terete or flattened above the bud/branch complement and becoming terete above, glabrous, glaucous when young, white waxy band absent. **Culm leaves** 14.4-36 cm long, juncture of sheath and blade abaxially a ± horizontal to convex line; sheaths 9-16.8 cm long, 0.8-2 times as long as the blade, abaxially glabrous, overlapping margin fused at the base for 1.5-3 cm, sheath summit extensions usually present, 1-8 (-10) mm long; girdle 1-5 mm long, glabrous, juncture of the sheath and girdle with a short ruffle or ridge; inner ligule 2-7 mm long; blades (5.5-) 8-19 cm long, triangular to slightly cordate at the base, slightly narrower than the sheath apex, erect, caducous, non-pseudopetiolate, apex flat, ± abruptly acuminate. **Nodes** at mid-culm with one broadly triangular central bud, appearing circular in outline, subtended by 12-36 smaller, subequal subsidiary buds in 2-3 constellate rows; nodal line dipping below the bud/branch complement; supranodal ridge a visible small ridge. **Branching** infravaginal; central branch often developing at the upper nodes, extending ± horizontally; subsidiary branches 25-45 per node, rebranching from the base and sometimes also from above the base, 27-35 cm long, ca. 1 mm in diameter, often geniculate at the base, spreading downward or upward. **Foliage leaves** 5-9 per complement; sheaths persistent, usually glabrous, sometimes pubescent or hispid toward the margins and the apex, overlapping margin glabrous or short-ciliate, with a sheath summit extension ca. 1 mm long, the underlapping margin glabrous, with a sheath summit extension 0.6-3 mm long, both extensions confluent with the inner ligule; outer ligules 0.5-1.2 mm long, irregular; inner ligules 1-3.5 mm, irregular; pseudopetioles 1.5-3 mm long; blades 10-18.2 cm long, 0.6-1 (-1.6) cm wide, L:W = 10-20, linear-lanceolate to lanceolate, not tessellate, green, adaxially glabrous, abaxially with a linear tuft of trichomes at the base 2-3 (-4) mm long either mostly on one side of the midrib with a few trichomes on the other side or ± equally distributed on both sides of the midrib, otherwise glabrous, but southern populations (primarily in SC) often pubescent, base attenuate to rounded-attenuate, midrib visible abaxially for the full length, margins scabrous, one often more sparsely so than the other, apex short setose to subulate. **Synflorescences** 5-14 cm long, 6-17 cm wide, paniculate, open, borne on leafy branches only, subtended by 1-2 non-spatheate bracts; rachis and branches angular, hispid-pubescent; the lowermost 2-3 primary branches reflexed to nearly horizontal at maturity, the next higher 1-2 primary branches ± horizontal at maturity, the apical branches and spikelets appressed to the rachis, the secondary and higher order branches (including pedicels) appressed to the primary branches, lowermost branch 3-8 (-11) cm long; pedicels 1.5-8 mm, angular, the edges scabrid. **Spikelets** (7-) 8-11 mm long, 1.2-1.4 mm wide, weakly dorsally compressed; glumes I and II scalelike, no more than 1/20 the spikelet length, obtuse, nerves absent; glume I 0.1-0.2 mm long; glume II 0.2-0.3 mm long; glumes III and IV awned, margins ciliate for the upper 1/3, abaxially scabrous-pubescent for most of the length; glume III 3.6-6.2 mm long including the awn, 1/2-3/5 the spikelet length, awn 0.4-1.3 mm long, 3-nerved; glume IV 3.8-7 mm long including the awn, 3/5-2/3 the spikelet length, awn 0.3-1 mm long, 3-5-nerved; lemma 6.7-7.5 (-9.5) mm long including the awn, the awn 0.3-0.5 mm long, apex free, abaxially scabrous-pubescent for most of the length, 7-nerved; palea 6.5-7 (-9.5) mm long, bimucronulate, 2-keeled, sulcus scabrid, 4-nerved. **Lodicules** 3, acute, apically ciliate; anterior pair 1-1.2 mm long, asymmetrical; posterior one ca. 0.7 mm long, symmetrical. **Stamens** unknown. **Gynoeceum** unknown. **Fruit** unknown. **Habitat** in montane Atlantic forest or secondary vegetation at 800-1,400 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUICIÓN

Nativo, Es endêmica de Brasil

Domínios Fitogeográficos

Bosque Atlântico

Tipos de Vegetación

Bosques Ribereños o de Galería, Bosque Estacional Semidecidual, Selva Ombrófila, Selva Ombrófila Mixta

Distribución Geográfica

Ocurrencias confirmadas


Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sur (Paraná, Rio Grande del Sul, Santa Catarina)

MATERIAL TESTIMONIO



Londono & Sarahyba, 721, RB, Rio de Janeiro

Krapovickas & Cristobal, 35310, US, Minas Gerais

Riedel, 1635, US,  (NY00380462), São Paulo, **Typus**

Chase, A, 10641, IAN (IAN062374), Minas Gerais


L. Riedel, 1635, P (P00625470), São Paulo, **Typus**

L. Clark & M. Morel, 613, RB, 376350, ,  (RB00613896), São Paulo

L. Clark et al., 682, RB, 406269, ,  (RB00613543), Rio de Janeiro

J.M.A. Braga, 1621, RB, 408762, , ,  (RB00475677), Rio de Janeiro

L. Riedel, 1635, NY,  (NY00380462), São Paulo, **Typus**

L. Clark & M. Morel, 655, SJRP,  (SJRP00012804), São Paulo


L. Clark & M. Morel, 834, SJRP, Minas Gerais

L. Clark & W. Oliveira, 930, SJRP, Paraná

L. Clark & P. Windisch, 850, SJRP, Paraná

L. Clark & P. Windisch, 735, SJRP, Minas Gerais

F.O. Zuloaga et al., 2385, US, Minas Gerais

L. Clark et al., 787, SJRP,  (SJRP00012811), Rio de Janeiro

Chusquea microphylla (Döll) L.G. Clark

Tiene como sinónimo

basiónimo *Chusquea heterophylla* var. *microphylla* Doell

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** extravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous/pubescent; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/contracted; **bract(s) spathaceous** absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** subulate; **apex of the glume 4** subulate; **lemma** 5 veins/7 veins/muticous; **palea** 4 veins/2 mucronate.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 0.5-1 m tall, erect; internodes with the basal ones 4.5-13.5 cm long, the distal ones 1.5-7 cm long, 0.3-0.5 cm in diameter, terete, more or less waxy, pubescent just below the nodes, otherwise glabrous, white waxy band absent. **Culm leaves** 5.5-11 cm long, persistent, abaxially glabrous, juncture of sheath and blade abaxially an obscure, inverted "V"; sheaths 3.4- 9.4 cm long, 1.6-6.2 times as long as the blade, fused for ca. 1 cm at the base, the margins glabrous; girdle ca. 1 mm wide, glabrous; inner ligule 0.5 mm long; blades 0.9-2.5 cm long, triangular, erect, persistent, apex mucronate to subulate, flat. **Nodes** at mid-culm with the one triangular central bud flanked by one robust subsidiary bud on each side, these subtended by 5 or 6 tiers of smaller subsidiary buds totaling 30-60 buds; nodal line dipping below the branch complement; supranodal ridge obscure; root primordia absent. **Branching** extravaginal; central bud not developing; leafy subsidiary branches 30-60 per node, 1.5-5 cm long, horizontal to curving upwards, not re-branching. **Foliage leaves** 4-7 (-12-15) per complement; sheaths persistent, pubescent between the nerves, glabrescent; outer ligule ca. 0.1 mm long, ciliolate; inner ligule 0.2-0.5 mm long, truncate or slightly rounded; pseudopetiole 0.2-0.5 mm long; blades 0.8 5-2 cm long, 0.1-0.2 (-0.3) cm wide, L:W = 5-12, stiff, not tessellate, green, glabrous, base rounded-cuneate, apex subulate. **Synflorescences** 1-1.5 cm long, paniculate, narrow, the base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis angular, pubescent; branches and pedicels angular, pubescent, appressed, the pedicels 1- 3 mm long. **Spikelets** 4.7-5.5 mm long, 1.2-1.5 mm wide, slightly farinose when young, more or less terete to slightly dorsally compressed; glumes I and II scalelike, obtuse, abaxially scabrid-pubescent, nerves absent; glume I 0.4-0.8 mm long, less than 1/10 the spikelet length; glume I 10 .6-1.2 mm long, ca. 1/8 the spikelet length; glumes III and IV 2.9-4 mm long, subulate, abaxially scabrid-pubescent on the upper one-half, 1-, 3-, or 5-nerved; glume III 1/2-2/3 the spikelet length; glume IV 3/4-4/5 the spikelet length; lemma 4.5- 5.5 mm long, mucronate, abaxially scabrid-pubescent toward the apex, 5- or 7-nerved; palea 4.5-5.3 mm long, subequal to the fertile lemma, sulcate toward the apex, bimucronulate, 4-nerved. **Lodicules** unknown. **Stamens** 3; anthers 2.5-2.7 mm long. **Fruit** unknown. **Habitat** on rocky outcrops in high elevation grassland at 2,300-2,600 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación









Campo de altitud

Distribución Geográfica

Ocurrencias confirmadas

Sudeste (Minas Gerais, Rio de Janeiro)

MATERIAL TESTIMONIO

Cavada, B.S., s.n., EAC (EAC0021325), Rio de Janeiro
Cavada, B.S., s.n., EAC (EAC0021328), Rio de Janeiro
D.R. Couto, 3951, RB,  (RB01399037), Rio de Janeiro
A.C. Brade, 15632, RB, 32949,  (RB00613830), Rio de Janeiro
Campos Porto, P., 1117, RB, 78976,   (RB00613773), Rio de Janeiro
Campos Porto, P., 1117, RB,  (RB01057267), Rio de Janeiro
L.Clark, 633, RB, 406256,  (RB00613829), Minas Gerais
Markgraf, 3728, RB, 39419,  (RB00613833), Rio de Janeiro
A.F.M. Glaziou, 5436, C, Minas Gerais, **Typus**
Clark, L.G., 633, RB, Minas Gerais
Markgraf, 3728, RB,  (RB01057263), Rio de Janeiro

Chusquea mimosa McClure & L.B.Sm.

Este tratamiento consta de los siguientes taxones: *Chusquea mimosa*, *Chusquea mimosa* subsp. *australis*, *Chusquea mimosa* subsp. *mimosa*.

Tiene como sinónimo

heterotípica *Chusquea elegans* Renvoize

DESCRIPCIÓN

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** extravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open/contracted; **bract(s)** spathaceous absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** short subulate/subulate; **apex of the glume 4** short subulate/subulate; **lemma** 7 veins/glabrous/apex free/apiculate; **pale** 4 veins/weakly 2 keeled/2 mucronate/glabrous.

DESCRIPCIÓN ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 2 1.5-4 (5) m tall, erect to somewhat arching at the apices; internodes 9-26 cm long, 0.7-2.5 (3) cm in diameter, more or less terete to slightly flattened above the branch complement, glabrous, waxy, white waxy band absent. **Culm leaves** 12.6-29 cm long, caducous; sheaths 6.9-27.3 cm long, 1.2-27.5 (50) times as long as the blade, more or less rectangular or triangular, abaxially glabrous or retrorsely scabrous toward the apex or densely tomentose with appressed hairs along one shoulder near the apex; girdle (0.5) 1-2 mm wide, glabrous; inner ligule 0.5-6 mm long, ciliate; blades 0.3-5.7 (9.2) cm long, triangular, non-pseudopetiolate, erect, persistent, rarely deciduous, abaxially and adaxially glabrous or retrorsely scabrous, or abaxially glabrous and adaxially scabrid, the apex flat, subulate, the margins glabrous. **Nodes** at mid-culm with the one triangular central bud subtended and partially encircled by 1 or 2 rows of smaller subsidiary buds in a constellate array, with usually two of the subsidiaries robust and much larger than the others; nodal line dipping slightly below the bud/branch complement; supranodal ridge slightly swollen. **Branching** modified extravaginal; central branch 50-75 long, divergent, rebranching; smaller leafy subsidiary branches 15-80 per node, 6-20 cm long, divergent to ascending, occasionally rebranching, the robust subsidiary branches 2 or 3 per node, 26-100 cm long, divergent, rebranching. **Foliage leaves** 5-9 per complement; sheaths deciduous, glabrous, uniform in color, the margins scarious, glabrous or ciliate, nerves slightly prominent or prominent; outer ligule 0.1-0.5 (1) mm long, glabrous or ciliate; inner ligule 0.5-4 mm long, rounded, glabrous or pubescent; pseudopetiole 1-2 (3) mm long, distinct; blades 3.4-11.4 cm long, (0.2) 0.5-0.9 (1.2) cm wide, L:W = (4) 7.5-24, lanceolate, not tessellate, green, adaxially glabrous, abaxially glabrous or less commonly pilose, base attenuate to rounded-attenuate, margins scabrous, apex subulate. **Synflorescences** 1.5-5 cm long, 0.6-1.7 cm wide, paniculate, narrow or the basal branches divergent or all branches and pedicels divergent to recurved and the panicle open, the base usually retained within the subtending sheath, sometimes fully exerted, borne on leafy branches only, subtending spatheate bracts absent; rachis angular, usually scabrous-pubescent at base, only the edges scabrous toward the apex, or less commonly completely scabrous-pubescent or completely glabrous; branches angular, usually glabrous with only the edges scabrid, sometimes completely glabrous to completely pubescent, the lower ones to 1 cm, these appressed or reflexed; pedicels 1.5 mm long, angular, glabrous, the edges scabrid, or completely pubescent, appressed or reflexed, often slightly sinuous. **Spikelets** 4.3-7.5 mm long, sometimes slightly falcate, glabrous; glume I and II 0.1-0.4 mm long, less than 1/20 the spikelet length, scalelike, nerves absent; glumes III and IV 1.8-3.8 mm long, ca. 1/2 the spikelet length, mucronate or subulate, 1- or 3-nerved; lemmas 4.2-6.4 mm long, mucronate, the apex free, 7-nerved; palea 4-6.6 mm long, palea and lemma subequal or the palea overtopping the fertile lemma, sulcate toward the apex, bimucronulate, 4-nerved. Lodicules 3, the anterior pair ca. 0.7 mm long, the posterior one ca. 0.5 mm long, all ciliate. **Stamens** 3; anthers 3-3.7 mm long, yellow. **Fruit** not seen. **Habitat** in canyons, gallery forests, dwarf or cloud forests, or shrubby grasslands, often associated with *Araucaria* formations, frequently along river or streambanks or in marshy areas; (450) 650 to 1,800 m elevation.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endêmica de Brasil

Domínios Fitogeográficos

Bosque Atlântico

Tipos de Vegetación

Bosques Ribereños o de Galería, Bosque Estacional Semidecidual, Selva Ombrófila, Selva Ombrófila Mixta

Distribución Geográfica

Ocurrencias confirmadas








Sur (Paraná, Rio Grande del Sul, Santa Catarina)

CHAVE DE IDENTIFICACIÓN

1. Foliage leaf blades (0.3-) 0.5-0.9 (-1.2) cm wide, L:W = (4-) 7.7-15, base attenuate to rounded-attenuate; subsidiary branches 15-40 per node; spikelets 4.3-6.3 (-7.5) mm long, the fertile floret 0.9-1.4 mm wide; palea and lemma subequal; culm leaf sheaths 1-5 times as long as the blade..... *C. mimosa* subsp. *mimosa*

1. Foliage leaf blades (0.2-) 0.4-0.7 cm wide, L:W = 10.6-23, base attenuate; subsidiary branches 45-80 per node; spikelets (5.5-) 6-7.5 mm long, the fertile floret 1.1-1.6 mm wide; palea and lemma subequal or more commonly the palea overtopping the lemma; culm leaf sheaths (3.5-) 12-27.5 (-50) times as long as the blade *C. mimosa* subsp. *australis*

MATERIAL TESTIMONIO

- L. Clark, 1040, SJRP,  (SJRP00012674), Rio Grande del Sul
 L. Clark, 928, SJRP,  (SJRP00012678), Santa Catarina
 Barbosa, E., 386, HUEFS (HUEFS0064734), Paraná
 Nogaroli, RL, 004, HUCP,  (HUCP00004996), Paraná
 A.R. Reitz, 6139, US, Santa Catarina, **Typus**
 J.C. Lindeman, 3604, RB, 385255,  (RB00613836), Santa Catarina
 L. Clark, 875, SJRP,  (SJRP00012682), Santa Catarina
 Cordeiro, J., 2270, FURB (FURB38816), Paraná
 Clark, LG, 932, MBM (MBM194558), SJRP,  (SJRP00012677), Paraná
 L. Clark, 919, SJRP,  (SJRP00012681), Rio Grande del Sul
 Trevisan, R., 1333, FLOR (FLOR0047846), Santa Catarina
 Silva, J.M., 3804, ESA (ESA086336), Paraná
 A.R. Reitz, 5255

Chusquea mimosa McClure & L.B.Sm. subsp. *mimosa*

DESCRIPCIÓN

Culms 0.7-1.5 cm in diam. Culm leaf sheaths 1-5 times as long as the blade. Smaller subsidiary branches 15-40 per node. Foliage leaf blades (0.3) 0.5-0.9 (1.2) cm wide, L:W = (4) 7.7-15, base attenuate to rounded-attenuate. Panicles (1.5) 2-4 cm long. Spikelets 4.3-6.3 (7.5) mm long, palea and fertile lemma subequal.

