

# Character List for GrassWorld

- #1. <Author>/
- #2. <Published in>/
- #3. Source of coding: <Intended as a rough guide to reliability; no list of sources is currently maintained>/
- #4. Year Coded:/
- #5. <Whether regarded by K as synonym or new>/
  - 1. Regarded by K as a synonym of/
  - 2. Not on *GrassBase*/
  - 3. more checking of status required/
- #6. <Grass Literature>/
  - 1. NW/
  - 2. Mez/
  - 3. Flora of China/
  - 4. Farrelly/
  - 5. Bamboos of the World/
- #7. **Accepted by**:/
  - 1. R.J.Soreng et al., *Catalogue of New World Grasses* (2000–2003)/
  - 2. W.D.Clayton & K.Harman, *GrassBase* (2008)/
  - 3. U. Quattrocchi, *CRC World Dictionary of Grasses* (2006)/
  - 4. D.Sharp, D. & B.K.Simon, *AusGrass* (2002)/
  - 5. E.Edgar, & H.Connor, *Flora of New Zealand Gramineae 5* (2000)/
  - 6. S-L Chen et al, *Flora of China 22* (Poaceae) (2006)/
  - 7. J.F.Veldkamp, Poaceae ms (*Flora Malesiana*)/
  - 8. N.L.Bor, Grasses of Burma, Ceylon, India and Pakistan (1960)/
  - 9. T.G.Tutin et al, *Flora Europaea 5* (1980)/
  - 10. N.Tsvelev, *Grasses of the Soviet Union* (1983)/
  - 11. T.Koyama, *Grasses of Japan and its neighboring regions* (1987)/
  - 12. W.D.Clayton & N.Snow, Key to Pacific Grasses (2009)/
- #8. **Old Grass Literature**/
  - 1. Trinius, C.B. (1828–1836). <Species graminum iconibus et decriptionibus illustravit. Petropoli [St Petersburg]>/
  - 2. Kunth C.S. (1829). <Révision des Graminées. in F.H.A. Humboldt & A.J.A. Bonpland (eds), Voyage aux régions équinoxiales du Noveau Continent, fait en 1799–1804, partie 6, Botanique, section 6. Librairie-Gide, Paris.>/
  - 3. Steudel, E.G. (1853) (1855?). <Synopsis plantarum glumacearum. J.B. Meltzer: Stuttgart>/
  - 4. Bentham & Hooker (1862) <Genera Plantarum>/
  - 5. Hackel (1887). <Gramineae, in A.Engler & K.Prantl (eds), Die natürlichen Pflanzenfamilien, 2(2): 1–97. Engelmann, Leipzig.>/
  - 6. Linnaeus, C. (1853). <Species Plantarum>/
  - 7. Doell <Flora Brasiliensis>/
  - 8. Palisot de Beauvois A.M.F.J. (1812). <Essai d'une nouvelle agrostographie ou nouveaux genres de Graminées. de Fain, Paris.>/
  - 9. Nees von Esenbeck <Agrostologia Brasiliensis>/
- #9. **TYPE** from <country or region of type specimen of basionym:>/
- #10. **Basionym or Replaced Name**:/
- #11. T:<Type of Basionym>: *fide* TROPICOS and Kew Synonymy Database:/
- #12. Type: <Herbaria A-C>/
  - 1. A/
  - 2. AD/
  - 3. AK/
  - 4. AAH/
  - 5. AAU/
  - 6. B/
  - 7. BA/
  - 8. BAA/
  - 9. BAB/
  - 10. BAF/
  - 11. BC/
  - 12. BKF/

13. BLA/
14. BM/
15. BO/
16. BOL/
17. BR/
18. BRI/
19. BY/
20. C/
21. CAL/
22. CAN/
23. CANB/
24. CANT/
25. CAS/
26. CEPEC/
27. CGE/
28. CHARL/
29. CHR/
30. COAH/
31. COL/
32. CONC/
33. CORD/
34. CTES/

#13. <Type Herbaria D-L>/

1. DNA/
2. E/
3. EA/
4. F/
5. FI/
6. FT/
7. FR/
8. G/
9. GB/
10. GH/
11. GOET/
12. GXFI/
13. HAC/
14. HBG/
15. HITBC/
16. HO/
17. HUJ/
18. IAN/
19. IBGE/
20. IBK/
21. IBSC/
22. IBUG/
23. ICN/
24. INPA/
25. ISC/
26. JSBI/
27. K/
28. KYO/
29. L/
30. LAE/
31. LD/
32. LE/
33. LINN/
34. LISC/
35. LISI/
36. LISU/
37. LP/

38. LPB/

39. LSU/

#14. <Type Herbaria M-P>/

1. M/

2. MA/

3. MAF/

4. MEL/

5. MEXU/

6. MG/

7. MICH/

8. MO/

9. MVFA/

10. MVM/

11. NAP/

12. NCU/

13. NFU/

14. NSW/

15. NT/

16. NY/

17. OXF/

18. P/

19. PDA/

20. PE/

21. PEL/

22. PERTH/

23. PH/

24. PNH/

25. PR/

26. PRC/

27. PRE/

#15. <Type Herbaria R-Z>/

1. R/

2. RB/

3. S/

4. SCAC/

5. SCBI/

6. SCFI/

7. SFS/

8. SGO/

9. SI/

10. SIFS/

11. SING/

12. SOM/

13. SP/

14. SPF/

15. SRGH/

16. SWFC/

17. TAES/

18. TAK/

19. TEX/

20. TI/

21. TK/

22. TNS/

23. TO/

24. TUB/

25. U/

26. UC/

27. UPS/

28. US/

29. UT/

- 30. UTC/
- 31. VEN/
- 32. VLA/
- 33. W/
- 34. WELT/
- 35. WIND/
- 36. WIS/
- 37. WU/
- 38. YNFC/
- 39. YUNN/
- 40. Z/
- 41. ZJFI/

#16. **Recent Synonyms:** <synonym 1>/

#17. <Synonym 2>/

#18. <Synonym 3>/

#19. <Synonym 4>/

#20. <Synonym 5>/

#21. <Synonym 6>/

#22. <Synonym 7>/

#23. <Synonym 8>/

#24. <Synonym 9>/

#25. <Synonym 10>/

#26. <Kew name>/

#27. **Illustrations (Books):/**

1. C.E.Hubbard, *Grasses* (1968)/
2. G.Hegi, *Flora von Mitteleuropa* 1 (1909)/
3. N.N.Tsvelev, *Grasses of the Soviet Union* (1983)/
4. H.Jacques-Felix, *Les Graminees d'Afrique tropicale* (1962)/
5. F.N.Hepper, *F.W.T.A.* 3(2) (1972)/
6. R.M.Pollhill, F.T.E.A., *Gramineae* <1, 2, or 3>/
7. *Flora Zambesiaca* 10 <pt 1.2.3 or 4>/
8. L.K.A. Chippindall, *Grasses and Pastures of South Africa* (1955)/
9. M.A.N.Muller, *Grasses of South West Africa/Namibia* (1984)/
10. G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990)/
11. J.Bosser, *Graminees des Paturage et des Cultures a Madagascar* (1969)/
12. N.Feinbrun-Dothan, *Flora Palaestina* 4 (1986)/
13. S.Phillips, *Poaceae* (Gramineae) in I.Hedberg & S.Edwards, *Flora of Ethiopia and Eritrea* (1995)/
14. L.Boulos, *Flora of Egypt* 4 (2005)/
15. T.A.Cope, in M.Thulin, *Poaceae* (Gramineae). *Flora of Somalia* (1995)/
16. N.L.Bor, *Gramineae* in K.H.Rechinger, *Flora Iranica*. No. 70/30 (1970)/
17. N.L.Bor, *Gramineae* in *Flora of Iraq* (1968)/
18. T.Koyama, *Grasses of Japan and its neighbouring regions* (1987)/
19. C-C Hsu, *Flora of Taiwan*, Vol 5 (1978)/
20. C-C Hsu, *Taiwan Grasses* (1975)/
21. N.L.Bor, *The grasses of Burma, Ceylon, India and Pakistan* (1960)/
22. K.M.Matthew, *Flora Palni Hills* (1996)/
23. K.M.Matthew, *Flora Palni Hills Supplement* (1998)/
24. K.M.Matthew, *Illustrations on the Flora of Tamilnadu Carnatic* (1982)/
25. K.M.Matthew, *Further Illustrations on the Flora of Tamilnadu Carnatic* (1988)/
26. T.A.Cope, *Flora of Pakistan* 143: *Poaceae* (1982)/
27. H.J.Noltie, *The Grasses of Bhutan* (2000)/
28. H.B.Gilliland, *Grasses of Malaya* (1971)/
29. H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005)/
30. E.E.Henty, *A Manual of the Grasses of New Guinea* (1969)/
31. J.P.Jessop, *Grasses of South Australia* (2006)/
32. C.A.Gardner, *Flora of Western Australia*, Vol 1, Part 1, *Gramineae* (1952)/
33. J.R.Wheeler et al, *Flora of the Kimberley Region* (1992)/
34. N.Walsh & T.Entwistle, *Flora of Victoria* Vol 2 (1994)/
35. S.W.L.Jacobs, R.D.B.Whalley & D.J.B.Wheeler., *Grasses of New South Wales*, 4th edn (2008)/
36. J.C.Tothill, & J.B.Hacker. *The grasses of southern Queensland* (1983)/

37. T.D.Stanley & E.Ross, *Flora of South East Queensland, Gramineae* (1989)/
38. K.O.Mallett (ed.), *Flora of Australia*, Vol 44B. *Poaceae* (2004)/
39. A.Wilson (ed.), *Flora of Australia*, Vol 44A. *Poaceae* (2009)/
40. D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002)/
41. E.Edgar. & H.E.Connor, *Flora of New Zealand 5, Gramineae* (2000)/
42. W.L.Wagner et al., *Manual of the Flowering Plants of Hawai'i*, Vol. 2 (1990)/
43. K.F.Best, et al, *Prairie Grasses* (1971)/
44. M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, part 1 (2007)/
45. M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 25 *Poaceae*, part 2 (2003)/
46. F.W.Gould, *The Grasses of Texas* (1975)/
47. R.McVaugh, *Flora Nova-Galiciana* Vol.14 *Gramineae* (1983)/
48. A.S.Hitchcock, *Manual of the Grasses of the West Indies* (1936)/
49. S.A.Renvoize, *Gramineas de Bolivia* (1998)/
50. S.A.Renvoize, *The Grasses of Bahia*, 1984/
51. J.A.Steyermark et al, *Flora of the Venezuelan Guayana* Vol. 8 (2004)/
52. E.G.Nicora, *Los Generos de Gramineas de America Austral* (1987)/
53. L.B. Smith, D.C. Wasshausen, R.M. Klein *Flora Illustrada Catarinensis Gramineas* (1981–1982)/
54. A.Burkat, *Flora Ilustrada de Entre Rios (Argentina)*, Pt II, *Gramineas* (1969)/
55. W.Burger, *Flora Costaricensis* 15, *Gramineae: Fieldiana Botany New Series* 4 (1980)/
56. A.L.Cabrera, *Flora de la Provincia de Buenos Aires, IV Pt 2 Gramineas* (1970)/
57. M.N.Correra, *Flora Patagonica Parte III, Gramineae* (1978)/
58. F.O.Zuloaga et al, *Flora del Paraguay* 23 (1994)/
59. B.Rosengurtt, *Gramineas Uruguayas I* (1970)/
60. G.Harling et al, *Flora of Ecuador Gramineae I*
61. E.J.Judziewicz et al, *American Bamboos* (1999)/
62. E.Judziewicz, *Flora of the Guianas*, 187. *Poaceae* (1990)/
63. J.Th.Henrard, *Monograph of the genus Digitaria* (1950)/
64. D.Farrelly, *The Book of Bamboo* (1984)/
65. S.Dransfield, & E.A. Widjaja, *Plant Resources of South-East Asia No. 7, Bamboos* (1995)/
66. R.Pilger, *Die Natürlichen Pflanzenfamilien* 14e (1940)/
67. R.Pilger, *Die Natürlichen Pflanzenfamilien* 14d (1956)/
68. S-L Chen et al, *Flora of China*, Illustrations, *Poaceae* (2007)/
69. H.M. Longhi-Wagner, *Flora Ilustrada do Rio Grande do Sul, Gramineae, Poaeae* (1987)/
70. E.Hafliger & E.Schultz, *Grass Weeds*, CIBA-GEIGY/
71. T.R.Soderstrom, K.W.Hilu, C.S.Campbell & M.E.Barkworth/
72. S.W.L.Jacobs & J.Everett (2000)/

#28. **Illustrations (Journals):/**

1. *Hooker's Icones Plantarum* <Hubbard, Stapf, Bentham>/
2. *Darwiniana*/
3. *Contrib. of the Bolus Herbarium* No. 12 (1990) <Pentastichis>/
4. *Smithsonian Contributions to Botany*/
5. *Austrobaileya*/
6. *Univ. Queensland Dept. Biol. Pap.*/
7. *South African J. Bot.*/
8. *Systematic Botany*/
9. *Kew Bulletin*/
10. *Sidal*/
11. *Blumea*/
12. *Novon*/
13. *Austr. J. Bot.*/
14. *Austr. Syst. Bot.*/
15. *Flora of Australia Oceanic Islands*/
16. *Ann. Missouri Bot. Gard.*/
17. *J. Bot. Institute Texas*/
18. *Contrib. U.S.Nat. Herbarium*/
19. *Baileya*/
20. *J. Bot. Res. Inst. Texas*/
21. *Ruizia*/
22. *Revista Brasil. Bot.*/
23. *Brittonia*/

- 24. *Itheringia*/
- 25. *Taxon*/
- 26. *Bothalia*/
- 27. *Engler's Bot. Jahrb.* /
- 28. *Reinwardtia*/
- 29. *Bull. Res. Counc. Israel* /
- 30. *Amer. J. Bot.* /

#29. **Images:**/

- 1. Photo <BKS>/
- 2. D.Sharp & B.K.Simon, *AusGrass*. Grasses of Australia. CD-Rom Version 1.0. (2002);/
- 3. M.E.Barkworth et al, *Flora of North America north of Mexico* Vol 24 *Poaceae*, online;/
- 4. Plant Image Collection Smithsonian Institution;/
- 5. K.O.Mallett (ed.). *Flora of Australia*, Vol 44 A (2002) & Vol 44B (2004). *Poaceae*;/
- 6. E.Edgar & H.E.Connor, *Flora of New Zealand* 5, *Gramineae* (2000);/
- 7. G.E.Gibbs Russell et al, *Grasses of Southern Africa* (1990);/
- 8. E.J.Judziewicz, E.J., *American Bamboos* (1999);/
- 9. L.Boulos, *Flora of Egypt* 4 (2005);/
- 10. H.Duistermaat, *Field Guide to the Grasses of Singapore* (2005);/
- 11. H.B.Gilliland et al., *Flora of Malaya* Vol. 3 *Grasses* (1971);/
- 12. R.Darke, *Ornamental Grasses* (2004);/
- 13. R.Darke, *The Encyclopaedia of Grasses for Liveable Landscapes* (2007);/
- 14. Journal <cite>/
- 15. F.van Oudtshoorn, *Guide to Grasses of Southern Africa* (1999)/

## #30. &lt;Generic coding Clayton &amp; Renvoize 1986:&gt;/

- 1. Clayton & Renvoize 1986: No./
- 2. Clayton & Renvoize 1986: Syn./
- 3. <Ref.>/
- 4. Clayton GrassBase and/or Synon 2008/
- 5. no K recognition/
- 6. Kew rec/
- 7. Synon. as syn/

#31. <Name> **derivation** (Clifford & Bostock 2007): <species>/

## #32. &lt;Type species:&gt;/

## #33. &lt;Watson &amp; Dallwitz 1992&gt;/

- 1. /

## #34. Including &lt;synonyms: 'genera' included in the current description, including superfluous names&gt;/

## #35. Sometimes referred to &lt;sensu lato genus in which this taxon is sometimes (not unreasonably) included&gt;/

#36. <Name> **derivation**: <genus>/

## #37. &lt;Generic Synonymy&gt; Syn:/

#38. <Number of species: Watson & Dallwitz>/  
species (Watson & Dallwitz)/

## #39. &lt;World distribution: this 'character' is intended only for convenience in key-making - for more precise distributions, see 'geographical distribution'&gt;/