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Distribución Geográfica

Ocurrencias confirmadas

Sur (Paraná, Rio Grande del Sul, Santa Catarina)

Chusquea mimosa subsp. *australis* L.G.Clark

DESCRIPCIÓN

Culms 1-2.5 (3) cm in diam. Culm leaf sheaths (3.5) 12-27.5 (50) times as long as the blade. Smaller subsidiary branches 45-80 per node. Foliage leaf blades (0.2) 0.4-0.7 cm wide, L:W = 10.6-24, base attenuate. Panicles 1-3 cm long. Spikelets (5.5) 6-7.5 mm long, palea and fertile lemma subequal or more commonly the palea overtopping the fertile lemma.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUCIÓN

Nativo, Es endémica de Brasil

Domínios Fitogeográficos

Bosque Atlántico

Tipos de Vegetación

Bosques Ribereños o de Galería, Bosque Estacional Semidecidual, Selva Ombrófila, Selva Ombrófila Mixta


Distribución Geográfica






Ocurrencias confirmadas

Sur (Rio Grande del Sul, Santa Catarina)

MATERIAL TESTIMONIO

Clark, L.G., 868, NY,  (NY00650972)

L. Clark, 875, K,  (K000925345), Santa Catarina

T. R. Soderstrom, 2042, US,  (US00010351), US,  (US00010352), US,  (US00010354), US,  (US00010355), US,  (US00010353), Rio Grande del Sul, **Typus**

Clark, L, 1040, MBM (MBM194557), Rio Grande del Sul

Reitz, 7824, MBM (MBM051198), Santa Catarina

Reitz, 14583, MBM (MBM051206), Santa Catarina

Reitz, 16349, MBM (MBM051208), Santa Catarina

Chusquea mirabilis A. C. Mota, R. P. Oliveira & L. G. Clark

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** with spot black; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** spathaceous absent; **apex glume 1** short subulate/acute; **apex of the glume 2** short subulate/acute; **apex of the glume 3** subulate; **apex of the glume 4** subulate; **lemma** 9 veins/scabrous/apex acute; **palea** 2 veins/weakly 2 keeled/scabrous.

DESCRIÇÃO ADICIONAL

Culms 4–8 m long, scandent; internodes 20–41 cm long, 0.15–0.6 cm in diameter, terete, glabrous, blackened or with irregular black splotches, white waxy band absent. **Culm leaves** 14.5–32 cm long, persistent, juncture of sheath and blade abaxially obscure; sheaths 13.6–30.5 cm long, 15.1–20.3 times as long as the blade, abaxially retrorsely scabrous, midrib abaxially prominent toward the apex, margins glabrous; girdles 2–4 mm long, scabrous, brown; inner ligules 0.1 mm long, truncate, glabrous; blades 0.9–1.5 cm long, narrowly triangular, non-pseudopetiolate, adaxially scabrous, abaxially scabrous, midrib abaxially prominent, apex flat, acute, margins glabrous. **Nodes** at mid-culm with one dome-shaped central bud subtended by 18–40 smaller subsidiary buds in 2 stellate rows; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible but not prominent. **Branching** infravaginal; the central branch usually developed, as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches 18–40 per node, 17–24 cm long, 0.5 mm in diameter, geniculate, no rebranching, girdles straw-colored to black-brown, sericeous. **Foliage leaves** 7–11 per complement; sheaths persistent, weakly striate, strongly keeled toward the apex, pilose, usually uniformly light brown, the overlapping margin ciliate or only a tuft of cilia ca. 1 mm long present on each side of the sheath summit, summit extension minimal, to 0.2 mm long; outer ligules 0.2 mm long, unlobed to weakly bilobed, spreading, extending to the margins along the juncture with the inner ligule, glabrous; inner ligules 0.2 mm long, truncate, glabrous; pseudopetioles ca. 1 mm long, scabrous, pulvinus absent, otherwise green; blades 6–13 cm long, 0.35–0.55 cm wide, L:W 17.1–23.6, linear-lanceolate, not tessellate, adaxially green, abaxially glaucous, adaxially sparsely pilose, abaxially with a tuft of hairs, base often slightly asymmetrical, rounded-attenuate, midrib slightly excentric (1.8–2.25:1), adaxially distinguishable at the base, abaxially yellowish and prominent for most of the length toward the apex, the margins scabrous, apex acuminate. **Synflorescences** 2.5–4 cm long, 1–2 cm wide, open paniculate, with primary branches only, just fully exerted from the subtending leaf, borne on leafy branches only, not subtended by a spatheate bract; main axis angular, straight, usually glabrous; primary branches ca. 1 cm long at the base, angular, glabrous, usually basally swollen and spreading, the lowermost one subtended by a acuminate bract ca. 1 mm long, otherwise the branches ebracteate; pedicels 1–1.5 mm long, angular, glabrous, slightly swollen immediately below the spikelet, usually basally swollen and spreading. **Spikelets** 5.9–6.2 mm long, laterally compressed; glumes I and II acute to more commonly shortly subulate, slightly keeled, abaxially scabrous, with ciliate margins, 1- or 3-nerved; glume I 0.8–1 mm long, 0.14–0.16 times the length of the lemma; glume II 1–1.2 mm long, 0.16–0.2 times the length of the lemma; glumes III and IV subulate, abaxially scabrous, ciliate in the margins; glume III 2–2.1 mm long, 0.34 times the length of the lemma, 5-nerved; glume IV 3–3.4 mm long, 0.5–0.56 times the length of the lemma, 5-nerved; lemma 5.9–6.1 mm long, acute, abaxially scabrous, 9-nerved, margins ciliate, slightly fused at most at the apex; palea 5.9–6.2 mm long, ± equaling the lemma, bimucronulate, abaxially scabrous, 2-nerved, 2-keeled, sulcate only toward the apex, the sulcus glabrous. **Lodicules** 3, glabrous; the anterior pair 0.5 mm long, the posterior one 1.0 mm long. **Anthers** ca. 2 mm long. **Fruit** not seen. **Habitat** in montane Atlantic forest at 600–900 m.

Forma de Vida

Bamboó

Substrato

Terrestre

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação

Floresta Ombrófila (Floresta Pluvial)

Distribuição Geográfica

Ocorrências confirmadas



Nordeste (Bahia)

MATERIAL TESTIMONIO

S. C. Santana, 1082, HUEFS, Bahia, **Typus**

S. C. de Sant'Ana, 1082, NY,  (NY01095842), Bahia, **Typus**

W.W. Thomas, 12252, CEPEC, NY,  (NY00886330), Bahia

W.W. Thomas, 12634, SP, CEPEC, NY,   (NY00886335), Bahia

F.M. Ferreira et al., 1785, CEPEC, Bahia

F.M. Ferreira et al., 1616, CEPEC, Bahia

F.M. Ferreira et al., 1669, CEPEC, Bahia

Mota & Carvalho-Sobrinho, 399, HUEFS, Bahia

F.M. Ferreira et al., 1884, CEPEC, Bahia

F.M. Ferreira et al., 1885, CEPEC, Bahia

Amorim, A.M., 3601, HUEFS (HUEFS0176388), Bahia

BIBLIOGRAFIA

Mota, A.C. 2013. Sistemática de *Chusquea* subgênero *Rettbergia* (Bambusoideae, Poaceae). Tese de doutorado Programa de Pós-Graduação em Botânica da Universidade Estadual de Feira de Santana (UEFS). Feira de Santana.

Mota, A.C., Oliveira, R.P. & Clark, L.G. 2014. Increasing the knowledge of Brazilian bamboos: two new species of *Chusquea* subg. *Rettbergia* (Bambusoideae, Poaceae). *Phytotaxa* 161: 201-210.

Chusquea nudiramea L.G.Clark

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** extravaginal; **bud main** developed/circular; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** lanceolate. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 7 veins/9 veins/glabrous/apex free/awned; **pale** 4 veins/2 mucronate/glabrous.

DESCRIÇÃO ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** 2-4 m tall, erect to leaning; internodes 16-22 cm long, 1-1.2 cm in diameter, terete, glabrous, glaucous when young, white waxy band below the node absent. **Culm leaves** 7.5-14 cm long, deciduous as the branches develop, the base often splitting; sheaths 7.2-10.2 cm long, 2-3.3 (6.5) times as long as the blade, more or less rectangular, abaxially glabrous, margins ciliate; girdle 0.5 mm wide, glabrous; inner ligule 0.4 mm long, ciliolate; blades 1-4.6 cm long, straplike, non-pseudopetiolate, articulated with the sheath, erect becoming reflexed, deciduous, abaxially glabrous, adaxially pubescent at the base, the apex mucronate, flat, the margins scabrous. **Nodes** at mid-culm with the broadly triangular (appearing nearly circular) central bud subtended by 1 row of smaller subsidiary buds in a constellate array, two of the subsidiaries robust and larger than the others; nodal line dipping slightly below the bud/branch complement; supranodal ridge slightly swollen. **Branching** modified extravaginal; central branch 0.5-1 m long, divergent, rebranching; 4-10 subsidiary branches per node, 16-23 cm long, more or less ascending, occasionally rebranching, the robust subsidiary branches usually 2 per node, 20-50 cm long, ascending, rebranching. **Foliage leaves** 7-8 per complement; sheaths deciduous, glabrous, uniform in color, glabrous, the margins sparsely ciliate, nerves not prominent; outer ligule 0.5-2 mm long mm long, glabrous; inner ligule 1-3 mm long, rounded, pubescent; pseudopetiole 1.5-3 mm long, distinct; blades 7-16 cm long, 0.4-1.1 cm wide, L:W = 11-19, lanceolate, not tessellate, green, glabrous, base attenuate to rounded-attenuate, margins scabrous, apex short setose. **Synflorescences** 3-3.5 cm long, 0.8-1.6 cm wide, paniculate, narrow, base usually retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis and branches angular, glabrous, the edges scabrous; branches appressed; pedicels 1-3 mm long, angular, glabrous, the edges scabrid, appressed. **Spikelets** 8.3-9.1 mm long, slightly falcate, dorsally compressed, glabrous; glume I and II 0.1-0.2 mm long, less than 1/30 the spikelet length, scalelike, nerves absent; glumes III and IV 3.5-4.5 mm long, ca. 2/5 the spikelet length, subulate, 1- or 3-nerved; lemmas 7.9-8.3 mm long, subulate, apex free, 7- or 9-nerved; paleas 7.6-7.9 mm long, subequal to the fertile lemma, sulcate toward the apex, the sulcus scabrid, bimucronulate, 4-nerved. **Lodicules** unknown. **Stamens** unknown. **Caryopsis** 4.1 mm long, reddish-brown. **Habitat** in gallery forests; 50 to 200 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação








Floresta Ciliar ou Galeria

Distribuição Geográfica

Ocorrências confirmadas

Sul (Santa Catarina)

MATERIAL TESTEMUNHO

Bresolin, A., 1002, US,  (US00010290), MBM (MBM139858), FLOR (FLOR0005920), Santa Catarina, **Typus**
Clark, L.G., 1068, US, 3289667,  (US00502252), US, 3289666,  (US00502253), SP, 373299,  (SP003082), SJRP, 
(SJRP00012686), NY,  (NY00650980), K,  (K000925355)

Chusquea nutans L.G.Clark

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear; **leaf of the culm** deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** muticous/obtuse; **apex of the glume 2** muticous/obtuse; **apex of the glume 3** subulate; **apex of the glume 4** subulate; **lemma** 7 veins/pubescent/apex free/awned; **pale** 2 veins/weakly 2 keeled/apex acute/pubescent.