- 1. Western Eurasia <includes Iran, Iraq, Turkey>/
- 2. Mediterranean/
- 3. Eastern Asia <Japan, China to India>/
- 4. Africa <and Saudi Arabia>/
- 5. Pacific <Malaysia, Indonesia, Australasia, Pacific Islands>/
- 6. North America <Canada, Alaska, U.S.A., Mexico>/
- 7. South and Central America, West Indies/
- 8. Arctic/

## #40. Morphological or taxonomic references: &lt;W&amp;D but with additions&gt;/

## #41. Accepted name &lt;if different, Synon and CNWG&gt;/

- 1. Synon/
- 2. CNWG/

#42. <Number of species: this database>/  
species/

## #43. From &lt;geographic distribution: W&amp;D&gt;/

## #44. &lt;Plant duration&gt;/

- 1. annual/

2. perennial/  
 #45. <Degree of perennation>/  
 1. persisting <implicit>/  
 2. short-lived <perennating organs weakly expressed and difficult to observe>/  
 #46. <Key couplet for bamboos>/  
 1. herbaceous, or if woody then not a bamboo <implicit>/  
 2. woody bamboo/  
 #47. <Plant density>/  
 1. culms solitary/  
 2. cushion forming/  
 3. mat forming/  
 4. <uni> caespitose <forming a single clump>/  
 5. pluricaespitose <separate clumps linked by rhizomes>/  
 #48. <Plant> clumped <degree of culm density>/  
 1. loosely/  
 2. moderately/  
 3. densely/  
 #49. Roots <unusual states>/  
 1. simple <implicit>/  
 2. bearing tubers/  
 3. aromatic/  
 4. woolly/  
 #50. Rootstock <presence>/  
 1. not evident/  
 2. evident <knotty and woody>/  
 #51. Cataphylls <presence>/  
 1. inconspicuous/  
 2. evident/  
 #52. Rhizomes <presence>/  
 1. absent <implicit>/  
 2. short <often obliquely ascending>/  
 3. elongated <running>/  
 #53. Rhizomes <lepto- or pachymorph>/  
 1. leptomorph <uniformly slender>/  
 2. pachymorph <substantially thicker than culm at some point>/  
 #54. Rhizomes <consistency>/  
 1. hollow/  
 2. with peripheral air canals/  
 3. spongy/  
 4. fleshy/  
 5. firm/  
 6. wiry/  
 7. tuberous/  
 8. knotty/  
 9. woody/  
 #55. Rhizomes <presence of scales>/  
 1. not obviously scaly/  
 2. scaly/  
 #56. Rhizomes <indumentum>/  
 1. glabrous/  
 2. hairy <with straight hairs>/  
 3. woolly <with crimped hairs>/  
 #57. Stolons <presence>/  
 1. absent <implicit>/  
 2. present/  
 #58. Stolons <equality of internodes>/  
 1. with subequal internodes <leafy runners>/  
 2. with alternating elongated and bunched internodes/  
 #59. Butt sheaths <base of basal leaf-sheaths; presence>/  
 1. present <implicit>/

- 2. absent <basal sheaths evanescent or scale-like>/
- #60. Butt sheaths <consistency>/
  - 1. papery/
  - 2. herbaceous/
  - 3. scarious/
  - 4. coriaceous/
  - 5. indurate/
  - 6. fleshy/
  - 7. spongy/
- #61. Butt sheaths <presence of bulb>/
  - 1. not bulbous <implicit>/
  - 2. thickened and forming a bulb/
- #62. Butt sheaths <colour>/
  - 1. pallid/
  - 2. yellow/
  - 3. green/
  - 4. glaucous/
  - 5. grey/
  - 6. light brown/
  - 7. dark brown/
  - 8. red/
  - 9. purple/
- #63. Butt sheaths <sheen>/
  - 1. dull/
  - 2. glossy/
- #64. Butt sheaths <ribbing & reticulation>/
  - 1. without ribs/
  - 2. distinctly ribbed/
  - 3. reticulately veined/
- #65. Butt sheaths <indumentum> <ordered>/
  - 1. glabrous/
  - 2. sparsely hairy/
  - 3. pubescent/
  - 4. pilose/
  - 5. hirsute/
  - 6. villous/
  - 7. woolly/
- #66. Butt sheaths with <hair colour>/
  - 1. white hairs <implicit>/
  - 2. grey hairs/
  - 3. yellow hairs/
  - 4. tawny hairs/
  - 5. dark brown hairs/
  - 6. red hairs/
  - 7. purple hairs/
- #67. Butt sheaths <persistence>/
  - 1. withering <when dead> <implicit>/
  - 2. persistent and investing base of culm/
- #68. Butt sheaths with <kind of dead sheath investing culm>/
  - 1. soft dead sheaths/
  - 2. compacted dead sheaths <not much altered>/
  - 3. curly dead sheaths <like wood shavings>/
  - 4. dead sheaths fracturing into segments/
  - 5. fibrous dead sheaths/
  - 6. reticulate dead sheaths/
- #69. Basal innovations <origin>/
  - 1. extravaginal/
  - 2. intravaginal/
- #70. Basal innovations <compression>/
  - 1. subterete <implicit>/

2. flabellate <strongly compressed and interleaved like a fan>/
- #71. Glands <type of dwarf gland - wherever sited, but comment if ambiguous>/
1. absent/
  2. capitate/
  3. wart-like <convex>/
  4. raised crateriform/
  5. sunken crateriform/
  6. elongated/
  7. annular/
  8. lacunose/
- #72. Culms <habit>/
1. erect/
  2. geniculately ascending/
  3. decumbent <touching ground at knees>/
  4. prostrate <lying on ground>/
  5. rambling <on low vegetation>/
  6. at first whip-like then subsiding on other vegetation/
  7. arching/
  8. leaning <on other vegetation>/
  9. scandent <climbing or scrambling>/
- #73. Culms <stature>/
1. reed-like/
  2. robust/
  3. of moderate stature/
  4. slender/
  5. weak/
- #74. Culms <straightness>/
1. straight/
  2. curved/
  3. tortuous/
  4. zigzag/
- #75. Culms <inclination of tip - if a bamboo>/
1. erect at the tip/
  2. inclined at the tip/
  3. nodding at the tip/
  4. drooping at the tip/
  5. pendulous at the tip/
- #76. Culms <height>/
- cm long/
- #77. Culms <diameter of lower internodes>/
- mm diam./
- #78. Culms <consistency>/
1. spongy/
  2. compressible/
  3. firm <implicit>/
  4. wiry/
  5. woody/
- #79. Culms <number of nodes>/
- noded/
- #80. Culms with <site of uppermost node as fraction of total culm length>/
- of their length below uppermost node/
- #81. Culms <nodal roots>/
1. without nodal roots/
  2. with prop roots/
  3. rooting from lower nodes/
  4. with root dots on the nodes/
  5. with aerial roots from the nodes <mainly bamboos>/
  6. with root thorns from the nodes/
  7. eventually collapsing and rooting from upper nodes/
- #82. Culms <fragility>/

1. tough <implicit>/
  2. disarticulating at the nodes <associated with axillary spikelets>/
- #83. Culms <presence of corms>/
1. not swollen at the base <implicit>/
  2. swollen at the base/
- #84. Culms forming <corm shape>/
1. an ovoid corm/
  2. moniliform corms/
  3. an elongated corm/
- #85. Culm-internodes <inequality of length - excluding peduncle>/
1. similar in length/
  2. abbreviated and bulging at the base <bamboos>/
  3. abbreviated and closely packed at the base/
  4. shorter and closely spaced at top of culm/
  5. unequal, the upper longer/
  6. unequal, the lower longer/
  7. alternately elongated and bunched/
- #86. Culm-internodes <transverse section>/
1. terete/
  2. semiterete <flattened along one face>/
  3. channelled <along one face>/
  4. elliptical in section/
  5. quadrangular/
- #87. Culm-internodes <hollowness>/
1. thin-walled/
  2. thick-walled/
  3. solid/
  4. with septate pith/
- #88. Culm-internodes <length>/
- cm long/
- #89. Culm-internodes <colour>/
1. white/
  2. yellow/
  3. light green/
  4. mid-green/
  5. dark green/
  6. glaucous/
  7. grey/
  8. brown/
  9. purple/
  10. black/
- #90. Culm-internodes <variegation>/
1. concolorous/
  2. striped/
  3. mottled/
- #91. Culm-internodes <presence of sessile glands>/
1. eglandular/
  2. glandular/
- #92. Culm-internodes <surface relief>/
1. estriate/
  2. striate/
  3. ridged/
- #93. Culm-internodes <roughness>/
1. smooth/
  2. scaberulous/
  3. antrorsely scabrous/
  4. retrorsely scabrous/
  5. papillose/
- #94. Culm-internodes distally <indumentum, at least below nodes> <ordered>/
1. mealy/

- 2. pruinose/
- 3. glabrous/
- 4. pubescent/
- 5. pilose/
- 6. hirsute/
- 7. hispid/
- 8. woolly/
- 9. with <longitudinal> pubescent line/
- #95. Culm-internodes with <hair type>/
  - 1. simple hairs <implicit>/
  - 2. tubercle-based hairs/
  - 3. reflexed hairs/
  - 4. capitate hairs/
  - 5. clavellate hairs/
  - 6. turgid hairs/
- #96. Culm-nodes <constriction>/
  - 1. constricted/
  - 2. flush with internodes/
  - 3. swollen/
  - 4. flanged/
- #97. Culm-nodes <presence of supra-nodal ridge>/
  - 1. without obvious supra-nodal ridge/
  - 2. with distinct supra-nodal ridge/
- #98. Culm-nodes <colour>/
  - 1. pallid/
  - 2. green/
  - 3. brown/
  - 4. purple/
  - 5. black/
- #99. Culm-nodes <exudate>/
  - 1. without exudate/
  - 2. viscid/
- #100. Culm-nodes <indumentum - comment on colour>/
  - 1. glabrous/
  - 2. pubescent/
  - 3. bearded/
- #101. Lateral branches <extent of aerial branching>/
  - 1. lacking <above basal tillers>/
  - 2. sparse/
  - 3. ample/
  - 4. fastigiate/
  - 5. suffrutescent/
  - 6. dendroid <bamboos>/
- #102. Lateral <aerial> branches <intra- or extravaginal>/
  - 1. extravaginal/
  - 2. intravaginal/
  - 3. infravaginal/
- #103. Lateral branches arising from <where>/
  - 1. lower culm/
  - 2. mid culm/
  - 3. upper culm/
- #104. Lateral branches <inclination> <ordered>/
  - 1. erect <0–15 degrees>/
  - 2. ascending <16–60 degrees>/
  - 3. spreading <61–90 degrees>/
  - 4. reflexed/
- #105. Buds or branches <presence on lower culm>/
  - 1. present on lower part of culm/
  - 2. absent from lower part of culm/
- #106. Bud complement <number>/

- /
- #107. Bud prophyll <length of principal prophyll>/  
mm long/
- #108. Bud prophyll <number of keels>/  
1. 1-keeled/  
2. 2-keeled/
- #109. Bud prophyll margins <fusion>/  
1. free/  
2. fused/
- #110. Branch complement <constancy>/  
1. constant/  
2. variable/
- #111. Branch complement <number> <ordered>/  
1. one/  
2. two/  
3. three/  
4. several <4-10>/  
5. many/
- #112. Branch complement <arrangement>/  
1. solitary/  
2. in a horizontal line <at the same level>/  
3. in an irregular line/  
4. in a clump/  
5. girdling the culm/  
6. flabellate <around a triangular space>/
- #113. Branch complement <origin>/  
1. apparently arising below the node/  
2. at the node <implicit>/  
3. subtended by a bare patch above the node/
- #114. Branch complement with <equality>/  
1. subequal branches/  
2. 1 branch dominant/  
3. 2 branches dominant/  
4. 3 branches dominant/  
5. interspersed leafless fibrillar branches/
- #115. Branch complement <thickness relative to stem>/  
1. as thick as stem <at least the dominants>/  
2. thinner than stem/
- #116. Culm-sheaths <presence; they occur below foliage, mainly in bamboos>/  
1. absent <implicit>/  
2. present/
- #117. Culm-sheaths <persistence>/  
1. persistent/  
2. tardily deciduous <often hanging from the culm>/  
3. deciduous but leaving a persistent girdle/  
4. deciduous/
- #118. Culm-sheaths <length>/  
cm long/
- #119. Culm-sheaths <length as a fraction of internode>/  
length of internode/
- #120. Culm-sheaths <length-width ratio>/  
times as long as wide/
- #121. Culm-sheaths <presence of basal lobes>/  
1. without basal lobes <implicit>/  
2. with basal lobes/
- #122. Culm-sheaths <consistency>/  
1. chartaceous/  
2. coriaceous/
- #123. Culm-sheaths <colour when fresh>/  
1. white/

- 2. yellow/
- 3. green/
- 4. glaucous/
- 5. brown/
- 6. red/
- 7. purple/
- #124. Culm-sheaths <variegation>/
  - 1. concolorous/
  - 2. striped/
  - 3. obscurely mottled with last colour/
  - 4. distinctly mottled with last colour/
- #125. Culm-sheaths <roughness>/
  - 1. smooth/
  - 2. antrorsely scabrous/
  - 3. retrorsely scabrous/
- #126. Culm-sheaths <surface indumentum>/
  - 1. glabrous <except for shoulders and margins>/
  - 2. puberulous/
  - 3. pubescent/
  - 4. pilose/
  - 5. hispid/
- #127. Culm-sheaths hairy <where>/
  - 1. throughout/
  - 2. above/
  - 3. below/
  - 4. at the base/
- #128. Culm-sheaths with <inclination of hairs>/
  - 1. appressed hairs/
  - 2. erect hairs/
  - 3. reflexed hairs/
- #129. Culm-sheaths with <hair colour>/
  - 1. white hairs/
  - 2. grey hairs/
  - 3. yellow hairs/
  - 4. tawny hairs/
  - 5. dark brown hairs/
  - 6. red hairs/
  - 7. purple hairs/
  - 8. black hairs/
- #130. Culm-sheaths <presence of marginal hairs>/
  - 1. glabrous on margins/
  - 2. hairy on margins/
- #131. Culm-sheaths <shape of apex>/
  - 1. concave at apex/
  - 2. truncate at apex/
  - 3. convex at apex/
  - 4. triangular at apex/
  - 5. asymmetrical at apex/
- #132. Culm-sheaths <presence of auricles>/
  - 1. without auricles/
  - 2. auriculate/
- #133. Culm-sheaths with <auricle apex>/
  - 1. obtuse auricles/
  - 2. acute auricles/
- #134. Culm-sheaths with <equality of auricles>/
  - 1. equal auricles/
  - 2. subequal auricles/
  - 3. unequal auricles/
- #135. Culm-sheaths with <auricle length>/
  - mm high auricles/