DESCRIÇÃO ADICIONAL

Rhizomes pachymorph. **Culms** (1-2) 4-5 (6) m tall, erect; internodes 7.7-14 cm long, 1-1.5 cm in diameter, slightly flattened above the branch complement, glabrous, waxy, without a band of white wax just below the nodal line. **Culm leaves** 6.6-17 cm long, deciduous as the branches develop, the base usually splitting, usually no clear distinction between the sheath and blade present, abaxially retrorsely scabrous on the upper half, glabrous below; sheaths when manifest 5.6-12.6 cm long, 3-6.5 (10) times as long as the blade, more or less triangular; girdle 0.5 glabrous; inner ligule usually absent, when present ca. 0.5 mm long, ciliolate; blades when manifest 0.8-2.3 cm long, triangular, erect, persistent, non-pseudopetiolate, adaxially retrorsely scabrous-pubescent, the apex subulate, flat. **Nodes** at mid-culm with one triangular central bud flanked by 2-5 subsidiary buds on each side; nodal line more or less horizontal; supranodal ridge inconspicuous. **Branching** intravaginal; central branch 32.5-100 cm long, nodding, rebranching; 5-10 subsidiary branches per node, (8) 18.5-65 cm long, nodding, rebranching. **Foliage leaves** 3-12 per complement; sheaths persistent, pubescent between the nerves, less commonly glabrous, nerves slightly prominent; outer ligule a minute, glabrous or ciliolate rim 0.1 mm long; inner ligule 0.2-0.5 mm long, truncate, puberulent; pseudopetiole 0.5 mm long mm long, distinct; blades 2-5.3 cm long, 0.06-0.15 cm wide, L:W = (25) 33-60, linear, not tessellate, green, adaxially scabrid, abaxially glabrous, base attenuate, margins glabrous, apex subulate. **Synflorescences** 0.5-1 cm long, paniculate or racemose, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis angular, scabrous-pubescent; branches and pedicels angular, scabrous-pubescent, the pedicels 2.5-4 mm long. **Spikelets** 5.6-6.6 mm long, more or less terete, pubescent; glume I and II, 0.6-0.8 mm long, ca. 1/10 the spikelet length, scalelike, acute to obtuse, nerves absent; glumes III and IV 2, 2.8-3.2 mm long, ca. 1/2 the spikelet length, subulate, glumes III 1-nerved, glumes IV 3-nerved; lemmas 5.2-5.9 mm long, subulate, apex free, 7-nerved; palea 4.7-5.6 mm long, slightly shorter than the fertile lemma, acute, 2-nerved, sulcate only toward the apex. **Lodicules** unknown. **Stamens** 3; anthers 2.6-2.8 mm long, yellow. **Fruit** unknown. **Habitat** in gallery forests along rivers and streams in campo rupestre, often associated with rocky outcrops; 1,000 to 1,720 m

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Caatinga, Cerrado, Mata Atlântica

Tipos de Vegetação

Campo Rupestre

Distribuição Geográfica

Ocorrências confirmadas

Nordeste (Bahia)


Sudeste (Minas Gerais)

MATERIAL TESTEMUNHO

J.R. Pirani, CFSC 13058, SP, K,  (K000925356), K,  (K000925357)

Nic-Lughadha, E., H51101

Queiroz, L.P.de, 14995, HUEFS (HUEFS0165378), Minas Gerais

L. Clark, 715, K,  (K000925360), Minas Gerais

Clark, LG, 768, MBM (MBM194608), Minas Gerais, **Typus**

Ferreira, F. M., 1512, CEPEC (CEPEC00117852), Bahia

Luciano de Bem Bianchetti, 1362, CEN (CEN00044695), Minas Gerais

R.M. Harley, 19596, CEPEC,  (CEPEC00021291), CEPEC,  (CEPEC00022140), MO (MO2114099), Bahia, **Typus**

Chusquea oligophylla Rupr.

Tem como sinônimo

heterotípico *Chusquea discolor* Hack.

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** with spot black; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/open; **bract(s) spatheaceous** absent; **apex glume 1** short subulate/acute; **apex of the glume 2** short subulate/acute; **apex of the glume 3** acute; **apex of the glume 4** acute; **lemma** 7 veins/9 veins/glabrous/apex connate/apex acute; **palea** 4 veins/6 veins/weakly 2 keeled/2 mucronate/glabrous.

DESCRIÇÃO ADICIONAL

Culms 1–6 m long, scandent; internodes 16–33.5 cm long, 0.2–0.5 cm in diameter, terete, glabrous, blackened or with irregular black splotches, even when young, white waxy band absent. **Culm leaves** 10.8–20.2 cm long, persistent, juncture of sheath and blade abaxially obscure; sheaths 10.3–20 cm long, (14–) 20–47 times as long as the blade, abaxially retrorsely scabrous, often only toward the apex, midrib abaxially prominent toward the apex, often forming a keel, margins glabrous; girdles 1–3 mm long, glabrous, brown; inner ligules ca. 0.1 mm long, truncate, ciliolate; blades 0.3–1.1 cm long, narrowly triangular, non-pseudopetiolate, deciduous, adaxial surface not seen, abaxially glabrous, midrib abaxially prominent, forming a keel, apex flat, subulate, margins glabrous. **Nodes** at mid-culm with one dome-shaped central bud subtended by 9–11 smaller subsidiary buds in 1 constellate row; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible but not prominent. **Branching** infravaginal; the central branch usually developed, as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches (5–8) 10–22 per node, 15–20 cm long, 1–1.2 mm in diameter, geniculate, sometimes rebranching from the basal nodes, girdles straw-colored to black-brown, glabrous. **Foliage leaves** 4–10 per complement; sheaths persistent, weakly striate, strongly keeled toward the apex, glabrous, usually uniformly green to light brown, sometimes mottled with green, the overlapping margin ciliate, a tuft of cilia 1–2.5 mm long present on each side of the sheath summit, summit extension minimal, to 0.2 mm long; outer ligules 0.2–0.3 mm long, unlobed to weakly bilobed, spreading to reflexed, extending to the margins along the juncture with the inner ligule, usually ciliolate; inner ligules 0.3–1 mm long, truncate, glabrous; outer ligules 0.2–0.3 mm long, unlobed to weakly bilobed, spreading to reflexed, extending to the margins along the juncture with the inner ligule, usually ciliolate; inner ligules 0.3–1 mm long, truncate, glabrous; pseudopetioles 1.5–3 mm long, glabrous, pulvinus usually brown, otherwise green; blades 4–10 cm long, 0.5–1.1 cm wide, L:W 6.5–12.5, lanceolate, not tessellate, adaxially green abaxially glaucous, adaxially and abaxially glabrous, with an abaxial tuft of hairs along one side of the midrib toward the base, base often slightly asymmetrical, rounded-attenuate, midrib slightly excentric (1.1–1.4), adaxially distinguishable at the base, abaxially yellowish and prominent for most of the length toward the apex, the margins glabrous, otherwise ciliolate, the cilia < 0.5 mm long, the apex acuminate. **Synflorescences** (2–) 3–7 cm long, (1–)2–4 cm wide, open paniculate, with primary and secondary branches, just fully exerted from the subtending leaf, borne on leafy branches only, not subtended by a spatheate bract; main axis angular, straight, glabrous; branches 1–2 cm long at the base, angular, glabrous, usually basally pulvinate and spreading, the lowermost one subtended by a fairly well developed acuminate bract (0.5–) 1–14 (–19) mm long, otherwise the branches ebracteate or only the primary branches subtended by minute bracts < 1 mm long or all branches subtended by minute bracts; pedicels 1.5–6.5 mm long, angular, glabrous, slightly swollen immediately below the spikelet, usually basally pulvinate and spreading, often subtended by minute bracts. **Spikelets** 4.9–7.8 mm long, more or less laterally compressed; glumes I and II acute to more commonly shortly subulate, slightly keeled, abaxially glabrous, 1- or 3-nerved; glume I 0.8–1.5 mm long, ca. 1/8 the spikelet length; glume II 1–1.6 mm long, ca. 1/6 the spikelet length; glumes III and IV acute, abaxially glabrous, margins ciliolate on the upper half; glume III 1.7–2.5 mm long, ca. 1/3 the spikelet length, 3- or 5-nerved; glume IV 2.6–4 mm long, ca. 1/2 the spikelet length, 5-nerved; lemma 4.3–6.5 mm long, acute, abaxially glabrous, 7- or 9-nerved, margins slightly fused at most at the apex, ciliolate on the upper half; palea 4.5–6.1 mm long, ± equaling the lemma, bimucronulate, abaxially glabrous, 4- or 6-nerved, 2-keeled, sulcate only toward the apex, the sulcus glabrous. **Lodicules** 3, apically short ciliate; the anterior pair 1.5–2.4 mm long, the posterior one 1.4–1.7 mm long. **Anthers** 3–3.5 mm long. **Fruit** a basic caryopsis, not observed in mature condition. **Habitat** in montane Atlantic forest and secondary vegetation at 700–1,300 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação




Campo de Altitude, Floresta Ombrófila (Floresta Pluvial)

Distribuição GeográficaOcorrências confirmadas

Sudeste (Espírito Santo, Rio de Janeiro, São Paulo)

Sul (Paraná, Santa Catarina)

MATERIAL TESTEMUNHO

R. Schnell, 8272, P (P02357071), Rio de Janeiro
 Schwirkowski, P., 2460, CRI (CRI013416), Santa Catarina
 Schwirkowski, P., 2460, FURB (FURB55659), Santa Catarina
 Korte, A., 4157, FURB (FURB38830), Santa Catarina
 Rosa, NA, 3917, UB (UB0017223), São Paulo
 Suemitsu, C., 41, UNIP (UNIP06946), São Paulo
 R. Schnell, 8298, P (P02357079), Rio de Janeiro
 J. Cordeiro, 1334, SP, São Paulo
 Suemitsu, C., 41, ESA (ESA012968), São Paulo
 A.P. Fontana, 4859, RB, 465633, ,  (RB00525415), Espírito Santo
 Cadorin, T.J., 2920, FURB (FURB38832), Santa Catarina
 E.J. Lucas, 601, K (K001106300), Rio de Janeiro
 Oliveira, A.A., 2067, FLOR (FLOR0059484), Santa Catarina
 Lucas, E.J. et al., 601, ESA (ESA053601), Rio de Janeiro
 Kassner-Filho, A., 967, FURB (FURB54746), Santa Catarina
 Schwirkowski, P., 1735, FURB (FURB51841), Santa Catarina
 P.Schwirkowski, 2460, RB,  (RB01394366), Santa Catarina
 Schwirkowski, P., 1413, FURB (FURB49481), Santa Catarina
 Schwirkowski, P., 1413, CRI (CRI013551), Santa Catarina
 A. P. Fontana, 4859, CEPEC (CEPEC00125615), Espírito Santo
 Funez, L.A., 5553, FURB (FURB51500), Santa Catarina
 Oliveira, A.A. de, 2067, FURB (FURB38839), Santa Catarina
 Oliveira, A.A. de, 2067, MBM (MBM411500), Santa Catarina
 Rosa, NA, 3917, UB (UB0017225), São Paulo
 Imaguire, 204, K, Paraná
 A. Mota, 325, HUEFS, Paraná
 Ribas & Pereira, 1351, MBM, Paraná
 Cordeiro et al., 1168, SP, Paraná
 A. Dusén, 17285, US, Paraná
 G. Hatschbach, 43268, MBM, Paraná
 G. Hatschbach & R. Kummrow, 36644, MBM, Paraná
 Ribas et al., 924, MBM, Paraná
 P. Windisch & L. Clark, 5642, SJRP, Paraná
 L. Clark et al., 935, MBM, SJRP, Paraná
 G. Hatschbach, 12040, MBM, Paraná
 L. Clark et al., 669, SJRP, RB, Rio de Janeiro
 A.F.A. Glaziou, 17918, RB, Rio de Janeiro
 Sarahyba et al., 1056, SP, Rio de Janeiro
 Sarahyba et al., 1063, HUEFS, SP, Rio de Janeiro

Sylvestre, 1919, RB, Rio de Janeiro
L. Clark et al., 1031, SJRP, Santa Catarina
L. Clark & W. Oliveira, 925, MBM, SJRP, Santa Catarina
B.R. Reitz & R.M. Klein, 18104, FLOR, Santa Catarina
B.R. Reitz & R.M. Klein, 18173, US, Santa Catarina
L. Clark & P. Windisch, 856, SJRP, Santa Catarina
B.R. Reitz & R.M. Klein, 10347, US, Santa Catarina
Shirasuna & Filgueiras, 2569, HUEFS, São Paulo
L. Clark & M. Morel, 819, SP, SJRP, São Paulo
Davis et al., 60787, SP, UEC, São Paulo
Luederwaldt, 4464, SP, São Paulo
Kuhlmann, 4588, SP, São Paulo
L. Clark & P. Windisch, 731, SJRP, São Paulo
Hoehne, 4727, HUEFS, SP, São Paulo
Gomes et al., 457, UEC, São Paulo

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Chusquea oxylepis (Hack.) Ekman

Tem como sinônimo

basiônimo *Chusquea bambusoides* subsp. *oxylepis* Hack.

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous/scabrous; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/open; **bract(s) spathaceous** present/1; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** short subulate; **apex of the glume 4** short subulate; **lemma** 9 veins/scabrous/apex connate; **pale** 6 veins/weakly 2 keeled/2 mucronate.

DESCRIÇÃO ADICIONAL

Culms 3–15 m long, scandent; internodes 22.5–36.5 cm long, 0.5–1.5 cm in diameter, terete to slightly flattened, glabrous, often scabrid just below the node, white waxy band absent. **Culm leaves** 26–53 cm long, persistent, juncture of sheath and blade abaxially an indistinct, shallow, inverted "V"; sheaths 22–42.5 cm long, 3.5–7 (–11) times as long as the blade, abaxially strongly retrorsely scabrous, midrib visible especially toward the apex but not always prominent, overlapping margin ciliate, fused at the base for ca. 2 mm, a short corky ridge present at juncture of sheath and girdle; girdles 3–8 mm long, pubescent, dark brown; inner ligules 0.5–1 mm long, erose, irregular, ciliolate; blades 2.8–10.5 cm long, narrowly triangular, non-pseudopetiolate, more or less persistent, adaxially antrorsely scabrous, abaxially glabrous, the midrib abaxially prominent, forming a keel close to the apex, apex flat, acuminate-setose. **Nodes** at mid-culm with one dome-shaped central bud subtended by 5–6 smaller subsidiary buds in one constellate row; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible, sometimes prominent. **Branching** infravaginal; the central branch usually developing and rebranching, as robust as the main culm, ± horizontally oriented, at least initially; leafy subsidiary branches 4–11 per node, 19–51 cm long, 1.5–2.5 mm in diameter, geniculate, often rebranching from the basal nodes, girdles usually the same color as or darker than the sheath, glabrous or scabrous, ± prominent. **Foliage leaves** 3–4 per complement; sheaths persistent, ± striate, glabrous, uniform in color, keeled, especially toward the apex, the overlapping margin ciliate; outer ligules 0.4–1.5 mm long, glabrous, sometimes bilobed, erect, extending along the juncture of the sheath summit and inner ligule as a rim, often ciliolate; inner ligules 1–3 mm long, rounded, glabrous, rarely pubescent; pseudopetioles 2–4(–6) mm long, adaxially glabrous, abaxially pubescent, pulvinus darker, often brown, but otherwise green; blades (7.4–) 10.6–20.4 cm long, 1.5–3.8 cm wide, L:W 4–7.5, lanceolate to ovate-lanceolate, not tessellate or abaxially weakly so, green to light green, adaxially glabrous, abaxially glabrous but with a basal tuft of hairs extending into the pseudopetiole, the base usually asymmetrical, one side rounded, the other rounded-attenuate, the midrib slightly excentric (1.1–1.4), abaxially ± prominent and visible up to 2/3 of the length, the margins variable, but one usually scabrous, the other sparsely scabrous or glabrous, the apex acuminate. **Synflorescences** 3–7(–8) cm long, 2–4 cm wide, paniculate open, with primary and secondary branches, usually fully exerted from the subtending leaf, borne on leafy branches only, spatheate bract 1, this sometimes not well differentiated from the next lower leaf, sheath 3–5 cm long, blade 1.4–3.9 cm long, green; main axis angular, ridged, glabrous to scabrous-pubescent; branches 0.5–1.5 cm long at the base, angular, glabrous to scabrous-pubescent, usually basally pulvinate and spreading, subtended by small bracts, the bract subtending the first branch usually 2–5 mm long, sometimes spathe-like with a sheath 2–3.7 cm long and a blade 0.4–0.6 cm long, those subtending higher branches 1–5.5 mm long, sometimes appearing as a ridge; pedicels 0.5–2 mm long, angular, ridged, glabrous to scabrous-pubescent, usually basally pulvinate and spreading, often subtended by minute bracts. **Spikelets** (8–) 10–14 mm long, usually straw-colored, sometimes brown, moderately laterally compressed; glumes I and II awned, ± 1-keeled, abaxially glabrous, marginally ciliolate toward apex, the awns scabrid; glume I 2.4–5.6 (–6.1) mm long, ca. 1/4 the spikelet length, 3- or 5-nerved, the awn ca. 2 mm long; glume II 2.9–6.3 mm long, ca. 1/3 the spikelet length, usually 5-nerved, the awn ca. 1.4 mm long; glumes III and IV shortly subulate, abaxially glabrous, the midrib abaxially scabrid toward the apex; glume III 4.6–7.3 mm long, ca. 1/2 the spikelet length, 7-nerved; glume IV 6.6–8.9 mm long, ca. 3/4 the spikelet length, 7- or 9-nerved; lemma 9.6–12.1 mm long, shortly subulate, margins connate at the apex, abaxially scabrid, 9-, 11- or 13-nerved; palea 8.4–11.7 mm long, ± equaling the lemma body, bimucronulate, abaxially scabrous-pubescent, 6- or 8-nerved, 2-keeled, sulcate only toward the apex, the sulcus abaxially scabrous. **Lodicules** 3, apically ciliate; the anterior pair 2–2.8 mm long, the posterior one 1.5–1.7 mm long. **Anthers** (3.9–) 5–7.4 mm long. **Fruit** a basic caryopsis. **Habitat** in Atlantic forest or secondary vegetation at 0–1,000 m.