- #136. Culm-sheaths with <auricle width>/  
mm wide auricles/
- #137. Culm-sheaths <hairs on shoulders, or auricles when present>/  
1. glabrous on shoulders/  
2. pubescent on shoulders/  
3. ciliate on shoulders/  
4. setose on shoulders/
- #138. Culm-sheaths shoulders with <straight or curved hairs>/  
1. straight hairs/  
2. curved hairs/
- #139. Culm-sheaths shoulders with <hair length>/  
mm long hairs/
- #140. Culm-sheath ligule <height>/  
mm high/
- #141. Culm-sheath ligule <colour>/  
1. pallid/  
2. green/  
3. brown/  
4. reddish/  
5. purple/
- #142. Culm-sheath ligule <apical ornament>/  
1. entire/  
2. dentate/  
3. lacerate/  
4. fimbriate <lacerations bearing a group of long hairs>/  
5. ciliolate/  
6. ciliate/
- #143. Culm-sheath blade <outline>/  
1. inconspicuous/  
2. linear/  
3. lanceolate/  
4. narrowly ovate/  
5. ovate/  
6. triangular/
- #144. Culm-sheath blade <basal constriction>/  
1. constricted at base <semi-petiolate>/  
2. narrower than sheath/  
3. as wide as sheath at base <attached across its whole width> <implicit>/  
4. cordate/
- #145. Culm-sheath blade <persistence>/  
1. indistinctly demarcated from sheath/  
2. demarcated but persistent/  
3. deciduous/
- #146. Culm-sheath blade <carriage>/  
1. erect/  
2. spreading/  
3. reflexed/
- #147. Culm-sheath blade <length>/  
cm long/
- #148. Culm-sheath blade <width>/  
mm wide/
- #149. Culm-sheath blade <wrinkling>/  
1. flat/  
2. wrinkled/
- #150. Culm-sheath blade <indumentum>/  
1. glabrous on surface/  
2. scabrid/  
3. pubescent/  
4. hispid/  
5. with ciliate margins/

- #151. Culm-sheath blade <shape of apex>/
1. obtuse/
  2. acute/
  3. acuminate/
  4. attenuate/
  5. cuspidate/
  6. mucronate/
- #152. Leaves <basal or cauline>/
1. mostly basal/
  2. basal and cauline/
  3. cauline <comment if herbaceous without butt sheaths>/
- #153. Leaves <number in leaf complement - if cauline>/  
per branch <or culm when unbranched; refers to foliage culms if distinct from flowering culms. Zero if not in distinct complements>/
- #154. Leaves <phyllotaxy>/
1. apparently irregular <implicit>/
  2. distichous/
  3. spiral/
- #155. Leaves <differentiation of sheath and blade>/
1. differentiated into sheath and blade <implicit>/
  2. without demarcation between sheath and blade <no abaxial collar; ligule may be present>/
  3. with sheath almost obsolete/
  4. with blades commonly suppressed, transferring photosynthetic function to sheath and culm/
- #156. Leaves <heterophylly>/
1. all alike <implicit>/
  2. heterophyllous being wider on the culm/
  3. much reduced on the culm <when foliage basal, else see culm-sheaths>/
  4. heterophyllous with a basal winter rosette <vernal leaves described>/
  5. heterophyllous with the distal narrower and retrorsely scabrid at the apex/
  6. heterophyllous <unspecified - explain in comment>/
- #157. Leaf-sheaths <looseness>/
1. solid and functionally replacing culm/
  2. tight <on the culm>/
  3. loose/
  4. inflated <refers to ordinary leaves, not those subtending an inflorescence or cleistogenes>/
  5. deciduous/
- #158. Leaf-sheaths <presence of basal thickening; but see butt-sheath if bulbous>/
1. unthickened at base/
  2. thickened at base/
- #159. Leaf-sheaths <marginal union>/
1. open for most of their length/
  2. tubular for much of their length/
- #160. Leaf-sheaths with <fraction closed>/  
of their length closed/
- #161. Leaf-sheaths with <involute margins>/
1. flat margins/
  2. infolded margins/
- #162. Leaf-sheaths <length>/  
cm long/
- #163. Leaf-sheaths <length relative to internode>/
1. obsolete on upper internodes/
  2. mostly shorter than adjacent culm internode <upper nodes visible>/
  3. subequal to internodes <or variable>/
  4. longer than adjacent culm internode <overlapping>/
- #164. Leaf-sheaths <width relative to blade>/
1. narrower than blade at the collar/
  2. as wide as blade at the collar/
  3. wider than blade at the collar/
- #165. Leaf-sheaths <presence of sessile glands>/
1. eglandular/

2. glandular <on surface, midvein or margins>/
- #166. Leaf-sheaths <stickiness>/
1. without exudate <implicit>/
  2. pruinose/
  3. viscid/
  4. resinous/
- #167. Leaf-sheaths <presence of keel>/
1. without keel <or thickening>/
  2. medianly thickened/
  3. keeled <but not winged>/
  4. with winged keel/
- #168. Leaf-sheaths <venation>/
1. indistinctly veined/
  2. striately veined/
  3. reticulately veined/
  4. ribbed/
- #169. Leaf-sheaths <roughness>/
1. smooth/
  2. scaberulous/
  3. antrorsely scabrous/
  4. retrorsely scabrous/
  5. papillose/
  6. punctate/
  7. transversely wrinkled/
- #170. Leaf-sheaths <surface indumentum> <ordered>/
1. glabrous on surface <excepting mouth & margin>/
  2. puberulous/
  3. pubescent/
  4. pilose/
  5. hirsute/
  6. hispid/
  7. woolly/
- #171. Leaf-sheaths with <hair type>/
1. simple hairs <implicit>/
  2. tubercle-based hairs/
  3. reflexed hairs/
  4. hooked hairs/
  5. capitate hairs/
  6. clavellate hairs/
  7. turgid hairs/
- #172. Leaf-sheaths hairs <colour>/
1. white/
  2. grey/
  3. yellow/
  4. tawny/
  5. dark brown/
  6. red/
  7. purple/
  8. black/
- #173. Leaf-sheaths outer margin <presence of hairs>/
1. glabrous/
  2. hairy/
- #174. Leaf-sheaths inner surface <indumentum>/
1. glabrous/
  2. puberulous/
- #175. Leaf-sheath oral hairs <beside ligule, or on auricles> <ordered>/
1. scanty <a few bristles>/
  2. lacking/
  3. pubescent/
  4. ciliate/

- 5. bearded/
- 6. setose/
- 7. woolly/
- #176. Leaf-sheath oral hairs <terete or flat>/
  - 1. terete/
  - 2. flat/
- #177. Leaf-sheath oral hairs <carriage>/
  - 1. erect/
  - 2. spreading/
  - 3. curly/
  - 4. deciduous/
- #178. Leaf-sheath oral hairs <length>/
  - mm long/
- #179. Leaf-sheath oral hairs <colour>/
  - 1. pale/
  - 2. dark/
- #180. Leaf-sheath auricles <presence>/
  - 1. absent <implicit>/
  - 2. erect <usually adnate to ligule>/
  - 3. erect and connate forming a tooth opposite blade <when sheath tubular>/
  - 4. falcate/
- #181. Leaf-sheath auricles <length>/
  - mm long/
- #182. Leaf-sheath auricles <shape of apex>/
  - 1. obtuse/
  - 2. acute/
  - 3. acuminate/
- #183. Ligule <structure - at midculm node when cauline foliage present> <mandatory>/
  - 1. an eciliate membrane <apical hairs absent>/
  - 2. a ciliolate membrane <apical hairs shorter than membrane>/
  - 3. a ciliate membrane <apical hairs as long as, or longer than, membrane>/
  - 4. a fringe of hairs <membrane absent or obscure>/
  - 5. absent/
- #184. Ligule <length on culm leaves>/
  - mm long/
- #185. Ligule <length on basal shoots when different>/
  - mm long on basal shoots/
- #186. Ligule <consistency>/
  - 1. hyaline/
  - 2. membranous/
  - 3. scarious/
- #187. Ligule <colour>/
  - 1. translucent/
  - 2. white/
  - 3. brown/
  - 4. red/
  - 5. purple/
- #188. Ligule <abaxial indumentum>/
  - 1. glabrous on abaxial surface/
  - 2. scaberulous on abaxial surface/
  - 3. pubescent on abaxial surface/
  - 4. pilose on abaxial surface/
  - 5. ciliate from base of abaxial surface/
  - 6. setose from base of abaxial surface/
  - 7. with a secondary abaxial membrane/
- #189. Ligule <apex incision>/
  - 1. entire/
  - 2. erose/
  - 3. bilobed/
  - 4. trilobed/

- 5. lacerate/
- #190. Ligule <shape of apex>/
  - 1. truncate/
  - 2. obtuse/
  - 3. acute/
  - 4. acuminate/
- #191. Collar <abaxial surface at junction between sheath and blade - colour>/
  - 1. pallid/
  - 2. concolorous <with sheath and blade>/
  - 3. dark/
- #192. Collar <external ligule>/
  - 1. without external ligule <implicit>/
  - 2. with <membranous> external ligule/
- #193. Collar <indumentum of collar, or external ligule>/
  - 1. glabrous/
  - 2. pubescent/
  - 3. ciliate/
  - 4. pilose/
  - 5. bearded/
- #194. Collar with hairs <length>/
  - mm long/
- #195. Leaf-blade base <shape>/
  - 1. tapering to the midrib <but not discretely petiolate>/
  - 2. simple <narrowing or slightly rounded> <implicit>/
  - 3. cuneate/
  - 4. truncate/
  - 5. broadly rounded/
  - 6. cordate/
  - 7. amplexicaul/
  - 8. sagittate/
- #196. Leaf-blade base <symmetry>/
  - 1. symmetrical/
  - 2. asymmetrical/
- #197. Leaf-blade base <presence of false petiole>/
  - 1. without a false petiole <implicit>/
  - 2. with a brief petiole-like connection to sheath <mainly bamboos>/
  - 3. with a false petiole <elongated, at least in the upper leaves>/
- #198. Leaf-blade base petiole <length>/
  - cm long/
- #199. Leaf-blade base petiole <indumentum>/
  - 1. glabrous/
  - 2. pubescent/
  - 3. pilose/
- #200. Leaf-blades <carriage>/
  - 1. appressed/
  - 2. erect/
  - 3. ascending <implicit>/
  - 4. spreading/
  - 5. drooping/
  - 6. reflexed/
  - 7. floating <flat on the water>/
- #201. Leaf-blades <straightness>/
  - 1. straight <implicit>/
  - 2. curved/
  - 3. curled/
  - 4. flexuous/
  - 5. tortuous <spirally twisted>/
- #202. Leaf-blades <inversion>/
  - 1. not inverted <implicit>/
  - 2. inverted <twisted to bring lower epidermis uppermost>/

- #203. Leaf-blades <persistence>/  
 1. persistent <implicit>/  
 2. deciduous at the ligule/  
 3. deciduous with part of sheath attached/  
 #204. Leaf-blades <outline>/  
 1. acuminate/  
 2. filiform/  
 3. linear <implicit>/  
 4. lanceolate/  
 5. elliptic/  
 6. oblong/  
 7. ovate/  
 8. triangular/  
 #205. Leaf-blades <direction of taper>/  
 1. tapering towards sheath <widest in distal half>/  
 2. tapering towards tip <widest near base>/  
 3. tapering towards tip and sheath <widest in middle>/  
 4. parallel-sided <equally wide for most of length>/  
 #206. Leaf-blades <vernation>/  
 1. flat <implicit>/  
 2. plicate <pleated>/  
 3. conduplicate <folded>/  
 4. involute/  
 5. convolute/  
 6. revolute/  
 7. terete <apparently without lamina>/  
 #207. Leaf-blades <outline of transverse section>/  
 1. linear in section/  
 2. angular in section/  
 3. elliptic in section/  
 4. circular in section/  
 #208. Leaf-blades <length>/  
 cm long/  
 #209. Leaf-blades <width>/  
 mm wide/  
 #210. Leaf-blades <length of uppermost leaf>/  
 cm long at summit of culm/  
 #211. Leaf-blades <width in winter rosette>/  
 mm wide in winter rosette/  
 #212. Leaf-blades <consistency>/  
 1. membranous/  
 2. herbaceous <implicit>/  
 3. fleshy/  
 4. coriaceous/  
 5. indurate/  
 #213. Leaf-blades <stiffness>/  
 1. stiff/  
 2. firm <implicit>/  
 3. flaccid/  
 #214. Leaf-blades <colour>/  
 1. yellowish green/  
 2. light green/  
 3. mid-green/  
 4. dark green/  
 5. glaucous/  
 6. grey-green/  
 7. red/  
 8. purple/  
 #215. Leaf-blades <whether discolourous>/  
 1. concolorous/

2. discoloured with last colour beneath <different colours above and below>/
  3. with undersurface a different shade on either side of midrib/
  4. variegated <describe in comment>/
  5. withering along margins/
- #216. Leaf-blades <presence of sessile glands - other than margins>/
1. eglandular/
  2. glandular <on surface or midvein>/
- #217. Leaf-blades <exudate>/
1. without exudate <implicit>/
  2. pruinose/
  3. viscid/
  4. resinous/
- #218. Leaf-blades <presence of scent>/
1. without scent <implicit>/
  2. aromatic/
- #219. Leaf-blade midrib <distinctness on upper surface>/
1. indistinct/
  2. evident/
  3. conspicuous/
  4. widened/
- #220. Leaf-blade midrib <emergence on lower surface>/
1. scarcely raised beneath/
  2. prominent beneath <but not keeled>/
  3. keeled beneath/
- #221. Leaf-blade venation <clarity>/
1. indistinct <except for midrib>/
  2. distinct/
  3. prominent/
- #222. Leaf-blade venation <slanting>/
1. parallel <implicit>/
  2. slanting obliquely from midrib/
- #223. Leaf-blade venation comprising <number of vascular bundles>/  
vascular bundles/
- #224. Leaf-blade venation of <number of orders>/  
orders <counting midrib as first>/
- #225. Leaf-blade venation with <number of second order veins>/  
secondary veins/
- #226. Leaf-blade venation with <number of inner ridges>/  
inner ridges/
- #227. Leaf-blade venation with sclerenchyma strands <presence above or below veins>/
1. absent/
  2. below veins/
  3. above some veins/
  4. above all veins/
- #228. Leaf-blade venation with <number of sclerenchyma strands - mainly Festuca>/  
subepidermal sclerenchyma strands/
- #229. Leaf-blade venation with <separate> subepidermal sclerenchyma strands <equality of size>/
1. similar in size/
  2. unequal in size <apart from midrib and margins>/
  3. enlarged at midrib/
  4. enlarged at leaf margins/
- #230. Leaf-blade venation with subepidermal sclerenchyma <attachment to veins>/
1. free from veins/
  2. attached to veins above/
  3. attached to veins below/
  4. attached to veins above and below/
- #231. Leaf-blade venation <presence of abaxial subepidermal sclerenchyma layer>/
1. without layer of subepidermal sclerenchyma masking vein striation/
  2. with sclerenchyma strands widened to form a discontinuous subepidermal layer/
  3. with unevenly thickened subepidermal sclerenchyma layer on the underside/

4. with continuous uniform subepidermal sclerenchyma layer on the underside/  
 #232. Leaf-blade venation <presence of cross veins>/  
 1. without <apparent> cross veins <implicit>/  
 2. with obscure cross veins <requiring careful inspection>/  
 3. with distinct cross veins <obvious under x10 lens>/  
 #233. Leaf-blade surface <presence of grooves or ribs>/  
 1. ungrooved/  
 2. grooved along midline/  
 3. grooved on either side of midline/  
 4. ribbed/  
 #234. Leaf-blade surface grooved <which side grooved or ribbed>/  
 1. adaxially <upper>/  
 2. abaxially <lower>/  
 #235. Leaf-blade surface with <shape of ribs>/  
 1. rounded ribs/  
 2. rectangular ribs/  
 3. ribs raised into sinuous lamellae/  
 #236. Leaf-blade surface <roughness>/  
 1. smooth/  
 2. scaberulous/  
 3. scabrous/  
 4. papillose/  
 #237. Leaf-blade surface rough <which side>/  
 1. adaxially <upper>/  
 2. abaxially <lower>/  
 3. on both sides/  
 #238. Leaf-blade surface <indumentum> <ordered>/  
 1. glabrous/  
 2. puberulous/  
 3. pubescent/  
 4. pilose/  
 5. hirsute/  
 6. hispid/  
 7. woolly/  
 #239. Leaf-blade surface hairless <extent when glabrous>/  
 1. throughout/  
 2. except near base/  
 #240. Leaf-blade surface <hair density>/  
 1. sparsely hairy/  
 2. moderately hairy <implicit>/  
 3. densely hairy/  
 #241. Leaf-blade surface hairy <which side>/  
 1. adaxially <upper>/  
 2. abaxially <lower>/  
 3. on both sides/  
 #242. Leaf-blade surface with <hair type>/  
 1. simple hairs <implicit>/  
 2. tubercle-based hairs/  
 3. capitate hairs/  
 4. clavellate hairs/  
 5. turgid hairs/  
 #243. Leaf-blade margins <thickening>/  
 1. unthickened/  
 2. cartilaginous/  
 #244. Leaf-blade margins <presence of glands>/  
 1. eglandular/  
 2. glandular/  
 #245. Leaf-blade margins <indentation>/  
 1. entire <implicit>/  
 2. undulate/