Forma de Vida

Bamboó

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação

Floresta Ombrófila (Floresta Pluvial), Restinga

Distribuição GeográficaOcorrências confirmadas

Nordeste (Bahia)

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sul (Paraná, Santa Catarina)

MATERIAL TESTEMUNHO

M.G. Caxambu et al., 2208, HCF (HCF000005847), Santa Catarina

Tadei, M., s.n., UPCB (UPCB0039583), Paraná

Thom, s.n., FURB (FURB38840), Santa Catarina

G. Hatschbach, 54407, MBM, Paraná

C.E. Calderon, 2189, K (K001106317), Bahia

R.S. Rodrigues, 405, MBML (MBML048695), Espírito Santo

Soderstrom et al., 2181, CEPEC, Bahia

Soderstrom et al., 2155, CEPEC, Bahia

Hage & Silva, 319, CEPEC, Bahia

A. Mota, 338, HUEFS, Bahia

F. O. Zuloaga, 2429, RB, 270945,   (RB00613893), Espírito Santo

C.E. Calderón, 2189, K (K001106318), Bahia

C.E. Calderón, 2189, K (K001106315), Bahia

C.E. Calderón, 2189, K (K001106316), Bahia

Wettstein, R., s.n., B, São Paulo, **Typus**

Soderstrom & Sucre, 1898, SP, CEPEC, Espírito Santo

P. Windisch & L. Clark, 5641, MBM, SJRP, Paraná

G. Hatschbach, 31017, MBM, Paraná

G. Hatschbach, 35522, MBM, Paraná

G. Hatschbach, 6038, MBM, Paraná

G. Hatschbach, 37002, MBM, Paraná

F.A. McClure, 21292, RB, Rio de Janeiro

R. Forzza et al., 2882, RB, Rio de Janeiro

L. Clark et al., 812, SJRP, RB, Rio de Janeiro

L. Clark & M. Morel, 637, SJRP, RB, Rio de Janeiro

A. Mota, 310, HUEFS, Rio de Janeiro

L. Clark & M. Morel, 625, RB, SJRP, Rio de Janeiro

B.R. Reitz & R.M. Klein, 9691, MBM, FLOR, Santa Catarina

B.R. Reitz & R.M. Klein, 9690, HBR, Santa Catarina

Reitz, 6182, FLOR, Santa Catarina

L. Clark & P. Windisch, 859, SJRP, Santa Catarina

L. Clark & P. Windisch, 1069, SJRP, Santa Catarina

L. Clark & P. Windisch, 884, SJRP, Santa Catarina

Silva et al., 4418, MBM, São Paulo

L. Clark & P. Windisch, 724, SJRP, São Paulo

Davis et al., 60870, UEC, São Paulo

L. Clark & P. Windisch, 721, SJRP, São Paulo

L. Clark & P. Windisch, 843, SJRP, São Paulo

Kuhlmann, 4625, SP, São Paulo
A. Mota, 386, HUEFS, Bahia
A. Mota, 398, HUEFS, Bahia
Soderstrom et al., 2124, CEPEC, Bahia
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Chusquea parviligulata R.S. Andrade, Pianiss. & L.G. Clark

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect on the base with apex arcuate; **colour** uniform; **branching** infravaginal; **bud main** triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** present. **Leaf:** **form of the leaf of the shoot** oval-lanceolate; **leaf of the culm** persistent/deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** not observed; **bract(s)** **spathaceous** not observed; **apex glume 1** not observed; **apex of the glume 2** not observed; **apex of the glume 3** not observed; **apex of the glume 4** not observed; **lemma** not observed; **pale** not observed.

DESCRIÇÃO ADICIONAL

Rhizomes pachymorph. **Culms** 4–8 m long, erect at the base then scandent or clambering and hanging above; internodes 8.5–20 cm long, 0.3–0.8 cm in diameter, solid, terete, moss green, with a sticky surface in younger individuals, a white waxy band 0.3–0.7 cm wide below the node and wearing away with age, glabrous below the node. **Culm leaves** 10.3–14.2 cm long, 1.2–2.6 cm wide at the base, with differentiation between blade and sheath, belatedly deciduous to persistent, the juncture of the sheath and blade abaxially a faint line; sheaths 6.3–9.7 cm long, 0.9–2.4 times as long as the blade, adaxially and abaxially glabrous, midrib obscure, the margins glabrous, free; girdles 1–3 mm wide, brown, glabrous, a small corky ridge present at the juncture with the sheath; outer ligule lacking; inner ligules 0.8–1.8 mm long, membranous, glabrous; blades 3.1–7 cm long, triangular, non-pseudopetiolate, erect, deciduous, adaxially glabrous and abaxially glabrous to sparsely hairy and short-scabrous, base as wide as the sheath summit, the midrib obscure, the margins ciliate and deciduous, flat toward the apex, the apex acuminate. Nodes at mid-culm with one triangular, vertically oriented central bud subtended by 20–42 smaller subsidiary buds in 2–3 rows in a constellate arrangement, these sometimes seemingly divided into two groups by a small space directly below the central bud; nodal line dipping slightly below the bud/branch complement, without a ring of trichomes encircling the node; supranodal ridge visible but not prominent. **Branching** infravaginal; central branch frequently developing initially more or less erect, then diverging up to 15°–45° from the main culm; leafy subsidiary branches 19–68 (–79) per node, (7–) 9–22.7 cm long, 0.8–1 mm diam., geniculate at the base to the second or third node, often in two groups, rebranching at the base of the branches. **Foliage leaves** 6–12 per complement; sheaths 0.8–2.1 cm long, persistent, stramineous, mottled to slightly mottled, overlapping margin ciliate, with cilia at the apex 1–2.2 mm long, the overlapping side of the sheath pilose to pubescent between the margin and the keel, keeled toward the apex; outer ligules 0.1–0.2 mm long, membranous, apex ciliolate, with cilia less than 0.1 mm; inner ligules 0.05–0.2 mm long, membranous, truncate, rarely asymmetric, entire, puberulous; pseudopetioles 0.7–1 mm long, adaxially glabrous to scabrous, abaxially often glabrous, sometimes puberulous, pulvinus brown to blackish; blades 2.2–6.1 cm long, 0.2–0.4 cm wide, L:W = 6–18 (–20.3), linear lanceolate to lanceolate, adaxially not tessellate, abaxially weakly tessellate, green, membranous, adaxially scabrous near the margins and glabrous or sparsely setose, abaxially mostly glabrous, with a tuft of trichomes at the base, veins not prominent, base attenuate, asymmetric, midrib slightly excentric, more prominent toward the base but visible for almost the entire length, the margins scabrous, the apex acuminate. **Synflorescences** not seen. **Habitat** in Atlantic rainforest at 800–960 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação









Floresta Ombrófila (Floresta Pluvial)

Distribuição Geográfica

Ocorrências confirmadas

Nordeste (Bahia)

MATERIAL TESTEMUNHO

W.W. Thomas, 9261, CEPEC (CEPEC00055606), Bahia
W.W. Thomas, 9360, CEPEC (CEPEC00055437), Bahia
W.W. Thomas, 9360, NY,  (NY00650299), Bahia
Andrade, R.S., 200, HUEFS, 247439, Bahia, **Typus**
W.W. Thomas, 9261, NY,  (NY00650300), Bahia
dos Santos, T.S., 9360, K,  (K000018806)
dos Santos, T.S., 9360A, K,  (K000018807)
Andrade et al., 267, HUEFS, Bahia
Andrade et al., 268, HUEFS, Bahia
Oliveira et al., 1220, HUEFS, Bahia
Andrade et al., 177, HUEFS, Bahia
Andrade et al., 204, HUEFS, Bahia
Andrade et al., 254, HUEFS, Bahia
Ferreira, F. M., 1668, CEPEC (CEPEC00121533), Bahia
Ferreira, F.M., 1788, HUEFS (HUEFS0133223), Bahia
Oliveira, R. P., 1220, CEPEC, ,  (CEPEC00116650), Bahia
Ferreira, F. M., 1788, CEPEC (CEPEC00121653), Bahia
Fiaschi, P, 1789, SPF,  (SPF00162975), Bahia
L.Y.S. Aona, 2981, RB, 602273,  (RB00866681), Bahia

BIBLIOGRAFIA

RAY S. ANDRADE, EVANDRO M. PIANISSOLA, KAIO VINICIUS DE A. VIDAL, ALINE COSTA DA MOTA, LYNN G. CLARK & REYJANE P. OLIVEIRA (2019). *Chusquea parviligulata* (Poaceae: Bambusoideae: Bambuseae): a new species of *C.* subg. *Chusquea* endemic to the Atlantic rainforest of Bahia, Brazil. *Phytotaxa* 405 (1): 027–036.
<https://doi.org/10.11646/phytotaxa.405.1.3>

Chusquea pinifolia (Nees) Nees

Este tratamento é composto pelos seguintes táxons: *Chusquea pinifolia*, .

Tem como sinônimo

basiônimo *Arundinaria pinifolia* Nees

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous/pubescent; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** linear; **leaf of the culm** persistent/deciduous; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/contracted; **bract(s) spathaceous** absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** awned/short subulate; **apex of the glume 4** awned/short subulate; **lemma** 5 veins/7 veins/9 veins/pubescent/apex free/awned; **palea** 4 veins/2 keeled/2 mucronate/pubescent.

DESCRIÇÃO ADICIONAL

Rhizomes pachymorph. **Culms** 2-3 m tall, erect; internodes 3-11 cm long, 0.5-1 cm in diameter, terete, sometimes pubescent below the nodes when young, otherwise glabrous, waxy, without a band of white wax just below the nodal line. **Culm leaves** 5.3-14.2 cm long, persistent or deciduous, abaxially glabrous or retrorsely scabrid; sheaths 3.2-11.7 cm long, 1.4-4 (6) times as long as the blade, more or less triangular; girdle 0.5-1 mm wide, pubescent; inner ligule 0.2-1 mm long, ciliolate; blades 1.3-5 cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially retrorsely scabrid, apex subulate, flat. Nodes at mid-culm with one triangular central bud more or less linearly subtended by 5-20 subsidiary buds; nodal line more or less horizontal; supranodal ridge not to slightly swollen. **Branching** intravaginal; central branch 10-65 cm long, erect, rebranching; 5-20 (-30) subsidiary branches per node, (4) 8-21 cm long, erect, rebranching. **Foliage leaves** 10-12 (-16) per complement; sheaths persistent, finely pubescent between the nerves, nerves slightly prominent; outer ligule a minute rim, ciliolate or glabrous; inner ligule 0.3-0.5 mm long, truncate, puberulent; pseudopetiole 0.2- 1 mm long, not very distinct; blades 1.5-4.7 (-6.6) cm long, 0.07-0.25 (-0.4) cm wide, L:W = (8.6-) 17-3, linear lanceolate, not tessellate, green, glabrous, base attenuate, margins scabrous, apex navicular-subulate to setose. **Synflorescences** 1-2 (-4) cm long, 0.3-1 cm wide, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis angular, scaberulous to pubescent; branches less than 1 cm long, appressed, angular, scabrid to pubescent; pedicels 1-3.5 mm long, angular, scabrid to pubescent. **Spikelets** 5-7.1 (-8.1) mm long, more or less terete, finely pubescent on the upper half of each bract.; glume I 0.3-0.9 mm long, <1/10 the spikelet length, scalelike; glume II 0.4-1.3 mm long, ca. 1/10 of the spikelet length, scalelike to oblong; glume III e IV 2.9-4.3 mm long, 1/2-2/3 the spikelet length, mucronate to awned, 1-, 3- or 5-nerved; lemma 4.7-7.5 mm long, mucronate to subulate, apex free, 5-, 7- or 9-nerved; palea 4.3-7 mm long, subequal to the fertile lemma, sulcate only toward the apex, bimucronate, 4-nerved. **Lodicules** unknown. **Stamens** 3; anthers, 2.8-3.5 mm long, yellow. **Fruit** unknown. **Habitat** in rocky outcrops in high altitude grasslands, frequently in somewhat marshy or boggy areas; 1600 to 2600 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Cerrado, Mata Atlântica

Tipos de Vegetação












Campo de Altitude, Campo Rupestre

Distribuição Geográfica

Ocorrências confirmadas

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)
Sul (Paraná, Santa Catarina)

MATERIAL TESTEMUNHO

F. Sellow, s.n., US,  (US00028290), **Typus**
A.M. Camerik, 233, K,  (K000925247), Rio de Janeiro
Souza, V.C., 23291, ESA (ESA064448), Minas Gerais
Tinti, B.V. et al., 333, HUEMG (HUEMG003772), Espírito Santo
P.G. Windisch, 2868, SJRP,  (SJRP00012815), São Paulo
E.J. Lucas, 561, K (K001106302), Rio de Janeiro
L. S. Leoni, 1189, CEPEC,  (CEPEC00060491), Minas Gerais
W.R. Anderson, 35769, UB, 228722 (UB0016451), NY, 228722,  (NY00861907), Minas Gerais
T.R.Soderstrom, 1927, CEPEC, 228722,  (CEPEC00012933), K, 228722,  (K000925246), RB, 228722, , 
(RB00613852), Rio de Janeiro
G.Hatchbach, 22210, K,  (K000925249), MBM (MBM011929), NY,  (NY00651013), Paraná

BIBLIOGRAFIA

CORRÊA, M. P. Dicionário das plantas úteis do Brasil. Rio de Janeiro: Ministério da Agricultura Imprensa Oficial/Instituto Brasileiro de Desenvolvimento Florestal. 1926-1931. 1984. v.1. p.492.

Chusquea pulchella L.G.Clark

DESCRIÇÃO

Stem: rhizome pachymorph; culm solid; orientation of the culm scandent; colour uniform; branching infravaginal; bud main developed/circular/orientation horizontal; indumentum glabrous; wax below of the node absent. **Leaf:** form of the leaf of the shoot linear/lanceolate; leaf of the culm persistent; form of the leaf of the culm triangular. **Inflorescence:** synflorescence paniculate/weakly paniculate to racemose/contracted; bract(s) spathaceous absent; apex glume 1 acute; apex of the glume 2 acute; apex of the glume 3 muticous; apex of the glume 4 muticous; lemma 7 veins/pubescent/apex obtuse; palea 4 veins/6 veins/weakly 2 keeled/apex obtuse.