- 3. crenate <crinkled, at least on one margin>/
- 4. serrulate/
- #246. Leaf-blade margins <roughness> <ordered>/
  - 1. smooth/
  - 2. scaberulous/
  - 3. scabrous/
  - 4. spinulose/
- #247. Leaf-blade margins <hairiness>/
  - 1. glabrous/
  - 2. pubescent/
  - 3. ciliate/
  - 4. tuberculate-ciliate/
  - 5. with tufts of hair/
  - 6. tuberculate <without hair>/
- #248. Leaf-blade margins hairy <where>/
  - 1. all along <implicit>/
  - 2. at base <only>/
- #249. Leaf-blade apex <shape> <ordered>/
  - 1. obtuse/
  - 2. abruptly acute/
  - 3. acute/
  - 4. acuminate/
  - 5. attenuate/
  - 6. caudate/
- #250. Leaf-blade apex <pungency>/
  - 1. muticous <implicit>/
  - 2. pungent <pricking the fingers>/
- #251. Leaf-blade apex <termination>/
  - 1. soon splitting/
  - 2. hooded/
  - 3. asymmetrical/
  - 4. simple <implicit>/
  - 5. apiculate/
  - 6. hardened/
  - 7. callose/
  - 8. filiform/
- #252. Leaf-blade apex <vesture>/
  - 1. without special vesture <undifferentiated from lamina> <implicit>/
  - 2. smooth/
  - 3. antrorsely scabrous/
  - 4. retrorsely scabrous/
  - 5. hairy/
- #253. Flowering specimens <whether flowering parts are described in the database>/
  - 1. described /
  - 2. unknown <all bamboos>/
- #254. <Plant sexuality>/
  - 1. bisexual <implicit>/
  - 2. gynodioecious ("male", in this context, indicating the bisexual state) <describe female, and comment on bisexual state in male section>/
  - 3. monoecious/
  - 4. androdioecious/
  - 5. dioecious <comment if known to be dichogamous rather than dioecious>/
- #255. <Plant sexuality if monoecious>/
  - 1. with male and female spikelets in the same inflorescence/
  - 2. with male and female spikelets in different inflorescences <implicit>/
  - 3. with male terminal and mixed axillary inflorescences/
  - 4. with a male and a female inflorescence subtended by the same spatheole <Coix>/
  - 5. with sex changing according to season/
- #256. Synflorescence <type of inflorescence aggregation> <mandatory>/
  - 1. simple <discrete and lacking subtending bracts, or rarely with rudiments> <implicit>/

2. compound <a spathe aggregation of racemose inflorescences, the latter terminating branches>/
  3. bractiferous <a bracteate or spathe system bearing single spikelets or dwarf bracteolate fascicles in the axils - bamboos only>/
- #257. Synflorescence <shape when compound or bractiferous>/
1. scanty/
  2. linear/
  3. paniculate/
  4. fastigate <about the axis>/
  5. fasciculate <the spatheoles in bunches>/
  6. globose/
  7. stellate/
  8. clustered at the nodes <bamboos>/
- #258. Synflorescence in <shape of clusters - if nodal>/
1. globose clusters/
  2. stellate clusters/
  3. oblong clusters/
  4. compact unilateral clumps/
  5. untidy tufts/
- #259. Synflorescence <length of synflorescence or nodal cluster - if compound or bractiferous>/  
cm long/
- #260. Synflorescence <density of synflorescence or nodal cluster - if compound or bractiferous>/
1. dense/
  2. lax/
  3. open/
- #261. Synflorescence <separation of clusters - if nodal>/  
cm between clusters/
- #262. Synflorescence <internode indumentum - if nodal>/
1. glabrous on internodes/
  2. scabrid on internodes/
  3. hispidulous on internodes/
  4. pubescent on internodes/
  5. pilose on internodes/
- #263. Synflorescence with <shape of principal subtending bracts - if bractiferous>/
1. glumaceous subtending bracts/
  2. spatheaceous subtending bracts/
  3. foliaceous subtending bracts/
- #264. Synflorescence bracts <length - if bractiferous>/  
mm long/
- #265. Synflorescence <presence of spikelet buds - if bractiferous>/
1. without axillary buds at base of spikelet <semelauctant>/
  2. with axillary buds at base of spikelet <iterauctant>/
- #266. Synflorescence <presence of dwarf shoots - if compound or bractiferous>/
1. with simple <homogeneous> branching/
  2. with ultimate <large> bract subtending a compact bracteolate fascicle of spikelets <mostly bamboos>/
  3. with principal spatheoles embracing a compact fascicle of racemes, each subtended by a subsidiary bract/
  4. with multiple branching from a dwarf shoot in penultimate spathe <Andropogoneae>/
- #267. Synflorescence <presence of prophylls - if compound or bractiferous>/
1. without prophylls <adjoining spikelet> <implicit>/
  2. prophyllate below lateral spikelets/
- #268. Synflorescence with <number of prophyll keels>/
1. unkeeled prophylls/
  2. 1-keeled prophylls/
  3. 2-keeled prophylls/
- #269. Synflorescence <relation to leaves - if nodal>/
1. leafy between clusters/
  2. leafless between clusters <pseudo-racemose>/
  3. leafless between <clusters and> branches <pseudo-paniculate>/
- #270. Synflorescence <total length - if nodal>/  
cm long overall/

- #271. Synflorescence <on leafless culm>/
1. on the same culm as leaves <implicit>/
  2. on a specialized culm bearing a single <rarely more> leaf-blade/
  3. on a separate leafless culm/
- #272. Inflorescence <type - refers to true inflorescence (i.e., above uppermost sheath) in a compound system; inapplicable if bractiferous> <mandatory>/
1. a panicle <including spiciform panicles with dwarf laterals more or less accrescent to a central axis, and Pennisetum spp with 1 involucre bristle>/
  2. a panicle with branches tipped by a raceme <or heteromorphic triad; Andropogoneae. Enter under panicle; raceme shape, length & number of spikelets; rhachis; rhachis internode>/
  3. composed of <spikes or> racemes <these occasionally bearing secondary lateral racemelets (rarely variable between panicle and raceme, and then scored for both). Triads or contiguous pairs shed as a whole from a tough central axis are racemes; the term is also used here for a broadly winged rhachis bearing involucre clusters (Chlorocalymma, Trachys). Single spikelets subtended by 1 sterile bristle and deciduous with it are homology problems; they are treated as reduced racemes (except Pennisetum). Single spikelets without rhachis extension are treated as spikelets, regardless of supposed homology (Boutelouinae, Zoysiinae, Stenotaphrum)>/
  4. comprising only a few spikelets <and type undefinable>/
- #273. Inflorescence comprising <number of spikelets if few>/  
fertile spikelets/
- #274. Inflorescence <location of fertile inflorescence>/
1. terminal <on culms and principal branches> <implicit>/
  2. terminal and axillary <excluding cleistogenes; including compound systems>/
  3. axillary <only>/
- #275. Inflorescence <whether overtopping basal leaves>/
1. aerial <implicit>/
  2. shorter than basal leaves/
- #276. Inflorescence bearing <juvenility>/
1. well-developed spikelets at emergence <implicit>/
  2. juvenile spikelets at emergence/
- #277. Inflorescence <tumbleweed>/
1. not deciduous as a whole <unless composed of a single spikelet> <implicit>/
  2. deciduous as a whole/
- #278. Inflorescence <presence of rudimentary bracts within inflorescence; see also subtending leaf, peduncle tip and basal sterile spikelets>/
1. without bracts <implicit>/
  2. bracteate at branch bases/
  3. bracteate at pedicel base/
- #279. Inflorescence subtended by <type of subtending leaf>/
1. an unspecialized leaf-sheath <implicit>/
  2. an inflated leaf-sheath <lightly inflated, with blade>/
  3. a spatheole <or spathe, much modified with rudimentary blade>/
  4. sheathless <or inconspicuously sheathed> blades/
  5. bracts/
- #280. Inflorescence <exsertion from sheath>/
1. exserted <implicit>/
  2. embraced at base by subtending leaf/
  3. enclosed <by sheath or spatheole>/
- #281. Inflorescence with <number, when several emerging from a sheath>/  
peduncles per sheath/
- #282. Axillary inflorescences present <location>/
1. throughout the plant/
  2. in upper axils/
  3. in lower axils/
- #283. Axillary inflorescences <comparison with terminal - if the latter fertile>/
1. similar to terminal/
  2. different from terminal/
  3. intermingled with terminal/
- #284. Axillary inflorescences <shape>/
1. open/

- 2. loosely contracted/
- 3. compact/
- 4. enclosed/
- #285. Spatheole <form; excluding secondary bractlets when present>/
  - 1. cymbiform or tubular <implicit>/
  - 2. expanded/
  - 3. glumaceous/
- #286. Spatheole <outline> <ordered>/
  - 1. linear/
  - 2. lanceolate/
  - 3. elliptic/
  - 4. oblong/
  - 5. ovate/
  - 6. globose/
- #287. Spatheole <length>/
  - cm long/
- #288. Spatheole <consistency>/
  - 1. hyaline/
  - 2. membranous/
  - 3. chartaceous/
  - 4. herbaceous/
  - 5. scariosus/
  - 6. coriaceous/
  - 7. indurate/
- #289. Spatheole <colour>/
  - 1. yellow/
  - 2. green/
  - 3. glaucous/
  - 4. grey/
  - 5. brown/
  - 6. red/
  - 7. purple/
- #290. Spatheole <presence of tubercles>/
  - 1. without tubercles/
  - 2. tuberculate/
- #291. Spatheole <indumentum> <ordered>/
  - 1. glabrous/
  - 2. puberulous/
  - 3. pubescent/
  - 4. pilose/
  - 5. hirsute/
  - 6. setose/
- #292. Peduncle <presence>/
  - 1. brief, the inflorescence sessile/
  - 2. distinct <implicit>/
- #293. Peduncle <flexion>/
  - 1. straight <implicit>/
  - 2. nodding/
  - 3. flexuous/
  - 4. deflexed/
- #294. Peduncle <transverse section>/
  - 1. terete/
  - 2. elliptic in section/
  - 3. angular/
  - 4. flattened/
- #295. Peduncle <length>/
  - cm long/
- #296. Peduncle <presence of glands>/
  - 1. eglandular/
  - 2. glandular/

- #297. Peduncle <roughness below inflorescence>/
1. smooth/
  2. scaberulous above/
  3. antrorsely scabrous above/
  4. retrorsely scabrous above/
  5. tuberculate above/
- #298. Peduncle <indumentum below inflorescence> <ordered>/
1. glabrous/
  2. pubescent above/
  3. pilose above/
  4. hirsute above/
  5. hispid above/
- #299. Peduncle <apical expansion>/
1. cylindrical at apex/
  2. widened at apex/
  3. expanded into a conical flask at apex/
  4. tipped by a glumaceous appendage <of uncertain homology; see also subtending leaf, indeterminate bracts within inflorescence, and basal sterile spikelets>/
- #300. Peduncle <persistence>/
1. persistent <on culm> <implicit>/
  2. fracturing <part way along>/
  3. disarticulating <with all or part of the inflorescence>/
- #301. Peduncle disarticulating <with uppermost sheath>/
1. above uppermost sheath/
  2. below uppermost sheaths <or spatheole>/
- #302. Peduncle base <shape - if disarticulating and leafless>/
1. blunt/
  2. pungent/
- #303. Panicle <type>/
1. open/
  2. contracted/
  3. spiciform/
  4. glomerate/
  5. capitate/
- #304. Panicle <outline> <ordered>/
1. linear/
  2. lanceolate/
  3. elliptic/
  4. oblong/
  5. ovate/
  6. pyramidal/
  7. globose/
  8. obovate/
  9. corymbose/
- #305. Panicle <interruption>/
1. continuous <confluent if glomerate>/
  2. interrupted/
- #306. Panicle <density>/
1. dense/
  2. loose/
  3. effuse/
- #307. Panicle <taper - if spiciform>/
1. truncate or rounded at the ends <implicit>/
  2. tapering above/
  3. tapering below/
- #308. Panicle <one-sided>/
1. equilateral <implicit>/
  2. nodding <to one side>/
  3. secund/
- #309. Panicle <straightness>/

1. straight/
2. curved/
3. flexuous/
- #310. Panicle <length>/  
cm long/
- #311. Panicle <width>/  
cm wide/
- #312. Panicle <fraction of culm length>/  
of <total> culm length/
- #313. Panicle bearing <sparse>/  
1. many spikelets <implicit>/  
2. few spikelets <few enough to count>/
- #314. Panicle <spikelet distribution - if open or contracted, but not raceme-tipped>/  
1. evenly furnished <with spikelets> <implicit>/  
2. contracted about primary branches/  
3. contracted about secondary branches/  
4. with spikelets clumped along branches/  
5. gathered into fascicles/  
6. with spikelets clustered towards branch tips/
- #315. Primary panicle branches <accrescence>/  
1. free <implicit>/  
2. accrescent to a central axis/
- #316. Primary panicle branches <or clusters - number>/  
in number/
- #317. Primary panicle branches <development - if accrescent to a central axis. Rest of branches inapplicable, but see central axis>/  
1. with evident branchlets on axis/  
2. with lateral <branch or pedicel> stumps on axis/  
3. with sessile scars on axis/
- #318. Primary panicle branches <carriage>/  
1. appressed <erect>/  
2. ascending/  
3. spreading/  
4. drooping/  
5. reflexed/
- #319. Primary panicle branches <spacing>/  
1. closely spaced/  
2. moderately spaced/  
3. distant/
- #320. Primary panicle branches <number at lowest node>/  
-nate/
- #321. Primary panicle branches <whorled>/  
1. not whorled <implicit>/  
2. whorled at lower nodes <only>/  
3. whorled at most nodes/
- #322. Primary panicle branches <amount of branching> <ordered>/  
1. indistinct the panicle almost racemose/  
2. simple/  
3. sparsely divided/  
4. moderately divided <implicit>/  
5. profusely divided/
- #323. Primary panicle branches subdividing <orders of branching>/  
times <not counting pedicels>/
- #324. Primary panicle branches branching <type of branching>/  
1. laterally <implicit>/  
2. dichotomously <dividing into equal parts>/  
3. divaricately <widely divergent>/
- #325. Primary panicle branches rebranched <origin of proximal secondary branches>/  
1. near base/  
2. below middle/

- 3. at middle/
- 4. above middle/
- #326. Primary panicle branches <length>/  
cm long/
- #327. Primary panicle branches with lower <length as fraction of panicle>/  
length of panicle/
- #328. Primary panicle branches bearing <number of spikelets>/  
fertile spikelets on each lower branch/
- #329. Primary panicle branches <naked or sterile below - if open or contracted>/
  - 1. naked below <implicit>/
  - 2. bearing spikelets almost to the base/
  - 3. bearing sterile spikelets below, fertile at tip/
  - 4. elongating after flowering/
- #330. Primary panicle branches <presence of sterile branches>/
  - 1. without sterile bristles <implicit>/
  - 2. sterile at the tips <with or without other sterile branches>/
  - 3. <wholly> sterile at lowest node/
- #331. Panicle axis <conspicuousness>/
  - 1. dominant/
  - 2. distinct/
  - 3. differing little from branches/
- #332. Panicle axis <number of nodes>/  
noded/
- #333. Panicle axis with lower internodes <length>/  
cm long/
- #334. Panicle axis <transverse section>/
  - 1. terete/
  - 2. with rounded ribs/
  - 3. angular <or long angular ribs>/
  - 4. with briefly decurrent <angular> ribs/
  - 5. flat/
- #335. Panicle axis <presence of glands>/
  - 1. eglandular/
  - 2. glandular/
- #336. Panicle axis <roughness> <ordered>/
  - 1. smooth/
  - 2. with occasional prickles/
  - 3. scaberulous/
  - 4. <antrorsely> scabrous/
  - 5. retrorsely scabrous/
  - 6. tuberculate/
- #337. Panicle axis <indumentum> <ordered>/
  - 1. with scattered hairs/
  - 2. glabrous <implicit>/
  - 3. puberulous/
  - 4. pubescent/
  - 5. pilose/
  - 6. hirsute/
  - 7. villous/
  - 8. plumose/
  - 9. hispidulous/
  - 10. hispid/
- #338. Panicle axis with <hair type>/
  - 1. simple hairs <implicit>/
  - 2. tubercle-based hairs/
  - 3. hooked hairs/
  - 4. capitate hairs/
  - 5. clavellate hairs/
- #339. Panicle axis bearing <persistence of branches>/
  - 1. persistent branches <but may be tipped by a fragile raceme> <implicit>/

- 2. deciduous <elongated> branches/
- 3. deciduous spikelet clusters <or involucre>/
- #340. Panicle branches <stiffness>/
  - 1. stiff/
  - 2. flexible <implicit>/
  - 3. capillary/
- #341. Panicle branches <curvature>/
  - 1. straight/
  - 2. arcuate/
  - 3. flexuous/
  - 4. sinuous/
  - 5. zig-zag/
  - 6. tangled/
  - 7. abruptly recurved near tip/
- #342. Panicle branches <transverse section>/
  - 1. terete/
  - 2. channelled/
  - 3. angular/
  - 4. flat/
- #343. Panicle branches <apical expansion, usually when bearing racemes>/
  - 1. parallel-sided/
  - 2. apically expanded/
- #344. Panicle branches <whether secund>/
  - 1. multilateral <or irregular>/
  - 2. secund/
- #345. Panicle branches bearing <spikelet density>/
  - 1. congested spikelets/
  - 2. approximate spikelets/
  - 3. distant spikelets/
  - 4. the terminal spikelet distant on a long pedicel/
- #346. Panicle branches <presence of sessile glands>/
  - 1. eglandular/
  - 2. glandular/
- #347. Panicle branches <exudate>/
  - 1. without exudate <implicit>/
  - 2. pruinose/
  - 3. viscid/
  - 4. resinous/
- #348. Panicle branches <roughness> <ordered>/
  - 1. smooth/
  - 2. with occasional prickles/
  - 3. scaberulous/
  - 4. <antrorsely> scabrous/
  - 5. retrorsely scabrous/
  - 6. tuberculate/
- #349. Panicle branches rough <where>/
  - 1. proximally/
  - 2. throughout/
  - 3. distally/
- #350. Panicle branches <surface indumentum> <ordered>/
  - 1. with scattered hairs/
  - 2. glabrous <implicit>/
  - 3. puberulous/
  - 4. pubescent/
  - 5. pilose/
  - 6. hirsute/
  - 7. villous/
  - 8. plumose/
  - 9. hispidulous/
  - 10. hispid/

- #351. Panicle branches hairy <where>/  
 1. generally <implicit>/  
 2. at tip/
- #352. Panicle branches with <hair type>/  
 1. simple hairs <implicit>/  
 2. tubercle-based hairs/  
 3. hooked hairs/  
 4. capitate hairs/  
 5. clavellate hairs/  
 6. turgid hairs/
- #353. Panicle branches <axillary hairs>/  
 1. glabrous in axils/  
 2. pubescent in axils/  
 3. bearded in axils/
- #354. Panicle branches <presence of pulvini>/  
 1. with insignificant pulvini/  
 2. with prominent pulvini/
- #355. Panicle branches terminating in a <bristle length if sterile only at tip (not involucre)>/  
 mm long bristle/
- #356. Racemes <numerous>/  
 1. few <up to 30> <implicit>/  
 2. numerous/
- #357. Racemes <number>/  
 /
- #358. Racemes <disposition>/  
 1. single/  
 2. paired/  
 3. digitate/  
 4. borne along a central axis/
- #359. Racemes <spacing>/  
 1. simply spaced <in 1 whorl or moderately dispersed> <implicit>/  
 2. the lowest whorled <the rest scattered>/  
 3. in several whorls/  
 4. distant/  
 5. closely spaced/
- #360. Racemes <compaction>/  
 1. not compacted <implicit>/  
 2. in a unilateral false spike/  
 3. in a bilateral false spike/  
 4. in a multilateral false spike/  
 5. in an interrupted false spike/  
 6. in a head/
- #361. Racemes <special cases if paired or digitate>/  
 1. side by side <implicit>/  
 2. end to end/  
 3. appressed back to back/  
 4. intertwined/  
 5. with abortive upper raceme represented by a single sterile spikelet/
- #362. Racemes <carriage>/  
 1. sunken/  
 2. appressed/  
 3. erect/  
 4. ascending <implicit>/  
 5. spreading <horizontally>/  
 6. radiating <in all directions>/  
 7. drooping/  
 8. deflexed/
- #363. Racemes <outline>/  
 1. linear <implicit>/  
 2. moniliform/

- 3. lanceolate/
- 4. oblong/
- 5. ovate/
- 6. globose/
- 7. obovate/
- 8. clavate/
- 9. cuneate/
- #364. Racemes <curvature>/
  - 1. straight <implicit>/
  - 2. arcuate/
  - 3. flexuous/
  - 4. sinuous <or zig-zag>/
  - 5. incurved/
  - 6. corkscrew spiralled/
  - 7. watch-spring spiralled/
- #365. Racemes <whether cylindrical, the spikelets flush with internodes to form a rat tail>/
  - 1. ragged <implicit>/
  - 2. smoothly terete/
- #366. Racemes <number of sides bearing fertile spikelets>/
  - 1. unilateral/
  - 2. bilateral/
  - 3. paucilateral <indefinite or irregular>/
  - 4. multilateral <bottle-brush>/
- #367. Racemes <length>/
  - cm long/
- #368. Racemes <width, including spikelets>/
  - mm wide/
- #369. Racemes bearing <few or many spikelets>/
  - 1. 1 spikelet <of any kind>/
  - 2. a triad of spikelets <usually 1 fertile, 2 sterile>/
  - 3. few fertile spikelets/
  - 4. many spikelets <implicit>/
- #370. Racemes bearing <number of fertile spikelets if few>/
  - fertile spikelets on each/
- #371. Racemes <presence of secondary branches>/
  - 1. simple <implicit>/
  - 2. with branchlets <only> at base of longer racemes/
  - 3. secondarily branched/
- #372. Racemes <with> secondary branches <shape>/
  - 1. racemulose/
  - 2. glomerate/
  - 3. involucre/
- #373. Central inflorescence axis <length>/
  - cm long/
- #374. Central inflorescence axis <consistency>/
  - 1. unspecialized <terete or angular> <implicit>/
  - 2. flattened <but not foliaceous>/
  - 3. winged/
  - 4. foliaceous/
  - 5. corky/
  - 6. woody/
- #375. Central inflorescence axis <fragility>/
  - 1. tough <implicit>/
  - 2. fracturing into irregular segments/
  - 3. disarticulating at nodes/
- #376. Central inflorescence axis <indumentum> <ordered>/
  - 1. with scattered hairs/
  - 2. glabrous/
  - 3. puberulous/
  - 4. pubescent/

- 5. pilose/
- 6. hirsute/
- 7. villous/
- 8. hispid/
- #377. Central inflorescence axis tip <shape>/
  - 1. without extension <implicit>/
  - 2. with blunt extension/
  - 3. subulate/
  - 4. filiform/
  - 5. spinose/
- #378. Rhachis <presence>/
  - 1. evident <above lowest spikelet> <implicit>/
  - 2. obsolete <raceme-base may be present>/
- #379. Rhachis <fragility>/
  - 1. tough <or obsolete> <implicit>/
  - 2. fracturing into irregular segments/
  - 3. fragile at the nodes/
  - 4. fragile but the lowest <fertile> internode fused to peduncle/
- #380. Rhachis <including raceme-base - persistence, if tough but not single>/
  - 1. persistent <implicit>/
  - 2. deciduous from axis/
- #381. Rhachis <persistence of secondary branches>/
  - 1. with persistent <on the rhachis> secondary branchlets <implicit>/
  - 2. with separately deciduous secondary branchlets/
- #382. Rhachis <presence of wings>/
  - 1. wingless <implicit>/
  - 2. narrowly winged/
  - 3. broadly winged <wider than midrib>/
- #383. Rhachis <consistency - if broadly winged>/
  - 1. membranous/
  - 2. herbaceous <implicit>/
  - 3. foliaceous/
- #384. Rhachis <folding - if winged>/
  - 1. not appreciably folded <implicit>/
  - 2. folded longitudinally to embrace spikelets/
  - 3. folded transversely to form a capsule/
  - 4. forming pockets/
- #385. Rhachis with <shape of midrib if winged>/
  - 1. sharp-edged midrib/
  - 2. rounded midrib/
- #386. Rhachis <cross-section - inapplicable if broadly winged>/
  - 1. flattened/
  - 2. angular <including triquetrous>/
  - 3. subterete/
  - 4. semiterete <flat or slightly hollowed on one face>/
  - 5. subcylindrical and excavated/
  - 6. enlarged into a woody cob/
- #387. Rhachis <width>/
  - mm wide/
- #388. Rhachis <colour - comment on actual colour>/
  - 1. light-coloured/
  - 2. drab <green or stramineous>/
  - 3. dark-coloured/
- #389. Rhachis <surface roughness>/
  - 1. smooth on surface/
  - 2. scabrous on surface/
- #390. Rhachis <surface indumentum> <ordered>/
  - 1. with scattered hairs/
  - 2. glabrous on surface/
  - 3. puberulous on surface/

- 4. pubescent on surface/
- 5. pilose on surface/
- 6. hirsute on surface/
- 7. villous on surface/
- 8. plumose on surface/
- 9. woolly on surface/
- #391. Rhachis <marginal or edge roughness> <ordered>/
  - 1. smooth on margins/
  - 2. scaberulous on margins/
  - 3. scabrous on margins/
  - 4. spinulose on margins/
  - 5. tuberculate on margins/
- #392. Rhachis <marginal or edge hairs> <ordered>/
  - 1. glabrous on margins/
  - 2. pubescent on margins/
  - 3. ciliate on margins/
  - 4. villous on margins/
  - 5. plumose on margins/
  - 6. setose on margins/
- #393. Rhachis terminating in a <presence of sterile tip>/
  - 1. spikelet <fertile or underdeveloped (incl terminal triplet in Andropogoneae)> <implicit>/
  - 2. <modified> sterile spikelet/
  - 3. barren extension/
- #394. Rhachis extension <shape>/
  - 1. inconspicuous/
  - 2. flattened/
  - 3. subulate/
  - 4. bristle-like/
  - 5. a forked bristle/
  - 6. a fan of bristles/
- #395. Rhachis extension <length>/
  - mm long/
- #396. Rhachis hairs <above or below on internode>/
  - 1. evenly distributed/
  - 2. lengthening towards internode tip/
  - 3. mainly at internode tip/
  - 4. on upper part of internode/
  - 5. on lower part of internode/
- #397. Rhachis hairs <on how many margins or edges>/
  - 1. on 1 margin/
  - 2. on 2 margins/
  - 3. on 3 margins/
- #398. Rhachis hairs <colour of principal hairs>/
  - 1. white/
  - 2. grey/
  - 3. yellow/
  - 4. tawny/
  - 5. dark brown/
  - 6. red/
  - 7. purple/
- #399. Rhachis hairs <length of principal hairs>/
  - mm long/
- #400. Spikelet packing <orientation relative to lower glume - if unambiguous>/
  - 1. adaxial/
  - 2. abaxial/
  - 3. alternately adaxial and abaxial <Thrasya>/
  - 4. broadside to rhachis/
- #401. Spikelet packing <whether opposite - if bilateral>/
  - 1. alternate <implicit>/
  - 2. opposite/

- #402. Spikelet packing <density>/
1. crowded/
  2. contiguous <implicit>/
  3. lax/
  4. distant/
- #403. Spikelet packing with <equality of internodes>/
1. subequal internodes <implicit>/
  2. lowest <fertile> internode elongated/
  3. upper internodes elongated/
- #404. Spikelet packing <per cm>/  
spikelets per cm/
- #405. Spikelet packing <distance between spikelets in same row (comment if ambiguous) as a fraction of their length>/  
their length apart/
- #406. Spikelet packing <regularity of rows>/
1. irregular/
  2. regular/
- #407. Spikelet packing <number of rows if evident>/  
-rowed/
- #408. Rhachis internodes <shape>/
1. indefinite <rhachis continuous without evident segments; length then measured between origins of pedicels or pedicel groups> <implicit>/
  2. filiform/
  3. linear/
  4. columnar <cultrate>/
  5. oblong/
  6. clavate <linear below, widening above - but tip scored separately>/
  7. cuneate/
  8. pyriform/
  9. inflated/
  10. hour-glass shaped/
- #409. Rhachis internodes <length>/  
mm long/
- #410. Rhachis internodes <length as fraction of spikelet>/  
length of fertile spikelet/
- #411. Rhachis internodes <abscission mode - if fragile>/
1. falling with spikelet alongside <implicit>/
  2. falling with spikelet above/
  3. falling in segments of 1–2 fertile nodes surmounted by 1–3 nodes of sterile spikelets, these alternating along the raceme/
- #412. Rhachis internodes <special cases - if fragile>/
1. unspecialized <implicit>/
  2. flat and forming a U or V shape with the pedicel in rear view/
  3. with a basal circular pore between internode and pedicel/
  4. together with the pedicel framing edges of sessile spikelets/
  5. adherent to upper glume of sessile spikelet/
  6. bearing a sterile companion laterally <its pedicel fused to and shorter than internode>/
  7. with the lower <fertile> often bearing triads <instead of a pair>/
- #413. Rhachis internode tip <shape>/
1. not enlarged <relative to body of internode>/
  2. clavate <gradually widening>/
  3. pyriform/
  4. discoid/
- #414. Rhachis internode tip <obliquity>/
1. transverse/
  2. oblique/
- #415. Rhachis internode tip <concavity>/
1. flat/
  2. cupuliform/
  3. crateriform/

- 4. notched/
- #416. Rhachis internode tip with <rim features>/
  - 1. simple rim/
  - 2. lobed rim/
  - 3. scarious rim/
  - 4. hairy rim/
- #417. Raceme-bases <shape - of partial peduncle or naked rhachis supporting individual racemes, when more than one>/
  - 1. brief <insignificant but sometimes bearing ornamentation> <implicit>/
  - 2. filiform/
  - 3. linear/
  - 4. cuneate/
  - 5. flattened <strap-shaped>/
  - 6. swollen/
- #418. Raceme-bases <branching - if racemes digitate>/
  - 1. simple <implicit>/
  - 2. dichotomously branched/
- #419. Raceme-bases <equality>/
  - 1. subequal/
  - 2. unequal (the longer measured)/
- #420. Raceme-bases <length>/
  - mm long/
- #421. Raceme-bases <indumentum> <ordered>/
  - 1. glabrous/
  - 2. pubescent/
  - 3. pilose/
  - 4. hirsute/
  - 5. plumose/
  - 6. stiffly setose/
- #422. Raceme-bases hairy <where>/
  - 1. generally <implicit>/
  - 2. at tip/
  - 3. on margins/
  - 4. at base/
  - 5. in axils/
- #423. Raceme-bases with <hair length>/
  - mm long hairs/
- #424. Raceme-bases <presence of appendage>/
  - 1. unappendaged <implicit>/
  - 2. scariously rimmed/
  - 3. shortly lobed/
  - 4. extended into an oblong appendage/
  - 5. extended into a flask-like appendage/
- #425. Raceme-bases with <length of appendage>/
  - mm long appendage/
- #426. Raceme-bases <persistence>/
  - 1. persistent <on plant>/
  - 2. shed with the raceme/
- #427. Raceme-bases <shape of base - if deciduous>/
  - 1. truncate/
  - 2. obtuse/
  - 3. acute/
  - 4. pungent/
- #428. Sexes <segregation - if monoecious on same inflorescence>/
  - 1. mixed/
  - 2. segregated/
- #429. Sexes <segregated> on <same or separate branches>/
  - 1. unisexual branches/
  - 2. bisexual branches/
- #430. Sexes with male <above or below - if segregated>/