DESCRIÇÃO ADICIONAL

Culms 2–3 m long, scandent; internodes 9.5–15 cm long, 0.2–0.3 cm in diameter, terete, glabrous, usually uniformly green or brown, without black splotches, white waxy band absent. Culm leaves 10–12 cm long, persistent, juncture of sheath and blade abaxially obscure; sheaths 9.8–11.2 cm long, 9.8–12.4 times as long as the blade, abaxially retrorsely scabrous, midrib abaxially visible toward the apex, the overlapping margin ciliate, not fused at the base; girdles ca. 1 mm long, scabrous-pilose or hispid at least at the bud complement, often completely pilose, straw-colored; inner ligules not seen; blades 0.9–1 cm long, triangular, persistent, non-pseudopetiolate, adaxially antrorsely tomentose, abaxially glabrous, midrib abaxially becoming prominent and forming a keel toward the apex, apex flat, subulate, margins glabrous. Nodes at mid-culm with the dome-shaped central bud subtended by 12–36 smaller subsidiary buds in 2(–3) constellate rows; nodal line dipping markedly below the bud/branch complement; supranodal ridge obscure. Branching infravaginal; the central branch always developed, as robust as the main culm, ± horizontally oriented at least initially; leaf subsidiary branches 20–36 per node, 13–40 cm long, 0.7–1 mm in diameter, geniculate, sometimes rebranching from the basal nodes, girdles straw-colored to dark brown, pilose. Foliage leaves 7–10 per complement; sheaths persistent, striate, keeled toward the apex, pilose toward the apex, often fully pilose at lower branch nodes, uniformly light brown or green, the overlapping margin ciliate toward the apex, summit extension 0.1–0.4 mm, a tuft of cilia up to 1 mm long present on one side at the apex; outer ligules 0.1–0.2 mm long, unlobed, erect, extending as a mere rim along the juncture of the summit extension and the inner ligule, glabrous; inner ligules 0.3–0.5 mm long, truncate, scabrous to pubescent; pseudopetioles ca. 1 mm long, pilose, pulvinus slightly darker, otherwise similar in color to the blade; blades 3.5–7.1 cm long, 0.25–0.5 cm wide, L:W 11.7–14 (–24), linear-lanceolate, green, not tessellate, adaxially glabrous, abaxially tomentose, a tuft of hairs present at the base, base attenuate to rounded-attenuate, apex acuminate, midrib centric to slightly excentric (1–1.4), abaxially yellowish, prominent for most of its length, the margins scabrous at the base, becoming nearly ciliate at the apex, cilia up to 0.3 mm long at the apex. Synflorescences 1.3–2 cm long, ca. 1 cm wide, paniculate open, with primary branches only (with limited branching at the base), just fully exerted from the subtending sheath, borne on leafy branches only, spatheate bracts absent; main axis more or less flattened, straight, hispid-pubescent on the first internode, glabrous above; branches 0.5 cm long at the base, angular, glabrous, ascending, usually subtended by a small bract 0.1–1.3 mm long; pedicels 1–2 mm long, angular, glabrous, often subtended by a minute bract. Spikelets 5.5–5.8 mm long, moderately laterally compressed; glumes I and II acute, slightly keeled, abaxially sparsely pubescent; glume I 0.9–1.1 mm long, ca. 1/10 the spikelet length, 1-nerved; glume II 1.2–1.7 mm long, ca. 1/5 the spikelet length, 1- or 3-nerved; glumes III and IV acute to acute-mucronate; glume III 2.5–2.7 mm long, ca. 1/2 the spikelet length, sparsely pubescent on the lower half, 3-nerved; glume IV 4.5–5.2 mm long, nearly as long as the spikelet, sparsely pubescent, 5-nerved; lemma 4.7–5 mm long, obtuse, sparsely pubescent, 7-nerved, margins apparently free at the apex, minutely ciliolate toward the apex; palea 5–5.5 mm long, usually overtopping the lemma, obtuse, 4- or 6-nerved, sulcate only at the apex, the sulcus scabrous-pubescent. Lodicules 3; anterior pair 1.4 mm long, posterior one 0.9–1.2 mm long. Stamens probably 3 (available spikelets too old to determine the number with certainty); anthers ca. 2.6 mm long. Fruits not seen. Habitat in Atlantic forest along streams at 530–680 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação

Floresta Ombrófila (Floresta Pluvial)

Distribuição GeográficaOcorrências confirmadas

Sudeste (São Paulo)

MATERIAL TESTEMUNHOClark, LG, 939, ISC, SP, MBM (MBM194531), São Paulo, **Typus**

L. Clark & P. Windisch, 726, SJRP, São Paulo

G. Davidse, 10950, SP, São Paulo

A. Mota, 407, HUEFS, São Paulo

BIBLIOGRAFIAClark, L.G. 1993. Five new species of *Chusquea* (Poaceae: Bambusoideae) and a new combination. *Novon* 3: 228-238.

Chusquea ramosissima Lindm.

Tem como sinônimo

heterotípico *Chusquea affinis* Munro ex Camus

heterotípico *Chusquea phacellophora* Pilg.

DESCRIÇÃO

Stem: rhizome rarely amphimorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** triangular; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** lanceolate/ovate. **Inflorescence:** **synflorescence** weakly paniculate to racemose; **bract(s) spatheaceous** absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** muticous; **apex of the glume 4** muticous; **lemma** 7 veins/9 veins/apex free/muticous; **palea** 6 veins.

DESCRIÇÃO ADICIONAL

Rhizomes leptomorph, probably amphimorph. **Culms** 3–8 (–10) m tall, erect at the base, arching to scandent, clambering or hanging above; internodes 22–32 cm long, 0.4–1 (–1.5) cm in diameter, solid, usually glabrous, sometimes hispid just below the nodes, white waxy band absent. **Culm leaves** with sheaths 13–26 (–31.5) cm long, 1–3 (–4) times as long as the blade, persistent, abaxially glabrous or less commonly pubescent at the base and finely appressed-pubescent above or rarely hispid, slightly keeled toward the apex, apex symmetrically concave, margins becoming scariosus toward the apex; sheath summit extensions 0.9–3.2 mm long, glabrous, erect, strongly unequal; girdle 0.5–4 mm wide, glabrous at the juncture with the sheath; outer ligule 1–2 mm long, glabrous or ciliolate; inner ligule 2–10 mm long, asymmetrical, glabrous or abaxially pubescent; pseudopetioles 1.5–5 mm long, adaxially glabrous or stiffly pubescent, abaxially ciliate along the midrib; blades (6.5–) 10–18 (–20.5) cm long, 1–3 (–3.5) cm wide, L:W = 5.4–10, lanceolate, pseudopetiolate, reflexed, apex flat. **Nodes** at mid-culm with 21–38 buds, consisting of one larger triangular central bud subtended by 20–37 smaller, closely adjacent buds, 3–4 per lateral set; nodal line dipping markedly below the bud/branch complement; supranodal ridge slightly swollen. **Branching** infravaginal; central branch when developed ascending; 20–50 branches per node subtending the central bud/branch, subsidiary branches of 2 sizes, with 2–4 more robust ones. **Foliage leaves** 5–9 per complement; sheaths persistent, glabrous or puberulent, maculate when young, margins usually becoming scariosus, overlapping margin ciliate toward the apex, keeled, summit glabrous to finely ciliate, sheath summit extension 0.5–2 mm long, erect, acute, developed only on one side of the sheath, glabrous or less commonly ciliate; outer ligules 0.1–1.5 mm long, sometimes glabrous, usually ciliolate or ciliate; inner ligules 0.4–1.5 mm long, truncate, glabrous or abaxially pubescent; pseudopetioles 1–2 mm long, adaxially glabrous, abaxially strongly ciliate; blades 4–9.4 (–12) cm long, 0.5–1.5 (–1.8) cm wide, L:W=5–12.6, lanceolate, not tessellate, green, adaxially glabrous, abaxially glabrous with a few sparse hairs along the midrib at the base or rarely abaxially pilose, abaxially a green marginal stripe often visible, the base ± symmetrical, attenuate to rounded, the margins scabrous, midrib slightly excentric to more or less centric, the apex acuminate. **Synflorescences** 2–6.5 cm long, 1–1.5 cm wide, paniculate, contracted, straight to slightly curved, borne on longer leafy and shorter leafless branches, spatheate bracts absent; rachis glabrous but ridges often scabrous; pedicels 0.5–4 mm long, scabrous-pubescent. **Spikelets** (7.5–) 8.5–11 mm long, ca. 2 mm wide; glumes I and II glabrous, apex obtuse, margins erose; glume I 0.5–1 mm long, 1/20–1/10 the spikelet length, 0–1-nerved; glume II 0.6–1.2 mm long, 1/20–1/8 the spikelet length, 0–2-nerved; glumes III and IV glabrous with apically ciliolate margins, apex acute; glume III 3.6–8.3 mm long, 2/5–2/3 the spikelet length, 3–5-nerved; glume IV 3.9–8.6 mm long, 1/2–2/3 the spikelet length, 5–7-nerved; lemma 7–9.7 mm long, apex mucronate, free, margins slightly ciliate towards the apex, 7–9-nerved; palea 7.3–9 mm long, (4–) 6–7-nerved, weakly keeled towards the apex, weakly sulcate only towards the apex, apex biapiculate, ciliate. **Lodicules** lanceolate, apex acute; the anterior pair 1–1.2 mm long, the posterior one 0.7–1.1 mm long. **Anthers** ca. 3.5 mm long. **Fruit** not seen. **Habitat** in Atlantic forest, transitional dry or semi-deciduous Atlantic forests, seasonally dry tropical forests, forest remnants and secondary vegetation at 0–720 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, não é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica, Pampa

Tipos de Vegetação



Área Antrópica, Floresta Ciliar ou Galeria, Floresta Estacional Decidual, Floresta Estacional Semidecidual, Floresta Ombrófila (Floresta Pluvial), Floresta Ombrófila Mista

Distribuição GeográficaOcorrências confirmadas

Nordeste (Bahia, Ceará, Paraíba, Pernambuco)

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sul (Paraná, Rio Grande do Sul, Santa Catarina)

MATERIAL TESTEMUNHOThomas R. Soderstrom, 1986, RB, 413626,   (RB00613910), Rio de Janeiro

Soderstrom et al., 2135, SP, Bahia

Dorea, 80, HUEFS, Bahia

Soderstrom et al., 2107, SP, Bahia

L.J.T. Cardoso, 683, CEN (CEN00092010), Rio de Janeiro

A.R. Reitz, 13540, HBR, Santa Catarina

Clark, L.G. & P. Windisch, 852, MBM, Paraná

G. Hatschbach, 55543, MBM, Minas Gerais

G. Hatschbach, 21511, US, Paraná

G. Hatschbach, 40533, US, Paraná

G. Hatschbach, 59412, MBM, Paraná

Clark & Oliveira, 920, ICN, Rio Grande do Sul

Lindman, A. 1239, S, Rio Grande do Sul

Clark & Salgado, 1187, SP, São Paulo

Michelon, C, 1534, MBM (MBM387433), Paraná

Carvalho et al., 4359, CEPEC, Bahia

Thomas et al., 11903, NY, Bahia

J.A. Lombardi, 5694, BHCB, Minas Gerais

Pereira, 5363, K, Paraná

Dorea et al., 128, HUEFS, Pernambuco

Rambo, 42566, SI, Rio Grande do Sul

H.M. Longhi-Wagner, 10151, ICN, Rio Grande do Sul

Clark & Oliveira, 902, SP, Santa Catarina

Clark, L.G. & P. Windisch, 866, SP, Santa Catarina

Klein & Bresolin, 11421, HBR, Santa Catarina

Clark, L.G. & P. Windisch, 649, SP, São Paulo

M.C.H. Mamede, 583, SPF, São Paulo

Balansa, 134a, S, **Typus**

Clark, L.G. & M. Morel, 694, SP, Espírito Santo

Ferreira et al., 2170, HUEFS, Espírito Santo

Soderstrom & Sucre, 1986, US, Rio de Janeiro

Dunaiski Jr., 2097, MBM (MBM384598), Paraná

Suemitsu, C., 68, ESA (ESA012998), São Paulo

Mota & Silva, 447, HUEFS, Ceará

Clark, L.G. & P. Windisch, 849, MBM, Paraná

J.F.M. Valls, 2579, CEN, Rio Grande do Sul

Temponi, L.G., 645, UNOP (UNOP005526), Paraná

Ferreira, F. M., 1593, CEPEC (CEPEC00117957), Bahia

Dunaiski Jr., s.n., MBM (MBM384603), Paraná

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Attigala, L. R., A. F. Fuentes C. and L. G. Clark. 2017. *Chusquea* sect. *Tenellae* (Poaceae: Bambusoideae), a taxonomic revision of a new section from South America. *Phytotaxa* 324(3): 239-265. DOI: <https://doi.org/10.11646/phytotaxa.324.3.2>

Chusquea riosaltensis L.G.Clark

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** linear; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** muticous; **apex of the glume 2** muticous; **apex of the glume 3** subulate; **apex of the glume 4** subulate; **lemma** 9 veins/scabrous/apex free/awned; **palea** 4 veins/weakly 2 keeled/2 mucronate/scabrous.

DESCRIÇÃO ADICIONAL

Rhizomes pachymorph. **Culms** 1.5-4 m tall, erect; internodes 4.5-9 cm long, 0.3-1(-1.5) cm in diameter, slightly flattened above the branch complement, glabrous, waxy, without a band of white wax below the nodal line. **Culm leaves** 6.6-16.5 cm long, persistent; sheaths 3.6-8 cm long, 1.2-3.6 times as long as the blade, more or less triangular, abaxially retrorsely scabrous, margins glabrous, ciliate near the apex; girdle 0.1-0.5 mm wide, pubescent; inner ligule 0.5 mm long, ciliolate; blades 2-5 cm long, triangular, non-pseudopetiolate, erect, persistent, adaxially glabrous, abaxially scabrous, the apex subulate, flat. **Nodes** at mid-culm with one triangular central bud linearly subtended by 4-8 smaller subsidiary buds; nodal line horizontal; supranodal ridge inconspicuous. **Branching** intravaginal; central branch 20-60 cm long, erect the base, ascending but gently curving away from the main culm, rebranching; 4-6 subsidiary branches per node, 4-13 cm long, erect, not rebranching. **Foliage leaves** 8-10 per complement; sheaths persistent, pubescent between the nerves, margins smooth, nerves not prominent; outer ligule 0.2 mm long, ciliolate; inner ligule 0.3-0.5 mm long, truncate, abaxially glabrous; pseudopetiole 0.5 mm long, distinct; blades 2.5-6 cm long, 0.2-0.6 cm wide, L:W = 10-13, lanceolate, not tessellate, glabrous, base rounded, margins scabrous, apex subulate. **Synflorescences** 2-3 cm long, 0.5-1.0 cm wide, paniculate, narrow, base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis, angular, puberulous or puberulent; branches angular, puberulous or puberulent, appressed; pedicels angular, scaberulous or puberulent, 1-3mm long. **Spikelets** 5.5-7.3 mm long, laterally compressed; glumes I and II 0.2-0.5 mm long, < 1/15 the spikelet length, scalelike; glumes III and IV scabrous, awned; glume III 3-4 mm long, ca. 2/3 the spikelet length, 1-3nerved, awn 0.5-1 mm long; glume IV 3-4.4 mm long, ca. 3/4 the spikelet length, 3-4-nerved, awn 0.6-1.2 mm long; lemmas ca. 5-7.2 mm long including the awn, awn ca. 0.6-1 mm long, apex free, 9-nerved; palea 4-6.5 mm long, smaller than the lemma, bimucronulate or bimucronate, 4-nerved, 2-keeled, sulcate just near the apex. **Lodicules** 3; 1-2 mm long, the apices ciliolate. **Stamens** 3; anthers 3-4 mm long, yellow. **Fruit** unknown. **Habitat** in gallery and elfin forests at 1,200-1,300 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação





Campo Rupestre, Floresta Ciliar ou Galeria, Floresta Ombrófila (Floresta Pluvial)

Distribuição Geográfica


Ocorrências confirmadas

Sudeste (Minas Gerais)

MATERIAL TESTEMUNHO

L. Clark, 775, US,  (US00406486), MO (MO115934), K, ,  (K000433266), SJRP,  (SJRP00012572), Minas Gerais,

Typus

Ferreira, F.M., 1252, NY,  (NY01039095), K (K001106345), HUEFS (HUEFS0151033), ESA (ESA106549), Minas Gerais

Viana, P.L., 1931, HUEFS (HUEFS0147172), Minas Gerais

Silva, C., 752, HUEFS (HUEFS0181927), Minas Gerais

F.M. Ferreira, 1148, K (K001106346), Minas Gerais

Chusquea sclerophylla Döll

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s) spathaceous** absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** muticous; **apex of the glume 4** muticous; **lemma** muticous; **pale** not observed.