1. above/
  2. conjugate <unisexual branches at same level>/
  3. below/
- #431. Sexes with <number of male spikelets>/  
male spikelets per branch/
- #432. Spikelets <inclination relative to branch>/
1. embracing internode/
  2. sunken/
  3. squeezed between internode and pedicel <Andropogoneae - if pedicel free>/
  4. appressed/
  5. ascending/
  6. spreading/
  7. pectinate/
  8. pendulous/
  9. deflexed/
- #433. Spikelets <kinds of cluster. The clusters may include sterile and monoecious male spikelets. A deciduous inflorescence does not count as a single cluster, but may contain clusters. Inapplicable if bractiferous>/
1. solitary/
  2. in pairs <may include barren pedicels>/
  3. in threes <not counting terminal triplet in a raceme of paired spikelet>/
  4. clustered at each node <more than 3 spikelets, but not involucre>/
  5. in a cluster of closely packed nodes/
  6. subtended by an involucre <may be of only a few bristles or sterile spikelets; not counting basal sterile spikelets>/
- #434. Fertile spikelets <presence of pedicels, which may be connate>/
1. sessile <or subsessile with pedicel represented by a brief stump>/
  2. sessile and pedicelled/
  3. pedicelled/
- #435. Fertile spikelets <number in cluster>/  
in the cluster/
- #436. Fertile spikelets <similarity, other than size>/
1. all alike <implicit>/
  2. heteromorphic <comment on difference>/
- #437. Fertile spikelets <equality if clustered>/
1. subequal/
  2. the upper smaller/
  3. the lower smaller/
  4. the lateral <when level> smaller/
  5. the central <when level> smaller/
- #438. Fertile spikelets <relative pedicel length, if clustered with pedicelled sterile (or male) spikelets>/
1. on shorter pedicels than sterile/
  2. on similar pedicels to sterile/
  3. on longer pedicels than sterile/
- #439. Fertile spikelets <number of sessile in cluster, if some fertile spikelets pedicelled>/  
sessile/
- #440. Companion sterile spikelets <presence of pedicels>/
1. sessile/
  2. sessile & pedicelled/
  3. pedicelled/
- #441. Companion sterile spikelets <number in cluster>/  
in the cluster/
- #442. Male spikelets <diclinous male, presence of pedicels>/
1. sessile/
  2. sessile and pedicelled/
  3. pedicelled/
- #443. Male spikelets <number in cluster>/  
in a cluster/
- #444. Involucre composed of <type>/
1. bristles <may include some sterile spikelets>/
  2. imperfect spikelets <only - includes Anthephora>/

- #445. Involucre <union of parts>/  
 1. free throughout <implicit>/  
 2. united into a herbaceous lobed scale/  
 3. connate into a disc below/  
 4. connate into a cup below/  
 5. with pedicels forming a cup/  
 6. with pedicels forming a long tube/  
 #446. Involucre with <length of disc or cup>/  
 mm connate/  
 #447. Involucre <shape of whole involucre> <ordered>/  
 1. linear/  
 2. lanceolate/  
 3. elliptic/  
 4. oblong/  
 5. ovate/  
 6. globose/  
 7. oblate/  
 8. obovate/  
 9. flabellate/  
 10. cuneate/  
 #448. Involucre <length overall, but excluding single emergent bristle when present>/  
 mm long/  
 #449. Involucre base <shape>/  
 1. truncate/  
 2. obtuse/  
 3. obconical/  
 4. bluntly stipitate/  
 5. pungently stipitate/  
 #450. Involucre base <length>/  
 mm long/  
 #451. Involucre base <indumentum>/  
 1. glabrous/  
 2. pubescent/  
 3. pilose/  
 4. villous/  
 #452. Involucral bristles <persistence>/  
 1. persistent/  
 2. deciduous with the fertile spikelets/  
 #453. Involucral bristles <branching>/  
 1. simple <implicit>/  
 2. branched/  
 #454. Involucral bristles <few or many>/  
 1. few <implicit>/  
 2. numerous/  
 #455. Involucral bristles <whorls>/  
 1. in one whorl/  
 2. with an outer whorl of thinner bristles/  
 3. emerging irregularly from body of a burr/  
 #456. Involucral bristles <number>/  
 in principal whorl <excluding the whorl of short outer bristles, if present>/  
 #457. Involucral bristles <number per spikelet if assignable - spikelets include abortive ones>/  
 per spikelet/  
 #458. Involucral inner bristles <relative length of inner and outer>/  
 1. shorter than outer/  
 2. subequal to outer/  
 3. longer than outer/  
 #459. Involucral bristles <presence of 1 longer bristle>/  
 1. with longest bristle scarcely emergent/  
 2. with one conspicuously longer bristle/  
 #460. Involucral bristles <length above union of longest>/

- mm long/
- #461. Involucral bristles <flattening>/
1. terete/
  2. flattened/
  3. expanded <narrowly elliptic and cartilaginous>/
- #462. Involucral bristles <presence of grooves>/
1. without grooves/
  2. grooved on the face/
- #463. Involucral bristles <stiffness>/
1. flexible/
  2. rigid/
- #464. Involucral bristles <stickiness>/
1. without exudate <implicit>/
  2. viscid/
- #465. Involucral bristles <roughness>/
1. smooth/
  2. antrorsely scaberulous <only>/
  3. retrorsely scaberulous <at least partly>/
- #466. Involucral bristles retrorse <whether wholly or partly>/
1. entirely/
  2. above, antrorse below/
  3. mingled with antrorse scabridity/
- #467. Involucral bristles <indumentum> <ordered>/
1. glabrous/
  2. pubescent/
  3. ciliate <or pilose>/
  4. villous/
  5. plumose/
  6. woolly/
- #468. Involucral bristles <shape of tip>/
1. obtuse/
  2. acute/
  3. spinose/
  4. attenuate <implicit>/
- #469. Pedicels <presence. Refers to principal pedicels - usually supporting sterile spikelets in Andropogoneae - but clarify in comment if ambiguous. Not counting basal sterile spikelets>/
1. absent <or square and inconspicuous> <implicit>/
  2. present <or square and ornamented>/
- #470. Pedicels <fusion>/
1. free <implicit>/
  2. adnate at the base to lower glume of sessile spikelet/
  3. with the longest <of several> adnate below to <unjointed> rhachis/
  4. fused to internode/
  5. fused to each other/
- #471. Pedicels united <how much - if fused to internode or each other>/
1. wholly/
  2. along margins <or some of them. When fused to each other>/
  3. at tip/
  4. below/
- #472. Pedicels <shape>/
1. filiform/
  2. linear/
  3. columnar <cultrate>/
  4. oblong/
  5. narrowly elliptic/
  6. clavate <linear below, widening above - but tip scored separately>/
  7. cuneate/
  8. pyriform/
  9. inflated/
  10. reduced to a stump <but bearing ornamentation, the spikelets sessile>/

- #473. Pedicels <transverse section>/
1. terete/
  2. semiterete/
  3. angular/
  4. flattened/
  5. foliaceous/
- #474. Pedicels <curvature>/
1. straight/
  2. curved/
  3. flexuous/
  4. sinuous/
  5. recurved/
- #475. Pedicels <equality>/
1. subequal/
  2. unequal/
- #476. Pedicels <length; generally of principals in a raceme or laterals in a panicle>/  
mm long/
- #477. Pedicels <length as fraction of fertile spikelet>/  
length of fertile spikelet/
- #478. Pedicels <length as fraction of internode - mainly Andropogoneae>/  
length of internode/
- #479. Pedicels <length of terminal if different>/  
mm long at branch tip/
- #480. Pedicels <presence of glands>/
1. eglandular/
  2. glandular/
- #481. Pedicels <presence of translucent median line>/
1. without a translucent median line <implicit>/
  2. with a translucent median line (also present in internodes)/
- #482. Pedicels <roughness>/
1. smooth/
  2. scaberulous/
  3. scabrous/
- #483. Pedicels <indumentum> <ordered>/
1. bearing a few <long> hairs/
  2. glabrous/
  3. puberulous/
  4. pubescent/
  5. ciliate <or pilose>/
  6. villous/
  7. plumose/
  8. setose/
- #484. Pedicels hairy <at tip or base>/
1. all along/
  2. all along but hairs longer above/
  3. at tip <only>/
  4. above/
  5. in the middle/
  6. below/
  7. at base/
- #485. Pedicels hairy on <surface or margins>/
1. surface/
  2. margins <more than 1>/
  3. one margin/
- #486. Pedicels with <hair colour>/
1. white hairs/
  2. grey hairs/
  3. yellow hairs/
  4. tawny hairs/
  5. dark brown hairs/

- 6. red hairs/
- 7. purple hairs/
- #487. Pedicels with <length of hairs>/  
mm long hairs/
- #488. Pedicels <with> tip <shape>/
  - 1. rectangular/
  - 2. oblique/
  - 3. widened <but shape indefinite>/
  - 4. discoid/
  - 5. cupuliform/
  - 6. globular/
  - 7. pyriform/
  - 8. lobed/
- #489. Pedicels <presence of appendages>/
  - 1. without appendage <implicit>/
  - 2. winged/
  - 3. auriculate <laterally>/
  - 4. toothed <a distinct apical tooth, as opposed to irregular lobes>/
  - 5. bibracteate <Oryza>/
- #490. Basal sterile spikelets <presence at base of inflorescence or individual racemes, but excluding companions in isolated triads>/
  - 1. absent <implicit>/
  - 2. represented by a single scale <glume or vestige>/
  - 3. rudimentary <but of several scales>/
  - 4. well-developed/
- #491. Basal sterile spikelets <number in inflorescence; or lower raceme when more than 1, but indicate this in comment>/  
in number/
- #492. Basal sterile spikelets <number in upper raceme>/  
in upper racemes/
- #493. Basal sterile spikelets <whether clustered>/
  - 1. single/
  - 2. paired/
  - 3. paired with a fertile pedicelled spikelet <but confined to base so not regular companions>/
- #494. Basal sterile spikelets <whether involucrel>/
  - 1. not involucrel <implicit>/
  - 2. forming an involucre about the fertile/
- #495. Basal sterile spikelets <special internodes>/
  - 1. with normal internodes <implicit>/
  - 2. with both pairs arising at about the same level/
  - 3. with swollen internode in lower raceme/
- #496. Basal sterile spikelets <presence of pedicels>/
  - 1. sessile <pedicels at most square>/
  - 2. sessile and pedicelled/
  - 3. pedicelled/
- #497. Basal sterile spikelets <persistence>/
  - 1. persistent <or tardily deciduous> <implicit>/
  - 2. deciduous with the fertile/
  - 3. separately deciduous/
- #498. Basal sterile spikelet pedicels <fusion to internode>/
  - 1. free <implicit>/
  - 2. fused to internode in lower raceme/
- #499. Basal sterile spikelet pedicels <shape>/
  - 1. linear/
  - 2. oblong/
  - 3. swollen <barrel-shaped> in lower raceme/
  - 4. square/
- #500. Basal sterile spikelet pedicels <length>/  
mm long/
- #501. Basal sterile spikelets <sex, if well-developed>/

1. barren/
2. male/
- #502. Basal sterile spikelets <outline> <ordered>/
  1. linear/
  2. lanceolate/
  3. elliptic/
  4. oblong/
  5. ovate/
  6. orbicular/
  7. oblate/
  8. obovate/
  9. flabellate/
  10. cuneate/
- #503. Basal sterile spikelets <length>/  
mm long/
- #504. Basal sterile spikelets <size relative to fertile>/
  1. smaller than fertile/
  2. equalling fertile/
  3. larger than fertile/
- #505. Basal sterile spikelet glumes <consistency of lower or only glume>/
  1. membranous/
  2. chartaceous/
  3. herbaceous/
  4. scarios/
  5. cartilaginous/
  6. coriaceous/
  7. indurate/
- #506. Basal sterile spikelet glumes <presence of wing>/
  1. wingless <implicit>/
  2. winged on keel/
  3. winged on margins/
- #507. Basal sterile spikelet glumes <presence of depressions>/
  1. without depressions <implicit>/
  2. pitted/
  3. lacunose/
- #508. Basal sterile spikelet glumes <roughness>/
  1. smooth/
  2. scaberulous/
  3. scabrous/
  4. tuberculate/
  5. rugose/
- #509. Basal sterile spikelet glumes <surface indumentum>/
  1. glabrous/
  2. pubescent/
  3. pilose/
  4. hirsute/
  5. villous/
  6. setose/
- #510. Basal sterile spikelet glumes with <hair colour>/
  1. white hairs/
  2. grey hairs/
  3. yellow hairs/
  4. tawny hairs/
  5. dark brown hairs/
  6. red hairs/
  7. purple hairs/
- #511. Basal sterile spikelet glumes <marginal vesture>/
  1. smooth on margins/
  2. scabrous on margins/
  3. tuberculate on margins/

- 4. ciliate on margins/
- 5. setose on margins/
- #512. Basal sterile spikelet glumes <shape of apex>/
  - 1. emarginate/
  - 2. truncate/
  - 3. obtuse/
  - 4. acute/
  - 5. acuminate/
  - 6. attenuate/
  - 7. setaceously acuminate/
- #513. Basal sterile spikelet lower glume <presence of awn>/
  - 1. muticous/
  - 2. mucronate/
  - 3. awned/
- #514. Basal sterile spikelet lemmas <presence of awn>/
  - 1. awnless/
  - 2. awned/
- #515. Companion sterile spikelets <presence, accompanying fertile spikelets in body of inflorescence; include isolated triads and barren pedicels>/
  - 1. absent <implicit>/
  - 2. represented by barren pedicels/
  - 3. represented by awns <record only number of awns, spikelet length and persistence, glume surface indumentum>/
  - 4. represented by single glumes/
  - 5. rudimentary <as to size>/
  - 6. well-developed/
- #516. Companion sterile spikelets comprising <number of awn-like scales>/
  - 1. 1 awn/
  - 2. 2 awns/
  - 3. a tuft of awns/
- #517. Companion sterile spikelets <presence of lemmas - if applicable>/
  - 1. comprising 2 unequal glumes without lemmas/
  - 2. comprising 2 subequal glumes without lemmas/
  - 3. containing empty lemmas/
  - 4. male/
  - 5. male with a few bisexual/
- #518. Companion sterile spikelets <outline, unless awn-like> <ordered>/
  - 1. linear/
  - 2. lanceolate/
  - 3. elliptic/
  - 4. oblong/
  - 5. ovate/
  - 6. orbicular/
  - 7. oblate/
  - 8. obovate/
  - 9. flabellate/
  - 10. cuneate/
- #519. Companion sterile spikelets <symmetry>/
  - 1. symmetrical/
  - 2. asymmetrical/
- #520. Companion sterile spikelets <if developed - compression>/
  - 1. laterally compressed/
  - 2. subterete/
  - 3. dorsally compressed/
- #521. Companion sterile spikelets <length; including awn-like spikelets>/
  - mm long/
- #522. Companion sterile spikelets <length relative to fertile, unless awn-like>/
  - 1. shorter than fertile/
  - 2. as long as fertile/
  - 3. longer than fertile/

- #523. Companion sterile spikelets <persistence>/
1. persistent/
  2. deciduous with the fertile <of its own segment when racemose>/
  3. fused to and deciduous with fertile spikelet belonging to segment above/
  4. separately deciduous/
- #524. Companion sterile spikelet callus <presence>/
1. indistinct <implicit>/
  2. square/
  3. oblong/
  4. cuneate/
  5. linear/
- #525. Companion sterile spikelet callus <length>/
- mm long/
- #526. Companion sterile spikelet callus <shape of base>/
1. 2-toothed/
  2. emarginate/
  3. truncate/
  4. obtuse/
  5. acute/
  6. pungent/
- #527. Companion sterile spikelet glumes <union>/
1. free/
  2. united below/
- #528. Companion sterile spikelet glumes <equality of width>/
1. similar in width/
  2. markedly unequal in width/
- #529. Companion sterile spikelet glumes <lower or only glume - consistency>/
1. membranous/
  2. chartaceous/
  3. herbaceous/
  4. cartilaginous/
  5. coriaceous/
  6. indurate/
  7. subulate <apical characters inapplicable>/
- #530. Companion sterile spikelet glumes <consistency of margins>/
1. similar <consistency> on margins <implicit>/
  2. thinner on margins/
  3. thicker on margins/
- #531. Companion sterile spikelet glumes <length>/
- mm long/
- #532. Companion sterile spikelet glumes <presence of glands>/
1. eglandular/
  2. glandular/
- #533. Companion sterile spikelet glumes <presence of keels>/
1. without keels/
  2. keeled/
- #534. Companion sterile spikelet glumes <presence of wings>/
1. wingless <implicit>/
  2. winged on keels/
  3. winged on margins/
- #535. Companion sterile spikelet glumes <vein distinctness>/
1. inconspicuously veined/
  2. distinctly veined/
  3. ribbed/
- #536. Companion sterile spikelet glumes <vein number>/
- veined/
- #537. Companion sterile spikelet glumes <presence of depressions>/
1. without depressions <implicit>/
  2. pitted/
  3. lacunose/

- 4. sulcate/
- 5. concave/
- #538. Companion sterile spikelet glumes <surface roughness, incl awn-like spikelets> <ordered>/
  - 1. smooth/
  - 2. scaberulous/
  - 3. scabrous/
  - 4. spinulose/
  - 5. tuberculate/
  - 6. muricate/
  - 7. rugose/
- #539. Companion sterile spikelet glumes <surface indumentum, incl awn-like spikelets> <ordered>/
  - 1. glabrous/
  - 2. puberulous/
  - 3. pubescent/
  - 4. pilose/
  - 5. hirsute/
  - 6. villous/
  - 7. plumose/
  - 8. setose/
- #540. Companion sterile spikelet glumes with <hair colour>/
  - 1. white hairs <implicit>/
  - 2. grey hairs/
  - 3. yellow hairs/
  - 4. tawny hairs/
  - 5. dark brown hairs/
  - 6. red hairs/
  - 7. purple hairs/
- #541. Companion sterile spikelet glumes <marginal roughness>/
  - 1. smooth on margins/
  - 2. scaberulous on margins/
  - 3. scabrous on margins/
  - 4. spinulose on margins/
  - 5. tuberculate on margins/
- #542. Companion sterile spikelet glumes <marginal hairs>/
  - 1. eciliate on margins/
  - 2. ciliolate on margins/
  - 3. ciliate on margins/
  - 4. setose on margins/
- #543. Companion sterile spikelet glumes <incision>/
  - 1. entire/
  - 2. erose/
  - 3. dentate/
  - 4. lobed/
- #544. Companion sterile spikelet glumes <number of teeth or lobes>/
  - fid/
- #545. Companion sterile spikelet glumes <shape of apex> <ordered>/
  - 1. emarginate/
  - 2. truncate/
  - 3. obtuse/
  - 4. acute/
  - 5. acuminate/
  - 6. attenuate/
  - 7. setaceously acuminate/
  - 8. caudate/
- #546. Companion sterile spikelet glumes <presence of awn>/
  - 1. muticous/
  - 2. pungent/
  - 3. mucronate/
  - 4. awned/
- #547. Companion sterile spikelet glumes <number of awns, if both glumes present>/

1. one glume awned/
2. both glumes awned/
3. several-awned <more than 1 per glume>/
- #548. Companion sterile spikelet glumes with <awn length>/  
mm long awn/
- #549. Companion sterile spikelet glumes awn <whether hairy>/
  1. glabrous <implicit>/
  2. pubescent/
  3. ciliate/
  4. plumose/
- #550. Companion sterile spikelet lemmas <number>/  
/
- #551. Companion sterile spikelet lemmas <exsertion>/
  1. exserted from glumes/
  2. enclosed by glumes/
- #552. Companion sterile spikelet lemmas <length>/  
mm long/
- #553. Companion sterile spikelet lemmas <incision>/
  1. entire/
  2. dentate/
  3. lobed/
- #554. Companion sterile spikelet lemmas <presence of awns>/
  1. muticous/
  2. 1-awned/
  3. several-awned/
- #555. Companion sterile spikelet lemmas with <awn length>/  
mm long awn/
- #556. Apical sterile spikelets <presence at apex of inflorescence or individual racemes, but excluding  
companions forming pairs or triads with fertile spikelets>/
  1. absent <implicit>/
  2. awn-like/
  3. rudimentary <much smaller than fertile>/
  4. barren <with well developed glumes>/
  5. male/
- #557. Apical sterile spikelets <number>/  
in number/
- #558. Apical sterile spikelets <continuity with fertile portion>/
  1. continuous with fertile portion of inflorescence/
  2. abruptly narrower than fertile portion of inflorescence/
- #559. Apical sterile spikelets <length>/  
mm long/
- #560. Spikelets comprising <number of basal sterile florets or vestiges, if present>/  
basal sterile florets/
- #561. Spikelets comprising <number of fertile florets>/  
fertile florets/
- #562. Spikelets <presence of apical florets>/
  1. without rhachilla extension <beyond uppermost fertile floret>/
  2. with a barren rhachilla extension/
  3. with diminished <sterile or smaller> florets at the apex/
- #563. Spikelets <key couplet for 1-flowered groups> <mandatory>/
  1. of 1 fertile floret with or without additional sterile florets/
  2. of 2 or more fertile florets/
- #564. Spikelets <key couplet for panicoid> <mandatory>/
  1. two-flowered - the lower floret male or barren, the upper fertile <rarely with rhachilla extension or  
rudiment>/
  2. one-many-flowered - if two-flowered then both fertile or the upper sterile/
- #565. Spikelets <outline> <ordered>/
  1. linear/
  2. lanceolate/
  3. elliptic/

- 4. oblong/
- 5. ovate/
- 6. orbicular/
- 7. oblate/
- 8. obovate/
- 9. oblanceolate/
- 10. rhomboid <incl scutate, pentagonal>/
- 11. cuneate/
- #566. Spikelets <comparative width of outline>/
  - 1. narrowly proportioned/
  - 2. moderately proportioned <implicit>/
  - 3. broadly proportioned/
- #567. Spikelets <distinctive solid shape>/
  - 1. of unremarkable solid shape <implicit>/
  - 2. thorn-like/
  - 3. fusiform/
  - 4. turbinate/
  - 5. urceolate/
  - 6. cochleate/
  - 7. hemispherical/
  - 8. globose/
- #568. Spikelets with <shape of base above callus>/
  - 1. cordate base/
  - 2. truncate base/
  - 3. obtuse base/
  - 4. acute base/
  - 5. attenuate base/
- #569. Spikelets <straightness>/
  - 1. straight <implicit>/
  - 2. curved/
  - 3. tilted on the pedicel/
- #570. Spikelets <compression of fertile> <mandatory>/
  - 1. laterally compressed/
  - 2. subterete/
  - 3. dorsally compressed/
- #571. Spikelets compressed <how much>/
  - 1. slightly <spikelets plump>/
  - 2. moderately <implicit>/
  - 3. strongly/
- #572. Spikelets <profile curvature>/
  - 1. symmetrical <implicit>/
  - 2. gibbous/
  - 3. turgidly plano-convex <the flat side slightly gibbous>/
  - 4. plano-convex/
  - 5. concavo-convex/
- #573. Spikelets <shape of apex> <ordered>/
  - 1. truncate/
  - 2. obtuse/
  - 3. subacute/
  - 4. acute/
  - 5. acuminate/
  - 6. cuspidate/
  - 7. rostrate/
  - 8. caudate/
- #574. Spikelets <length>/
  - mm long/
- #575. Spikelets <width>/
  - mm wide/
- #576. Spikelets with hairs extending <length of hairs, if any, beyond apex>/
  - mm beyond apex/

- #577. Spikelets <abscission> <mandatory>/  
 1. persistent on plant <cereals>/  
 2. falling entire/  
 3. breaking up at maturity/
- #578. Spikelets deciduous <site of abscission - if falling entire>/  
 1. from the base <implicit>/  
 2. with the pedicel <but no other organ. There is a homology problem, and a square or oblong stipe is treated as the callus of a sessile spikelet>/  
 3. in a cluster with fused pedicels <and sometimes a basal extension, but no other organ>/  
 4. with accessory branch structures/
- #579. Spikelets <secondary abscission - if falling entire>/  
 1. without secondary abscission <implicit>/  
 2. readily shedding glumes/  
 3. readily shedding fertile florets/  
 4. readily shedding apical florets/
- #580. Pedicel base <shape - if falling attached to its spikelet (or cluster when pedicels fused)>/  
 1. truncate/  
 2. acute/  
 3. pungent/  
 4. hooked/
- #581. Spikelets <rhachilla persistence - if spikelets break up>/  
 1. rhachilla deciduous <excepting glumes & sterile florets> <implicit>/  
 2. rhachilla persistent <at least proximally, until lemmas have been shed>/
- #582. Spikelets disarticulating <where - if rhachilla deciduous>/  
 1. below each fertile floret <or below sterile if attached>/  
 2. between fertile florets but the lowest falling with glumes attached/  
 3. between fertile florets but the distal falling as a whole/  
 4. below groups of fertile florets/  
 5. above glumes but not between florets <when 2 or more fertile>/
- #583. Spikelets <palea retention on persistent rhachilla>/  
 1. retaining paleas/  
 2. shedding paleas/
- #584. Spikelets <extent of rhachilla toughness>/  
 1. tough throughout <implicit>/  
 2. fragile above/  
 3. becoming fragile after lemmas shed/
- #585. Spikelets with the distal <fertile> florets <where disarticulating - if rhachilla partially tough>/  
 1. disarticulating separately/  
 2. disarticulating into irregular segments/  
 3. falling as a whole/
- #586. Spikelet callus <shape> <ordered>/  
 1. brief <implicit>/  
 2. square <as long as wide>/  
 3. oblong/  
 4. cuneate/  
 5. linear/  
 6. globular/  
 7. toroidal/
- #587. Spikelet callus <curvature>/  
 1. straight/  
 2. curved/
- #588. Spikelet callus <whether adnate to glume>/  
 1. free from lower glume <implicit>/  
 2. incorporating lowest rhachilla internode with adnate lower glume/  
 3. supplemented by thickened base of upper glume/
- #589. Spikelet callus <length>/  
 mm long/
- #590. Spikelet callus <indumentum> <ordered>/  
 1. glabrous/  
 2. pubescent/

- 3. pilose/
- 4. bearded/
- #591. Spikelet callus hairy <where>/
  - 1. throughout/
  - 2. above/
  - 3. below/
  - 4. on the sides/
- #592. Spikelet callus base <shape>/
  - 1. truncate/
  - 2. obtuse/
  - 3. acute/
  - 4. pungent/
  - 5. 2-toothed/
- #593. Spikelet callus <presence of central peg - if truncate>/
  - 1. simple <implicit>/
  - 2. with central boss/
  - 3. with central peg/
- #594. Spikelet callus <angle of attachment>/
  - 1. attached transversely/
  - 2. attached obliquely/
  - 3. inserted/
- #595. Spikelet callus with <shape of scar>/
  - 1. circular scar/
  - 2. elliptic scar/
  - 3. linear scar/
- #596. Spikelet callus hairs <colour>/
  - 1. white/
  - 2. grey/
  - 3. yellow/
  - 4. tawny/
  - 5. dark brown/
  - 6. red/
  - 7. purple/
- #597. Spikelet callus hairs <length>/
  - mm long/
- #598. Spikelet callus hairs <length as fraction of spikelet>/
  - length of spikelet/
- #599. Rhachilla internodes <elongation between glumes and lowest fertile floret>/
  - 1. brief up to lowest fertile floret <implicit>/
  - 2. elongated between glumes/
  - 3. elongated below <proximal> basal sterile floret/
  - 4. elongated between basal sterile florets <when more than 1>/
  - 5. elongated below proximal fertile floret/
- #600. Rhachilla elongation <thickness>/
  - 1. stout/
  - 2. slender/
  - 3. sinuous but straightening at maturity to extrude floret/
- #601. Rhachilla elongation <length>/
  - mm long/
- #602. Rhachilla elongation <indumentum>/
  - 1. glabrous <implicit>/
  - 2. scabrous/
  - 3. pubescent/
  - 4. pilose/
- #603. Rhachilla internodes <presence between fertile florets - if more than 1>/
  - 1. suppressed between <fertile> florets <these arising at about the same level>/
  - 2. definite <between fertile florets. Subsequent characters refer to these internodes; for sterile terminal segments see rhachilla extension> <implicit>/
- #604. Rhachilla internodes <transverse section>/
  - 1. terete/

- 2. angular/
- 3. compressed/
- 4. flattened/
- #605. Rhachilla internodes <thickening>/
  - 1. narrow <implicit>/
  - 2. clavate/
  - 3. thickened/
  - 4. spongy and fused to embedded lemmas/
- #606. Rhachilla internodes <alignment>/
  - 1. straight <implicit>/
  - 2. curved/
  - 3. zig-zag/
  - 4. springy and forming a hair trap/
- #607. Rhachilla internodes <length>/
  - mm long/
- #608. Rhachilla internodes <visibility>/
  - 1. obscured by lemmas/
  - 2. eventually visible <entirely or partly> between lemmas/
- #609. Rhachilla internodes <surface roughness>/
  - 1. smooth/
  - 2. scaberulous/
- #610. Rhachilla internodes <indumentum> <ordered>/
  - 1. glabrous <implicit>/
  - 2. sparsely hairy/
  - 3. pubescent/
  - 4. pilose/
  - 5. villous/
- #611. Rhachilla internodes hairy <extent>/
  - 1. all along <implicit>/
  - 2. all along but hairs longer above/
  - 3. at tip <only>/
  - 4. above/
  - 5. below/
- #612. Rhachilla internodes with <hair length>/
  - mm long hairs/
- #613. Floret callus <presence: a callus forms the foot of a deciduous floret (or of sterile florets if attached); the rhachilla internode, which falls with and alongside the floret, may be evident or obsolete>/
  - 1. brief <implicit>/
  - 2. evident <not much longer than wide>/
  - 3. elongated/
- #614. Floret callus <curvature>/
  - 1. straight <implicit>/
  - 2. curved/
- #615. Floret callus <length>/
  - mm long/
- #616. Floret callus <presence of wings>/
  - 1. without wings <implicit>/
  - 2. winged <or scarred>/
  - 3. subtended by a fleshy frill/
- #617. Floret callus with <type of wings>/
  - 1. apical wings adnate to lemma/
  - 2. apical wings shrivelled to concave scars <in dried state>/
  - 3. apical wings reduced to convex swellings/
  - 4. free apical wings/
  - 5. lateral wings/
- #618. Floret callus with this appendage <length of wings or frill>/
  - mm long/
- #619. Floret callus <indumentum>/
  - 1. glabrous/
  - 2. sparsely hairy/