DESCRIÇÃO ADICIONAL

Rhizomes unknown but almost certainly pachymorph and short-necked. **Culms** ca. 1 m tall, erect; internodes 3-3.5 cm long, ca. 0.4 cm in diameter, slightly flattened above the branch complement, waxy, glabrous, white waxy band absent. **Culm leaves** persistent, disintegrating, no complete examples available. **Nodes** at mid-culm with buds not seen; nodal line horizontal; supranodal ridge obscure; root primordia absent. **Branching** intravaginal; 1-5 subequal branches per node, straight, erect, 21-28 cm long, not rebranching. **Foliage leaves** 6 or 7 per complement; sheaths persistent, pubescent between the 2 or 3 marginal nerves, otherwise glabrous; outer ligule ca. 0.3 mm long, ciliolate; inner ligule 1 mm long, truncate, pubescent pseudopetiole ca. 1 mm long, distinct; blades 7.3-10.8 cm long, 0.8-1.1 cm wide, L:W = 9-10, lanceolate, not tessellate, green, glabrous, the base rounded, the apex subulate to short setose. **Synflorescences** 3-4 cm long, paniculate, narrow, the base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis, branches, and pedicels angular, scabrous, the pedicels 2-3 mm long. **Spikelets** 5.2-5.8 mm long, 1.2-1.3 mm wide, glabrous, laterally compressed; glumes I and II scalelike; glume I 1/10-1/5 the spikelet length; glume II ca. 1/8 the spikelet length; glumes III and IV mucronate; glume III 1/2-2/3 the spikelet length; glume IV ca. 2/3 the spikelet length; lemma mucronate, apex free; palea subequal to the fertile lemma or slightly shorter. **Flowers** unknown. **Fruit** unknown. **Habitat** in high elevation grassland at ca. 2,200 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação

Campo de Altitude

Distribuição Geográfica

Ocorrências confirmadas


Sudeste (Rio de Janeiro)

MATERIAL TESTEMUNHO

Gissi & da Silva, 219, ESA, RB,    (RB01120573), Rio de Janeiro

A.F.M. Glaziou, 6443, K,  (K000925253), Rio de Janeiro

A.F.M. Glaziou, 4311, P (P00625429), Rio de Janeiro, **Typus**

A.F.M. Glaziou, 6463, C, US,  (US00036593), Rio de Janeiro, **Typus**

Chusquea sellowii Rupr.

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** glabrous/pubescent; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** linear/lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/capitate; **bract(s)** spathaceous present/1; **apex glume 1** acute; **apex of the glume 2** acute; **apex of the glume 3** obtuse; **apex of the glume 4** obtuse; **lemma** 5 veins/7 veins/scabrous/apex obtuse; **palea** 4 veins/6 veins/weakly 2 keeled/apex obtuse/scabrous.

DESCRIÇÃO ADICIONAL

Culms 2–6 m long, scandent; internodes 7–20 cm long, (0.1–) 0.2–0.5 cm in diameter, terete, glabrous or with scattered appressed hairs, often somewhat hispid just below the node, white waxy band absent. **Culm leaves** (in the two specimens examined) 19.5–22.4 cm long, persistent, juncture of sheath and blade abaxially obscure; sheaths (7–) 17–20 cm long, 6.8–8 times as long as the blade, abaxially retrorsely scabrous, hispid toward the base, midrib abaxially distinguishable toward the apex, margins ciliate, sometime becoming glabrous toward the apex; inner ligules ca. 0.5 mm long, \pm truncate, ciliolate; blades ca. 2.5 cm long, narrowly triangular, persistent, non-pseudopetiolate, adaxially antrorsely scabrous, abaxially scabrid, midrib abaxially distinguishable for the full length, apex flat, acuminate-subulate; girdles ca. 2 mm long, scabrous-hispid, usually brown, more or less the same as the sheath. **Nodes** at mid-culm with one dome-shaped central bud subtended by a few smaller subsidiary buds in 1 (–2) constellate rows; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible, often slightly swollen, not usually prominent. **Branching** infravaginal; the central branch usually developing, as robust as the main culm, \pm horizontally oriented, at least initially; leafy subsidiary branches 4–8 (–14) per node, 10–32 cm long, 0.5–1 (–2) mm in diameter, geniculate, usually rebranching from the basal nodes, girdles brown, usually slightly darker than the sheaths, pubescent to pilose but sometimes glabrous. **Foliage leaves** 3–4 per complement; sheaths persistent, striate, keeled toward the apex, glabrous, rarely pilose or pubescent toward the margins at the apex, uniformly light brown, the overlapping margin glabrous or ciliate, summit extension 0.2–0.5 mm long, usually ciliolate; outer ligules 0.2–0.3 mm long, unlobed, erect, extending along the juncture of the summit extension and the inner ligule as a mere rim, ciliolate; inner ligules 0.5–1 mm long, rounded, glabrous; pseudopetioles 1–2 mm long, adaxially glabrous, abaxially pubescent, pulvinus brown, otherwise green; blades 3.6–15.7 cm long, 0.8–1.6 cm wide, L:W 4.5–10, linear-lanceolate to lanceolate, not tessellate, green, adaxially and abaxially glabrous, an abaxial tuft of hairs present at the base and on the pseudopetiole, midrib centric to slightly excentric (1.1–1.3), abaxially yellowish, \pm prominent for the lower 2/3 of its length, base often slightly asymmetrical, rounded to rounded-attenuate, the margins usually ciliate, rarely glabrous, apex acuminate. **Synflorescences** 1–1.5 cm long, 1–1.5 cm wide, paniculate capitate, usually just fully exerted, borne on leafy branches only, subtended by one spatheate bract, sheath 1–1.7 cm long, blade 2–5.6 cm long, green; main axis angular, straight, scabrous- or pubescent-hispid to densely pilose; branches 1–4 mm long and pedicels 0.2–2.5 mm long, angular, pulvinate, scabrous- to pubescent-hispid to densely pilose, subtended by bracts 0.2–1 mm long, the first branch subtended by a bract 0.5–9.5 mm long, narrowly attenuate. **Spikelets** (4.7–) 5.3–6.6 (–7.8) mm long, laterally compressed; glumes I and II acute, keeled, abaxially pilose, sometimes only along the keel; glume I 0.8–1.8 mm long, ca. 1/6 or less of the spikelet length, 1-nerved; glume II 1–2.1 mm long, ca. 1/5 the spikelet length, 3-nerved; glumes III and IV obtuse, abaxially scabrid on the upper 1/2–2/3, apically ciliate, 5-nerved; glume III 2.3–3 mm long, ca. 1/2 the spikelet length; glume IV 3.5–4.8 mm long, ca. 2/3 the spikelet length, 5-nerved; lemma 5.2–5.8 mm long, obtuse, margins connate just at the apex, abaxially scabrid, apically ciliate, 5- or 7-nerved; palea 5.2–5.8 mm long, \pm equaling the lemma, obtuse, abaxially scabrid for the upper two-thirds, apically ciliate, 4- or 6-nerved, 2-keeled, sulcate only near the apex, sulcus scabrid to scabrous. **Lodicules** 3, apically ciliate; anterior pair ca. 1.5 mm long, asymmetrical, the posterior one ca. 1 mm long. **Anthers** 3.5–4.2 mm long. **Fruits** not seen. **Habitat** in montane Atlantic forest at 1,150–1,800 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação

Floresta Ciliar ou Galeria, Floresta Ombrófila Mista

Distribuição Geográfica

Ocorrências confirmadas

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sul (Paraná, Rio Grande do Sul, Santa Catarina)

MATERIAL TESTEMUNHO

Clark, L.G. & M. Morel, 718, BHCB, Minas Gerais

F. Sellow, s.n., B, **Typus**

Zorzaneli, J.P.F., 713, VIES (VIES033030), Espírito Santo

Schwirkowski, P., 2740, FURB (FURB59171), Santa Catarina

Gasper, A.L. de, 3626, FURB (FURB38827), Santa Catarina

A. Dusén, 18104, S, São Paulo

A.A. Brade, 20874, RB, São Paulo

Schwirkowski, P., 1488, FURB (FURB49556), Santa Catarina

Funez, L.A., 8928, FURB (FURB65089), Santa Catarina

Kassner-Filho, A., 1192, FURB (FURB55011), Santa Catarina

Funez, L.A., 7205, FURB (FURB57897), Santa Catarina

Oliveira, A.A., 1326, FLOR (FLOR0059481), Santa Catarina

Oliveira, A.A. de, 1326, FURB (FURB38836), Santa Catarina

Oliveira, A.A., 2037, FLOR (FLOR0059483), Santa Catarina

Kassner-Filho, A., 789, FURB (FURB54410), Santa Catarina

Krieger & Brugger, 23867, RB, Minas Gerais

F.M. Ferreira et al., 730, RB, Minas Gerais

F.M. Ferreira et al., 1030, R, Minas Gerais

R. Forzza et al., 3524, RB, Minas Gerais

Arbo et al., 5275, SPF, K, Minas Gerais

L. Clark et al., 934, MBM, RB, SJRP, Paraná

L. Clark et al., 1196, MBM, Paraná

Cordeiro & Cruz, 1159, MBM, Paraná

Rambo, 53787, PACA, Rio Grande do Sul

Longhi-Wagner & Schmidt, 10164, ICN, Rio Grande do Sul

R. Schmidt, 1407, ICN, Rio Grande do Sul

A. Mota, 383, HUEFS, Rio Grande do Sul

Schmidt & Araujo, 1515, ICN, Rio Grande do Sul

L. Clark & P. Windisch, 879, SJRP, Rio Grande do Sul

Longhi-Wagner & Schmidt, 10175, ICN, Rio Grande do Sul

A. Chase, 9885, US, São Paulo

L. Clark & M. Morel, 617, SJRP, SP, RB, São Paulo

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Mota, A.C. 2013. Sistemática de *Chusquea* subgênero *Rettbergia* (Bambusoideae, Poaceae). Tese de doutorado Programa de Pós-Graduação em Botânica da Universidade Estadual de Feira de Santana (UEFS). Feira de Santana.

Chusquea tenella Nees

Este tratamento é composto pelos seguintes táxons: *Chusquea tenella*, .

Tem como sinônimo

heterotípico *Chusquea tenella* var. *latifolia* Dutra

DESCRIÇÃO

Stem: rhizome rarely amphimorph; culm solid; orientation of the culm scandent; colour uniform; branching infravaginal; bud main triangular; indumentum glabrous; wax below of the node absent. **Leaf:** form of the leaf of the shoot oval-lanceolate; leaf of the culm persistent/differentiated; form of the leaf of the culm lanceolate/ovate. **Inflorescence:** synflorescence weakly paniculate to racemose; bract(s) spathaceous absent; apex glume 1 obtuse; apex of the glume 2 obtuse; apex of the glume 3 muticous; apex of the glume 4 muticous; lemma 5 veins/7 veins/glabrous/apex free/muticous; pale 4 veins/6 veins.

DESCRIÇÃO ADICIONAL

Rhizomes unknown. **Culms** 3–4 (–6) m tall, erect at the base, arching to scandent, clambering or trailing above; internodes 20–30 cm long, 0.5–1 (–1.5) cm in diameter, solid or irregularly hollow, strigose or hispid, white waxy band absent. **Culm leaves** with sheaths (5–) 8.3–21.2 cm, 0.7–2 times the length of the blade, persistent, abaxially pubescent-hirsute, mottled (mainly visible when young), keeled toward the apex, apex symmetrically concave, margins ciliate, the cilia tan to golden, margins typically not becoming scarios, sheath summit extension 1.2–10 mm long, glabrous, erect, strongly unequal; girdle 0.5–5 mm wide, flat and with a ring of tan to golden cilia at the juncture with the sheath, cilia 4–5 mm long; outer ligule a minute rim, sometimes ciliate; inner ligule (1.5–) 3–11 mm long; pseudopetiole 2–9 mm long, abaxially strongly ciliate at the base, adaxially glabrous; blades (5.5–) 7–20 (28–34) cm long, 1.5–4.4 (4.8–5.7) cm wide, L:W = 3–7, lanceolate, reflexed, apex acuminate, flat. **Nodes** at mid-culm with 6–10 buds, consisting of one larger triangular central bud subtended by 5–9 smaller, closely adjacent buds, with 1–2 per lateral set; nodal line dipping slightly below the bud/branch complement; supranodal ridge conspicuous. Branching infravaginal; the central branch if developed ascending; 7–20 subsidiary branches subtending the central branch, 2–4 of the subsidiaries more robust. **Foliage leaves** 6–15 per complement; sheaths persistent, often maculate, slightly puberulent, the base ciliate, overlapping margin ciliate, sheath summit extensions 1–7 mm long, erect, acute, strongly unequal, densely ciliate; outer ligule ca. 0.5 mm long, erect, ciliate; inner ligule 1–7 mm long, abaxially sparsely pubescent; pseudopetiole 1–7 mm long, adaxially glabrous, abaxially scabrous to strongly ciliate; blades 4.9–22.8 cm long, 0.6–4.1 cm wide, L:W=3.8–14.2, ovate-lanceolate, not tessellate, green, adaxially glabrous, abaxially glabrous except pubescent at the base on both sides of the midrib, the blade often becoming discolored on both surfaces in this region, pubescence sometimes extending along both sides of the midrib for most of the length, or sometimes completely pubescent, base ± symmetrical, attenuate, margins scaberulose, apex acuminate. **Synflorescences** 2.5–5.1 cm long, 0.5–1 cm wide, racemose or weakly paniculate, straight to slightly curved, branches and pedicels appressed, borne on longer leafy and shorter non-leafy branches; rachis glabrous; pedicels 1–4 mm long, glabrous or scabrous. **Spikelets** (8) 9–11.5 mm long, 1.5–2 mm wide; glumes I and II glabrous, but glume I sometimes abaxially finely pubescent, nerves absent; glume I 0.5–0.8 mm long, 1/10–1/20 the spikelet length, apex acute to obtuse; glume II 0.5–1.3 mm long, 1/10–1/20 (–1/8) the spikelet length, apex acute to obtuse or irregular; glumes III and IV slightly ciliate at the base, 3–5-nerved; glume III (3.5–) 4.5–5.2 mm long, 1/3–3/5 the spikelet length, apex acuminate; glume IV 4.4–6 mm long, 1/2–3/5 the spikelet length, apex acute; lemma 7.6–10 mm long, apex acute to mucronate, apex free, margins slightly ciliate towards the apex, 5–7-nerved; palea 8–9.5 mm long, subequal to the lemma but occasionally overtopping it, 4–6-nerved, weakly keeled towards the apex, sulcus absent, apex biapiculate, ciliate. **Lodicules** 3, ovate, apex acute; the anterior pair ca. 1.5 mm long, the posterior one ca. 1.5 mm long. **Anthers** ca. 5 mm long. **Fruit** not seen. Habitat in Atlantic forest and forest remnants,

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, não é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica, Pampa

Tipos de Vegetação

Floresta Ciliar ou Galeria, Floresta Estacional Semidecidual, Floresta Ombrófila (Floresta Pluvial), Floresta Ombrófila Mista

Distribuição GeográficaOcorrências confirmadas

Sudeste (São Paulo)

Sul (Paraná, Rio Grande do Sul, Santa Catarina)

MATERIAL TESTEMUNHO

A.B. Joly, s.n., K, São Paulo

Clark et al., 1036, MBM, Santa Catarina

Klein & Bresolin, 8283, HBR, Santa Catarina

Klein & Bresolin, 9477, HBR, Santa Catarina

Ule, 1340, P, Santa Catarina

A.R. Reitz, 15383, HBR, Santa Catarina

A.R. Reitz, 14763, HBR, Santa Catarina

Clark, L.G. & P. Windisch, 725, SP, São Paulo

B. Rambo, 41560, US, Rio Grande do Sul

Schwirkowski, P., 3454, FURB (FURB65236), Santa Catarina

Lhotsky, J., sn., US, **Typus**

Swallen, 9004, US, Paraná

Silva et al., 1690, MBM, Paraná

Clark et al., 918, SP, Rio Grande do Sul

Dutra, 416, SI, Rio Grande do Sul

Dutra, 1545, ICN, Rio Grande do Sul

G. Hatschbach, 1403, SI, Paraná

G. Hatschbach, 55767, MBM, Paraná

Lindeman et al., 24062, CEN, Rio Grande do Sul

Palacios-Cuezzo, 474, LIL, Rio Grande do Sul

Rambo, 42473, US, Rio Grande do Sul

Rambo, 47076, US, Rio Grande do Sul

Soares, 191, ICN, Rio Grande do Sul

Clark & Oliveira, 891, SP, Santa Catarina

Clark & Oliveira, 904, SP, Santa Catarina

Clark et al., 1032, MBM, Santa Catarina

Clark et al., 1045, SP, Santa Catarina


Clark et al., 1049, SP, Santa Catarina

Clark, L.G. & P. Windisch, 874, SP, Santa Catarina

Dusen, 17788, K, Santa Catarina

Klein, 5443, HBR, Santa Catarina

Klein, 7797, HBR, Santa Catarina

J. Lhotsky, s.n., US,  (US00028333), **Typus**

Kassner-Filho, A., 450, RB, FURB (FURB53821), Santa Catarina

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Chusquea tenuiglumis Döll

Este tratamento é composto pelos seguintes táxons: *Chusquea tenuiglumis*, *Chusquea tenuiglumis* var. *laxiuscula*, *Chusquea tenuiglumis* var. *tenuiglumis*.

DESCRIÇÃO

Stem: rhizome rarely amphimorph; **culm** solid/rarely fistulose; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** lanceolate/ovate. **Inflorescence: synflorescence** weakly paniculate to racemose/contracted; **bract(s) spathaceous** absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** muticous; **apex of the glume 4** muticous; **lemma** 7 veins/apex acute; **pale** 6 veins/weakly 2 keeled.

DESCRIÇÃO ADICIONAL

Rhizomes unknown. **Culms** 2–8 m tall, erect at the base, arching or scandent; internodes 20–30 (–36) cm long, 1–1.5 cm in diameter, solid, glabrous, white waxy band absent. **Culm leaves** with sheaths 12.5–27.5 cm, 0.8–1.6 times as long as the blade, persistent, abaxially glabrous or sparsely appressed-hispid, sometimes mottled when young, apex ± horizontal, margins smooth, becoming scarios, sheath summit extensions 0.6–5 mm long, papery, glabrous, erect, strongly unequal; girdle 0.5–4 mm wide, glabrous to finely pubescent, a glabrous corky ridge to 1 mm wide present at the juncture with the sheath; outer ligule 1–4 mm wide; inner ligule 9–38 mm long, asymmetrical, papery; pseudopetioles 3–12 mm long, abaxially strongly ciliate, adaxially glabrous; blades 13–26.2 cm long, 2.4–5.5 cm wide, L:W = 3.8–6, lanceolate, pseudopetiolate, slightly spreading or reflexed, apex flat, acuminate. **Nodes** at mid culm with 6–9 buds, consisting of one larger central bud subtended by 5–8 smaller subsidiary buds, 2 per lateral set; nodal line dipping slightly below the bud/branch complement; supranodal ridge conspicuous. **Branching** infravaginal; 7–24 branches per node, consisting of 2–4 robust and 5–20 smaller subsidiaries subtending the central bud/branch, sometimes the subsidiary branches subequal. **Foliage leaves** (3–) 5–7 (–8) per complement; sheaths persistent, glabrous or sparsely appressed-hispid, more or less strongly keeled, overlapping margin glabrous or ciliate, if ciliate then the sheath also hispid on that side, margins becoming scarios, summit glabrous, sheath summit extensions 4–30 mm long, erect, acute, strongly unequal, glabrous; outer ligules 0.5–5 mm long, erect to reflexed, often split; inner ligules 3.5–40 mm long, glabrous, papery, adnate to the longer sheath summit extension; pseudopetioles 2–6 mm long, adaxially glabrous, abaxially strongly hispid, hairs often extending along the midrib for a short distance; blades 6.6–24.5 cm long, 1–5.6 cm wide, L:W=3.7–8.5 (–11.9), ovate-lanceolate, not tessellate, green, adaxially and abaxially glabrous, base ± symmetrical to slightly asymmetrical with the narrow side attenuate, the wide side rounded, apex acuminate, margins scabrid. **Synflorescences** 5–10 cm long, 1–1.5 cm wide, paniculate, contracted, straight, borne on longer leafy and shorter leafless branches, spatheate bracts absent; rachis glabrous; pedicels 1.5–4 mm long, finely scabrous-pubescent. **Spikelets** 8.4–12.4 mm long, ca. 2 mm wide; glumes I and II glabrous, abaxially scabrid at the base, nerveless, apex obtuse to truncate and slightly erose; glume I 0.6–1 mm long, 1/15–1/20 the spikelet length; glume II 0.8–1.2 mm long, 1/10–1/20 the spikelet length; glumes III and IV 3–5-nerved; glume III 5.1–6.7 mm long, 1/2–3/5 (–2/3) the spikelet length, apex acuminate, margins ciliate; glume IV 6.2–7 mm long, 3/5–2/3 (–7/10) the spikelet length, apex acuminate to mucronate, margins ciliate towards the base; lemma 8.7–11 mm long, apex acute, free, margins slightly ciliate towards the apex, 7-nerved; palea 8.5–11.3 mm long, 6-nerved, weakly sulcate only towards the apex, apex acute, ciliate. Lodicules lanceolate, apex acute; the anterior pair ca. 1.3 mm long, the posterior one ca. 1.1 mm long. **Anthers** ca. 4.5 mm long. **Fruit** not seen. **Habitat** in Atlantic forest and disturbed forest vegetation at (100–) 530–1,180 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Cerrado, Mata Atlântica

Tipos de Vegetação

Cerrado (lato sensu), Floresta Estacional Semidecidual, Floresta Ombrófila (Floresta Pluvial)

Distribuição Geográfica

Ocorrências confirmadas

Sudeste (Minas Gerais, Rio de Janeiro, São Paulo)

Sul (Santa Catarina)

CHAVE DE IDENTIFICAÇÃO


1. Foliage leaf blades ovate-lanceolate; glume III 1/2-3/5 (-2/3) the spikelet length and glume IV 3/5-2/3 (-7/10) the spikelet length..C. tenuiglumis var. tenuiglumis

1. Foliage leaf blades lanceolate; glumes III and IV ca. 1/2 the spikelet length..C. tenuiglumis var. laxiuscula

MATERIAL TESTEMUNHO

Clark, L.G. & M. Morel, 762, ISC, BHCB, SP, Minas Gerais

Clark, L.G. & M. Morel, 839, ISC, BHCB, SP, Minas Gerais

Alves, R.J.V., 7669, R,  (R010001687), Rio de Janeiro

Warming, s.n., C, Minas Gerais, **Typus**

Soderstrom & Sucre, 1918, ISC, US, NY, K, Rio de Janeiro

Clark, L.G. & P. Windisch, 864, SP, ISC, Santa Catarina

Clark, L.G. & M. Morel, 707, ISC, BHCB, SP, Minas Gerais

J.A. Lombardi, 5824, HUEFS, BHCB, Minas Gerais

Clark, L.G. & P. Windisch, 1058, ISC, HUEFS, SP, São Paulo



Clark, L.G. & M. Morel, 706, ISC, BHCB, SP, Minas Gerais

A. F. Regnell, 1426, S, Minas Gerais, **Typus**

Clark, L.G. & P. Windisch, 734, SP, ISC, BHCB, Minas Gerais

Ferreira et al., 1946, HUEFS, Minas Gerais

Silva & Machado, 167, VIC, Minas Gerais

Thomas R. Soderstrom, 1918, RB, 228697,   (RB00613947), Rio de Janeiro

T.R. Soderstrom, 1918, P (P02663274), Rio de Janeiro

BIBLIOGRAFIA

Attigala, L. R., A. F. Fuentes C. and L. G. Clark. 2017. *Chusquea* sect. *Tenellae* (Poaceae: Bambusoideae), a taxonomic revision of a new section from South America. *Phytotaxa* 324(3): 239-265. DOI: <https://doi.org/10.11646/phytotaxa.324.3.2>

Chusquea tenuiglumis Döll var. *tenuiglumis*

Tem como sinônimo

homotípico *Chusquea tenuiglumis* var. *subcylindrica* Döll

DESCRIÇÃO

The description is the same as for the species.

Forma de Vida

Bamboo

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação

Floresta Ombrófila (Floresta Pluvial)

Distribuição Geográfica

Ocorrências confirmadas

Sudeste (Minas Gerais, Rio de Janeiro, São Paulo)

Sul (Santa Catarina)

MATERIAL TESTEMUNHO

A. F. Regnell, 1426, S, **Typus**

Chusquea tenuiglumis var. *laxiuscula* Döll

DESCRIÇÃO

Rhizomes unknown. Culms unknown. Culm leaves unknown. Nodes and branching unknown. Foliage leaves with sheaths persistent; blades 9-12.5 cm long, 1.1-1.8 cm wide, L:W = 6.9-8.2, lanceolate, not tessellate, green, base more or less symmetrical to slightly asymmetrical, apex acute, acuminate. Synflorescences 5-7 cm long, paniculate, borne on longer leafy and shorter leafless branches, subtending spatheate bract absent. Spikelets with glumes III and IV ca. 1/2 the spikelet length; lemma with apex free. Flowers unknown. Habitat in semi-deciduous Atlantic forest.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Cerrado

Tipos de Vegetação

Cerrado (lato sensu)

Distribuição Geográfica

Ocorrências confirmadas

Sudeste (Minas Gerais)

MATERIAL TESTEMUNHO

Warming, s.n., C, Minas Gerais

BIBLIOGRAFIA

Attigala, L. R., A. F. Fuentes C. and L. G. Clark. 2017. *Chusquea* sect. *Tenellae* (Poaceae: Bambusoideae), a taxonomic revision of a new section from South America. *Phytotaxa* 324(3): 239-265. DOI: <https://doi.org/10.11646/phytotaxa.324.3.2>

Chusquea urelytra Hack.

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** scandent; **colour** uniform; **branching** infravaginal; **bud main** developed/circular/orientation horizontal; **indumentum** hispid below node; **wax below of the node** absent. **Leaf: form of the leaf of the shoot** lanceolate/oval-lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence: synflorescence** paniculate/capitate; **bract(s) spathaceous** present/1; **apex glume 1** awned; **apex of the glume 2** awned; **apex of the glume 3** awned; **apex of the glume 4** subulate; **lemma** 7 veins/pilose/scabrous/mucous/apex acute; **palea** 6 veins/weakly 2 keeled/apex obtuse.

DESCRIÇÃO ADICIONAL

Culms 3.5–12 m long, scandent; internodes ca. 28 cm long, 0.2–1 cm in diameter, terete, hispid just below the node, white waxy band absent. **Culm leaves** 23–59 cm long, persistent, juncture of sheath and blade abaxially obscure; sheaths 21–42.3 cm long, 2.5–11 times as long as the blade, abaxially retrorsely scabrous, midrib abaxially distinguishable toward the apex, the overlapping margin ciliate for the full length, the other margin ciliate near the apex, free at the base; girdles 1.5–3 mm long, glabrous or villous, dark brown; inner ligules 0.2–1 mm long, irregular, more or less erose to ciliate; blades 2.3–17 cm long, narrowly triangular, non-pseudopetiolate, persistent, adaxially pubescent, abaxially glabrous, the midrib visible abaxially for the full length, apex flat, acuminate, margins glabrous. **Nodes** at mid-culm with one dome-shaped central bud subtended by 15–22 smaller subsidiary buds in 2 constellate rows; nodal line dipping markedly below the bud/branch complement; supranodal ridge visible but not prominent. **Branching** infravaginal; the central branch sometimes developing, as robust as the main culm, ± horizontally oriented at least initially; leafy subsidiary branches 8–14 (–22) per node, 16–33 (–52) cm long, 1–2 mm, geniculate at the lower nodes, sometimes rebranching at the lower nodes, especially when flowering, girdles dark brown, pilose. **Foliage leaves** 3–7 (–11) per complement; sheaths persistent, striate, ± strongly keeled toward the apex, glabrous, hispid, or with a patch of hairs near the apex, often mottled, the overlapping margin ciliate, summit extension 0.5–1.5 mm long, ciliate; outer ligules 0.1–0.3 mm long, unlobed, erect, extending along the juncture of the sheath summit and the inner ligule as a mere rim, ciliate; inner ligules 0.7–2 mm long, usually rounded, glabrous or pubescent; pseudopetioles 1.5–4 mm long, abaxially pubescent, pulvinus dark brown to black, otherwise the pseudopetiole green; blades 7.5–15.4 cm long, 0.8–1.5 cm wide, L:W 7–15, lanceolate to less commonly ovate-lanceolate, not tessellate, green, adaxially glabrous, abaxially usually pilose, sometimes glabrous, with a tuft of hairs on both sides of the midrib at base, base rounded-attenuate, often slightly asymmetrical, midrib slightly excentric (1.1–1.4), adaxially distinguishable at the base, abaxially yellowish, ± prominent to visible for nearly the full length, the margins scabrous, apex acuminate. **Synflorescences** 1–3 cm long, 1.5–2.5 cm wide, paniculate capitate, fully exerted from the subtending leaf or the base retained, borne on leafy branches only, spatheate bract 1, sheath 1.4–2.7 cm long, blade (0.6–)2–6.2 cm long, green; main axis angular, straight, glabrous but usually pubescent below the lowermost branch; branches ca. 0.5 cm long at the base, angular, glabrous, the ridges often scabrid, not pulvinate, subtended by small bracts, that subtending the lowermost branch 1–5.5 (–14) mm long, acuminate, sometimes spathe-like, the sheaths 1–2.2 cm long, the blades 0.6–0.9 cm long, bracts subtending higher branches 0.2–1 mm long; pedicels 1–3 mm long, angular, glabrous, the ridges often scabrid, not pulvinate, often subtended by minute bracts. **Spikelets** 7–10 (–10.8) mm long, laterally compressed; glumes I and II awned, keeled, abaxially scabrid toward the apex, pilose on the midrib and awn; glume I (5.5–)6.6–13.1 mm long including the awn, ca. (0.75–)1–1.4 the spikelet length, 3-nerved, the awn 5–12 mm long; glume II (5–)6.8–10.7 mm long including the awn, ca. (0.75–)0.9–1.3 the spikelet length (2/3), 3- or 5-nerved, the awn 4–9 mm long; glumes III and IV 5- or 7-nerved; glume III (4.3–)5.1–7.1 mm long including the awn, ca. 2/3 the spikelet length, awned, abaxially scabrid on the upper 1/3 and the awn, the awn 1.2–2.1 mm long; glume IV (5.5–)6.1–8.9 mm long, more or less equal to the spikelet length, subulate, abaxially scabrid toward the apex; lemma 6.3–8.2 mm long, acute-mucronate, margins connate just at the apex, abaxially scabrid and pilose on the upper half, 7-nerved; palea 6.1–8.3 mm long, equal to the lemma or slightly longer, 6-nerved, 2-keeled, sulcate only toward the apex, the sulcus scabrous, adaxially pubescent-hispid at the apex. **Lodicules** 3, apically ciliate; the anterior pair 2–2.8 mm long, the posterior one 1–2.7 mm long. **Anthers** 3.8–5.2 mm long. **Fruits** not seen. **Habitat** in montane Atlantic forest at 550–1,350 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação



Floresta Ciliar ou Galeria, Floresta Estacional Semidecidual, Floresta Ombrófila (Floresta Pluvial)

Distribuição GeográficaOcorrências confirmadas

Sudeste (Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo)

Sul (Paraná, Rio Grande do Sul, Santa Catarina)

MATERIAL TESTEMUNHO

J. Cordeiro & L. Clark, 1156, MBM, Paraná
 Romão, G.O., 1559, ESA (ESA106810), Paraná
 A.F.M. Glaziou, 17920, W, Rio de Janeiro, **Typus**
 Bernacci, L.C., UEC 28478, ESA (ESA011024), São Paulo
 L. Clark et al., 1051, SJRP,  (SJRP00012772), Paraná
 L. Clark & M. Morel, 823, SJRP, São Paulo
 A. Custodio Filho, 532, SP, GUA, São Paulo
 A. Chase, 9606, R, Minas Gerais
 Kuhlmann, 2916, US, Minas Gerais
 L. Clark et al., 1050, SJRP, Paraná
 L. Clark et al. 1052, 1052, MBM, Paraná
 P. Windisch & L. Clark, 5643, SJRP, Paraná
 Cordeiro & Silva, 226, MBM, Paraná
 L. Clark & W. Oliveira, 929, MBM, Paraná
 A.A. Brade, 15056, RB, Rio de Janeiro
 A. Mota, 281, HUEFS, Rio de Janeiro
 L. Clark et al., 810, SJRP, Rio de Janeiro
 Kuhlmann, 3144, HUEFS, SP, São Paulo
 Kuhlmann, 3136, SP, São Paulo
 L. Clark & P. Windisch, 727, SJRP, São Paulo
 L. Clark et al., 802, RB, SJRP, Rio de Janeiro
 Korte & Kniess, 2944, FURB, Santa Catarina
 L. Clark & P. Windisch, 861, SJRP, Santa Catarina
 R. Klein, 4613, MBM, Santa Catarina
 Smith, 1978, FLOR, Santa Catarina
 Schmitt et al., 1704, FURB, Santa Catarina
 Bernacci, 28478, UEC, São Paulo
 H.C. de Lima, s.n., RB, 291947 (RB00449146), Rio de Janeiro
 Verdi, M., 2215, FURB (FURB04610), Santa Catarina
 Shirata, MT, 4105, HUCP,  (HUCP00004821), Paraná

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Mota, A.C. 2013. Sistemática de *Chusquea* subgênero *Rettbergia* (Bambusoideae, Poaceae). Tese de doutorado Programa de Pós-Graduação em Botânica da Universidade Estadual de Feira de Santana (UEFS). Feira de Santana.

Chusquea wilkesii Munro

DESCRIÇÃO

Stem: rhizome pachymorph/rarely amphimorph; culm solid; **orientation of the culm** erect on the base with apex arcuate/scandent; **colour** wine-coloured/spot not uniform; **branching** infravaginal; **bud main** developed/triangular/orientation vertical; **indumentum** glabrous/pilose/scabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/open; **bract(s)** **spathaceous** present/1; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** awned; **apex of the glume 4** awned; **lemma** 7 veins/scabrous/glabrous/apex free/awned; **pale** 2 veins/4 veins.

DESCRIÇÃO ADICIONAL

Rhizomes amphimorph, necks of pachymorph segments 0.5–1 cm long. **Culms** 2–4 (–6) m long, erect at the base then scandent or clambering and hanging; internodes 18–24 cm long, 0.5–1 cm in diameter, green with purple spots, scabrous, puberulous below the node with hairs sparser toward the base of the internode, glabrous when mature, white waxy band absent. **Culm leaves** 6–10 cm long, abaxially retrorsely scabrous, becoming scabrid and hirtellous toward the base, persistent, juncture of sheath and blade abaxially indistinguishable or nearly so; sheaths 5–7 cm long, ca. 2.7 times as long as the blade, sheath summit extensions absent, overlapping margin ciliate, fused at the base for about 0.5 cm; girdle 0.2–3 mm wide, pubescent, a short corky ridge present at the juncture of the girdle and sheath; inner ligules ca. 0.5 mm long; blades 0.7–3 cm long, triangular, non-pseudopetiolate, glabrous, weakly tessellate, erect, persistent, apex setose, flat, margins ciliate. **Nodes** at mid-culm with one broadly triangular central bud subtended by 5–25 smaller subsidiary buds in a constellate arrangement; nodal line dipping only slightly below the bud/branch complement; supranodal ridge prominent. **Branching** infravaginal; central branch developing tardily or not at all, usually becoming geniculate, as robust as the main culm; leafy subsidiary branches 7–25 per node, 12.5–46 cm long, geniculate. **Foliage leaves** 5–10 (–13) per complement; sheaths persistent, scabrous, margins scarious, the overlapping margin ciliate toward the apex; outer ligules 0.5–2 mm long, glabrous; inner ligules 1–9 mm long, acute; pseudopetioles 1–2 mm long; blades 5–16 cm long, 0.8–1.8 cm wide, L:W = 5.3–7.3 (–8.7), lanceolate, not tessellate, green, adaxially glabrous, abaxially glabrous to scabrous or puberulous, base attenuate to rounded-attenuate, the margins scabrous, apex acuminate. **Synflorescences** 6–8 cm long, paniculate, open, borne on leafy subsidiary branches only, subtended by one ± spatheate bract; rachis angular, scabrous to pilose; branches and pedicels angular, pilose, the lowermost primary branches strongly divergent to reflexed at maturity and 1.5–5 cm long, their secondary branches spreading; pedicels 2.5–5 mm long, pilose. **Spikelets** 6–8 mm long including the awns, 1–1.5 mm wide, laterally compressed; glumes I and II 0.2–0.4 mm long, scalelike, obtuse, glabrous; glumes III and IV extending ca. ½ the length of the spikelet, abaxially scabrid-pubescent, margins ciliate toward the apex, awned; glume III 3–4 mm long, 1–2 mm wide, 1-3-nerved, awn 0.5–1 mm long; glume IV 3.5–4 mm long, 1–2 mm wide, 5-7-nerved, awn 0.3–0.6 mm long; lemma 6–7 mm long, 7-nerved, short-awned, awn ca. 0.1 mm long, glabrous at the base, scabrid-pubescent toward the apex, apex free, margins ciliate toward the apex; palea 5–7 mm long, 2–4-nerved, scabrous at the apex, sulcate for nearly the full length, sulcus pubescent. **Stamens** 3; anthers 2–4 mm long. **Fruit** not seen. **Habitat** in montane Atlantic forest, gallery forest and elfin forest at 1,350-1,410 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica















Tipos de Vegetação

Floresta Ciliar ou Galeria, Floresta Ombrófila (Floresta Pluvial)

Distribuição GeográficaOcorrências confirmadas

Sudeste (Minas Gerais, Rio de Janeiro)

MATERIAL TESTEMUNHO

Ferreira, FM, 684, SPF,  (SPF00190702), Minas Gerais
Santos Lima, 13263, RB, 25291,  (RB00592888), Rio de Janeiro
Ferreira, F.M., 1028, ESA (ESA106273), São Paulo
L. Clark, 781, SJRP,  (SJRP00012783), Minas Gerais
Heiden, G, 877, SPF,  (SPF00186578), Rio de Janeiro
Andrade, PM, 1081, SPF,  (SPF00106449), Minas Gerais
Wilkes, C., s.n., US, 1021548, Rio de Janeiro, **Typus**
Ferreira, F.M., 684, RB, 405911,  (RB00551853), Minas Gerais
Ferreira, F.M., 1147, RB, 443926,   (RB00551116), Minas Gerais
C. Baez, 387, RB,  (RB01084841), Rio de Janeiro
Ferreira, F.M., 1133, RB, 443927,   (RB00551089), Minas Gerais
Ferreira, F.M., 1207, RB, 443978,  (RB00551084), Minas Gerais
F.M. Ferreira, 1126, RB, 443920,   (RB00551096), Minas Gerais

Chusquea windischii L.G.Clark

DESCRIÇÃO

Stem: rhizome pachymorph; **culm** solid; **orientation of the culm** erect; **colour** uniform; **branching** intravaginal; **bud** main developed/triangular/orientation vertical; **indumentum** glabrous; **wax below of the node** absent. **Leaf:** **form of the leaf of the shoot** lanceolate; **leaf of the culm** persistent/deciduous/differentiated; **form of the leaf of the culm** triangular. **Inflorescence:** **synflorescence** paniculate/contracted; **bract(s)** spathaceous absent; **apex glume 1** obtuse; **apex of the glume 2** obtuse; **apex of the glume 3** muticous; **apex of the glume 4** muticous; **lemma** 7 veins/muticous; **pale** 4 veins/2 mucronate.

DESCRIÇÃO ADICIONAL

Rhizomes pachymorph, short-necked. **Culms** to ca. 1 m tall, erect; internodes 6-8 cm long, to ca. 1 cm in diameter, shallowly sulcate above the branch complement, waxy, glabrous, white waxy band absent. **Culm leaves** 10.6-13 cm long, persistent until the subsidiary branches rebranch, then deciduous, juncture of the sheath and blade abaxially a more or less horizontal, indistinct line; sheaths 6.4-9.2 cm long, 1.5-2.8 times as long as the blade, more or less triangular, abaxially scabrid for the upper 2/3, margins glabrous to sparsely apically ciliate on the overlapping margin; girdle 1-2 mm wide, glabrous; inner ligule 1-2 mm long, slightly irregular, ciliolate; blades 3.2-4.2 cm long, triangular, non-pseudopetiolate, erect, persistent, abaxially glabrous, adaxially retrorsely scabrid, the apex subulate, flat. **Nodes** at mid-culm with the one triangular central bud flanked by 2-4 smaller subsidiary buds on each side; nodal line more or less horizontal; supranodal ridge prominent; root primordia sometimes replacing the supranodal ridge at the more basal nodes. **Branching** intravaginal; central branch 15-30 cm long, usually curving horizontally away from the main culm, then curving upwards, rebranching; leafy subsidiary branches 4-8 per node, 7-15 (21) cm long, more or less erect, sometimes curving, often one subsidiary branch on each side of the central branch more robust, up to twice the diameter of the other subsidiaries. **Foliage leaves** 4-8 per complement; sheaths persistent or deciduous, glabrous to pubescent between the nerves; outer ligule 0.1-0.3 mm long, glabrous, somewhat irregular; inner ligule 1.5-2 mm long, rounded, glabrous; pseudopetiole 0.5 (-1) mm long, distinct, often conspicuously pulvinate; blades 3.6-5.9 cm long, (0.5-) 0.8-1 cm wide, L:W = 5.5-8.6, lanceolate, not tessellate, green, glabrous, base rounded to rounded-attenuate, the apex subulate. **Synflorescences** 1.5- 2 cm long, paniculate, narrow, the base retained within the subtending sheath, borne on leafy branches only, subtending spatheate bracts absent; rachis, branches, and pedicels angular, pubescent-scabrous, the edges scabrous; branches to 1 cm long, appressed; pedicels 2-3.5 mm long. **Spikelets** 4.3-4.9 mm long, 1.1-1.2 mm wide, glabrous more or less terete. Glumes I and II scalelike, less than 1/20 the spikelet length; glumes III and IV 2.8-3.2 mm long, ca. 2/3 the spikelet length, mucronate, 3-nerved; lemmas 4.3-4.8 mm long, shortly mucronate, apex free, 7-nerved; paleas 4.1-4.7 mm long, subequal to the fertile lemma, sulcate only toward the apex, bimucronulate, 4-nerved, the sulcus scabrous-pubescent. **Lodicules** unknown. **Stamens** unknown. **Fruit** unknown. **Habitat** in high elevation grasslands at ca. 1,700 m.

Forma de Vida

Bamboo

Substrato

Terrestrial

DISTRIBUIÇÃO

Nativa, é endêmica do Brasil

Domínios Fitogeográficos

Mata Atlântica

Tipos de Vegetação





Campo de Altitude



Distribuição Geográfica


Ocorrências confirmadas




Sul (Santa Catarina)

MATERIAL TESTEMUNHO

Clark & Windisch, 869A, US, 3288027,  (US00502228), US, 3288026,  (US00502227), NY, 373310,  (NY00651035), K, 373310,  (K000925376)

Clark et al., 1047, SJRP, 3288027,  (SJRP00012782), NY, 3288027,  (NY00651036), MBM, 3288027 (MBM194600), SJRP Cervi, A.C., 10081, HUEFS (HUEFS0208805), HCF (HCF000005890), HCF (HCF000005853), FURB (FURB07750), FLOR (FLOR0061114), Santa Catarina

Verdi, M., 5851, RB, 3288027,  (RB01400097), FURB, 3288027 (FURB04611), Santa Catarina

Clark, L.G. et al., 1046, SP, 373310,  (SP003090), SJRP,  (SJRP00012781), NY,  (NY00578984), MO (MO128931), MBM (MBM194601), Santa Catarina, **Typus**