- 3. pubescent/
- 4. pilose/
- 5. bearded/
- 6. woolly/
- #620. Floret callus hairy <where>/
  - 1. on the surface/
  - 2. on the margins <dorsally subglabrous>/
  - 3. in a ring above/
  - 4. in a ring below/
  - 5. in rings above and below/
  - 6. in 1 tuft/
  - 7. in 2 tufts/
  - 8. in 4 tufts/
- #621. Floret callus with <longer hairs where>/
  - 1. subequal hairs/
  - 2. longer hairs above/
  - 3. longer hairs below/
  - 4. longer hairs above and below/
- #622. Floret callus <shape of base>/
  - 1. truncate <or emarginate; not expanded>/
  - 2. obtuse <implicit>/
  - 3. acute/
  - 4. pungent/
  - 5. unequally 2-toothed <pungent tooth with lateral spur>/
  - 6. 2-toothed/
  - 7. expanded/
- #623. Floret callus <disarticulation>/
  - 1. disarticulating transversely/
  - 2. disarticulating obliquely/
  - 3. fracturing irregularly/
- #624. Floret callus with <shape of scar>/
  - 1. circular scar/
  - 2. elliptic scar/
  - 3. linear scar/
- #625. Floret callus hairs <length>/
  - mm long/
- #626. Floret callus hairs <length as fraction of lemma>/
  - length of lemma/
- #627. Glumes <presence>/
  - 1. both absent or obscure/
  - 2. one the lower absent or obscure/
  - 3. one the upper absent or obscure/
  - 4. one to two the lower present in some spikelets <often the sessile of a pair>/
  - 5. two <implicit>/
  - 6. several <more than 2, or indefinite number in bamboos>/
- #628. Glumes comprising <number of gemmiferous bracts between distal prophyll and empty glumes>/
  - gemmiferous bracts/
- #629. Glumes <number>/
  - empty glumes/
- #630. Glumes <whether lateral>/
  - 1. distichous <implicit>/
  - 2. lateral <opposite, but rotated with respect to lemma>/
  - 3. oblique <not strictly opposite>/
  - 4. collateral <side by side>/
  - 5. whorled/
- #631. Glumes <union>/
  - 1. free <implicit>/
  - 2. connate along margins below/
- #632. Glumes <fraction connate>/
  - of their length connate/

- #633. Glumes <persistence - if spikelets break up>/  
 1. persistent <on branch>/  
 2. lower persistent, upper deciduous/  
 3. lower deciduous, upper persistent/  
 4. <both> deciduous/  
 5. deciduous <together> with pedicel attached/
- #634. Glumes <similarity, apart from some difference in size>/  
 1. similar <in shape, texture, etc>/  
 2. dissimilar/
- #635. Glumes <relative width>/  
 1. with lower narrower than upper/  
 2. subequal in width/  
 3. with lower wider than upper/
- #636. Glumes <length of longer relative to rest of spikelet, excluding awns>/  
 1. shorter than spikelet/  
 2. reaching apex of florets/  
 3. exceeding apex of florets/
- #637. Glumes <consistency relative to fertile lemma>/  
 1. thinner than fertile lemma/  
 2. similar to fertile lemma in texture <implicit>/  
 3. firmer than fertile lemma/
- #638. Glumes <sheen>/  
 1. dull <implicit>/  
 2. shiny/
- #639. Glumes <divergence>/  
 1. incurved at apex/  
 2. parallel to lemmas <implicit>/  
 3. recurved at apex/  
 4. gaping/
- #640. Lower glume <outline> <ordered>/  
 1. subulate <or bristle-like, with indefinite or briefly triangular body - apical characters inapplicable except for incision>/  
 2. linear/  
 3. lanceolate/  
 4. elliptic/  
 5. oblong/  
 6. ovate/  
 7. orbicular/  
 8. oblate/  
 9. obovate/  
 10. flabellate/  
 11. cuneate/
- #641. Lower glume <symmetry>/  
 1. symmetrical/  
 2. asymmetrical/
- #642. Lower glume <clasping>/  
 1. not clasping/  
 2. clasping <base of spikelet to form a collar - mainly Paniceae>/  
 3. auriculate at base/
- #643. Lower glume <gibbosity>/  
 1. not gibbous <implicit>/  
 2. gibbous/  
 3. saccate/
- #644. Lower glume <length>/  
 mm long/
- #645. Lower glume <length as fraction of upper>/  
 length of upper glume/
- #646. Lower glume <length as fraction of spikelet (mainly Paniceae)>/  
 length of spikelet/
- #647. Lower glume <consistency>/

1. hyaline/
  2. membranous/
  3. chartaceous/
  4. herbaceous/
  5. scarious/
  6. cartilaginous/
  7. coriaceous/
  8. indurate/
- #648. Lower glume <apical consistency>/
1. of similar consistency above <implicit>/
  2. much thinner above/
  3. firmer above/
- #649. Lower glume <marginal consistency>/
1. of similar consistency on margins <implicit>/
  2. much thinner on margins/
  3. firmer on margins/
- #650. Lower glume <colour>/
1. pallid/
  2. yellow/
  3. light green/
  4. mid-green/
  5. dark green/
  6. glaucous/
  7. grey/
  8. light brown/
  9. dark brown/
  10. red/
  11. purple/
  12. black/
- #651. Lower glume <presence of sessile glands>/
1. eglandular/
  2. glandular/
- #652. Lower glume <exudate>/
1. without exudate <implicit>/
  2. viscid/
  3. resinous/
- #653. Lower glume <oil streaks>/
1. without oil streaks <implicit>/
  2. with oil streaks/
- #654. Lower glume <presence of keels>/
1. without keels/
  2. 1-keeled/
  3. 2-keeled <or inflexed>/
- #655. Lower glume keel-less <extent>/
1. throughout/
  2. except near apex/
- #656. Lower glume keeled <extent>/
1. all along <implicit>/
  2. above/
  3. below/
- #657. Lower glume keeled <position - if 2-keeled>/
1. dorsally/
  2. dorsally below, flaring to lateral above/
  3. laterally/
  4. frontally/
- #658. Lower glume keeled <distinctness>/
1. sharply <implicit>/
  2. obtusely <with abrupt flexion rather than sharp keel>/
- #659. Lower glume <presence of wings>/
1. wingless <implicit>/

- 2. winged on keel/
- 3. winged on margins/
- #660. Lower glume winged <width>/
  - 1. broadly/
  - 2. moderately <implicit>/
  - 3. narrowly/
- #661. Lower glume winged <extent>/
  - 1. all along/
  - 2. near apex/
  - 3. above/
  - 4. in the middle/
  - 5. below/
- #662. Lower glume <vein number>/
  - veined/
- #663. Lower glume primary vein <extension to apex>/
  - 1. extending to apex/
  - 2. falling short of apex/
- #664. Lower glume primary vein <midvein or keels - roughness. Knobs and spines on 2-keeled glumes are treated as surface(flank) roughness> <ordered>/
  - 1. smooth/
  - 2. scaberulous/
  - 3. scabrous/
  - 4. spinulose/
  - 5. tuberculate/
  - 6. with pectinate knobs/
- #665. Lower glume primary vein <presence of hairs(except tufts) or spines>/
  - 1. eciliate <implicit>/
  - 2. ciliolate/
  - 3. ciliate/
  - 4. pectinately ciliate <stiff and evenly spaced>/
  - 5. pectinately spinose/
  - 6. pubescent <when different from surface>/
- #666. Lower glume lateral veins <clarity>/
  - 1. absent/
  - 2. obscure/
  - 3. distinct <implicit>/
  - 4. prominent/
  - 5. <equally> thickened/
  - 6. unequally thickened/
- #667. Lower glume lateral veins <presence of ribs>/
  - 1. without ribs <implicit>/
  - 2. ribbed/
- #668. Lower glume lateral veins <presence of cross-veins or branching>/
  - 1. without connecting veins/
  - 2. transversely connected at apex <only>/
  - 3. with cross-veins/
  - 4. <dichotomously> branching above/
- #669. Lower glume lateral veins <divergence>/
  - 1. meeting <and uniting> at apex/
  - 2. convergent at apex/
  - 3. parallel at apex/
  - 4. divergent at apex/
- #670. Lower glume lateral veins <extension to apex>/
  - 1. excurrent/
  - 2. all extending to apex/
  - 3. with some <but not all> extending to apex/
  - 4. all falling short of apex/
- #671. Lower glume lateral veins <presence in keel>/
  - 1. dissociated from keel <keel 1-veined> <implicit>/
  - 2. several in each keel/

- #672. Lower glume intercarinal veins <presence - if 2-keeled>/  
 1. absent/  
 2. obscure/  
 3. distinct/  
 4. absent below, prominent above/
- #673. Lower glume intercarinal veins <number>/  
 in number/
- #674. Lower glume surface <depression in transverse section>/  
 1. convex <implicit>/  
 2. flat/  
 3. concave/  
 4. with V-shaped depression <between keels>/  
 5. with a longitudinal median groove/  
 6. grooved on either side of midvein/  
 7. deeply depressed <between keels>/
- #675. Lower glume surface impressed <extent of flattening or depression>/  
 1. throughout <implicit>/  
 2. above/  
 3. below/  
 4. with a boss blocking lower end/
- #676. Lower glume surface <relief> <ordered>/  
 1. smooth <implicit>/  
 2. asperulous/  
 3. scabrous/  
 4. spinose/  
 5. with hooked spines/  
 6. tuberculate/  
 7. wrinkled/  
 8. muricate <pattern of knobs>/  
 9. rugose/  
 10. cancellate <latticed pattern>/  
 11. areolate <pattern of depressions>/
- #677. Lower glume surface rough <where, excluding keels>/  
 1. generally <implicit>/  
 2. at apex/  
 3. above/  
 4. in the middle/  
 5. below/  
 6. on flanks <only>/  
 7. on veins/  
 8. between veins/  
 9. in lines <unrelated to veins>/  
 10. in transverse rows/
- #678. Lower glume surface <presence of waist>/  
 1. not waisted <implicit>/  
 2. laterally waisted/  
 3. transversely waisted <extending across back>/
- #679. Lower glume surface <presence of pits>/  
 1. without pits <implicit>/  
 2. pitted/  
 3. lacunose/  
 4. fenestrate/
- #680. Lower glume surface <general indumentum> <ordered>/  
 1. glabrous <except for keel, margin & special indumentum> <implicit>/  
 2. puberulous/  
 3. pubescent/  
 4. pilose/  
 5. hirsute/  
 6. villous/  
 7. hispidulous/

- 8. hispid/
- 9. setose/
- 10. woolly/
- #681. Lower glume surface hairy <where>/
  - 1. generally <implicit>/
  - 2. at apex/
  - 3. above/
  - 4. in the middle/
  - 5. below/
  - 6. at base/
  - 7. on veins/
  - 8. between veins/
  - 9. in lines <unrelated to veins>/
- #682. Lower glume surface with <hair type>/
  - 1. simple hairs <implicit>/
  - 2. tubercle-based hairs/
  - 3. hooked hairs/
  - 4. capitate hairs/
  - 5. clavate hairs/
  - 6. turgid hairs/
- #683. Lower glume surface <special indumentum - tufts>/
  - 1. without hair tufts <implicit>/
  - 2. with basal tufts of hair/
  - 3. with marginal tufts of hair/
  - 4. with a dorsal tuft of hair/
  - 5. with tufts of hair along primary vein/
  - 6. with transverse tufts of hair/
  - 7. with a transverse fringe of hair/
  - 8. with an apical beard/
- #684. Lower glume inner surface <indumentum>/
  - 1. glabrous/
  - 2. scabrous/
  - 3. pubescent/
  - 4. pilose/
  - 5. villous/
- #685. Lower glume margins <inrolled>/
  - 1. flat/
  - 2. inrolled/
- #686. Lower glume margins <hairiness>/
  - 1. eciliate <implicit>/
  - 2. ciliolate/
  - 3. ciliate/
  - 4. tuberculately ciliate/
  - 5. setose/
- #687. Lower glume hairs <colour of principal hairs>/
  - 1. white/
  - 2. grey/
  - 3. yellow/
  - 4. tawny/
  - 5. dark brown/
  - 6. red/
  - 7. purple/
  - 8. black/
- #688. Lower glume hairs <length of principal hairs>/
  - mm long/
- #689. Lower glume apex <incision>/
  - 1. entire <implicit>/
  - 2. erose/
  - 3. with a unilateral tooth/
  - 4. dentate/

5. lobed/  
 #690. Lower glume apex <number of teeth or lobes>/  
 -fid/  
 #691. Lower glume apex <shape of apex or tip of lobes> <ordered>/  
 1. emarginate/  
 2. truncate/  
 3. obtuse/  
 4. acute/  
 5. acuminate/  
 6. attenuate/  
 7. setaceously acuminate/  
 8. cuspidate/  
 9. rostrate/  
 10. caudate/  
 11. laterally pinched <compressed>/  
 #692. Lower glume apex <presence of awn>/  
 1. muticous <implicit>/  
 2. mucronate/  
 3. awned/  
 4. awned only on distal spikelets/  
 #693. Lower glume apex <no. of awns>/  
 -awned/  
 #694. Lower glume awn <position>/  
 1. terminal <from apex or sinus> <implicit>/  
 2. subapical/  
 3. dorsal/  
 #695. Lower glume awn <length>/  
 mm long/  
 #696. Lower glume awn <whether hooked>/  
 1. straight <implicit>/  
 2. hooked/  
 #697. Lower glume awn <vesture>/  
 1. without vesture <implicit>/  
 2. viscid/  
 3. ciliolate/  
 4. ciliate/  
 #698. Upper glume <outline - of uppermost if more than 2> <ordered>/  
 1. subulate <or bristle-like with indefinite or briefly triangular body - apical characters inapplicable except for incision>/  
 2. linear/  
 3. lanceolate/  
 4. elliptic/  
 5. oblong/  
 6. ovate/  
 7. orbicular/  
 8. oblate/  
 9. obovate/  
 10. flabellate/  
 11. cuneate/  
 #699. Upper glume <symmetry>/  
 1. symmetrical/  
 2. asymmetrical/  
 #700. Upper glume <presence of basal auricles>/  
 1. without auricles <implicit>/  
 2. auriculate at base/  
 #701. Upper glume dorsally <straightness of back in profile>/  
 1. convex in profile/  
 2. straight in profile/  
 3. concave in profile/  
 #702. Upper glume <gibbosity>/

1. not gibbous <implicit>/
  2. gibbous/
  3. saccate/
  4. spurred/
  5. waisted/
- #703. Upper glume <length>/  
mm long/
- #704. Upper glume <length as fraction of lemma>/  
length of adjacent fertile lemma/
- #705. Upper glume <length as fraction of spikelet>/  
length of spikelet/
- #706. Upper glume <width relative to fertile lemma>/
1. narrower than lemma/
  2. as wide as lemma/
  3. wider than lemma/
- #707. Upper glume <consistency>/
1. hyaline/
  2. membranous/
  3. chartaceous/
  4. herbaceous/
  5. scarious/
  6. cartilaginous/
  7. coriaceous/
  8. indurate/
- #708. Upper glume <apical consistency>/
1. of similar consistency above <implicit>/
  2. much thinner above/
  3. firmer above/
- #709. Upper glume with <marginal consistency>/
1. undifferentiated margins <implicit>/
  2. hyaline margins/
  3. membranous margins/
  4. chartaceous margins/
  5. scarious margins/
  6. cartilaginous margins/
- #710. Upper glume <fenestration>/
1. not thinner in the body <implicit>/
  2. thinner along midline/
- #711. Upper glume <colour>/
1. pallid/
  2. yellow/
  3. light green/
  4. mid-green/
  5. dark green/
  6. glaucous/
  7. grey/
  8. light brown/
  9. dark brown/
  10. red/
  11. purple/
  12. black/
- #712. Upper glume <presence of sessile glands>/
1. eglandular/
  2. glandular/
- #713. Upper glume <exudate>/
1. without exudate <implicit>/
  2. viscid/
  3. resinous/
- #714. Upper glume <keels>/
1. without keels/

- 2. 1-keeled/
- 3. 2-keeled/
- #715. Upper glume keel-less <extent>/
  - 1. throughout/
  - 2. except near apex/
- #716. Upper glume keeled <extent>/
  - 1. all along <implicit>/
  - 2. above/
  - 3. below/
- #717. Upper glume <presence of wings>/
  - 1. wingless <implicit>/
  - 2. winged on keel/
  - 3. winged on margins/
- #718. Upper glume winged <extent>/
  - 1. all along/
  - 2. near apex/
  - 3. above/
  - 4. in the middle/
  - 5. below/
- #719. Upper glume <vein number>/
  - veined/
- #720. Upper glume primary vein <clarity of mid or keel veins>/
  - 1. absent/
  - 2. obscure/
  - 3. distinct <implicit>/
  - 4. conspicuous/
  - 5. thickened/
- #721. Upper glume primary vein <depression>/
  - 1. not depressed <implicit>/
  - 2. depressed/
  - 3. grooved on either side/
- #722. Upper glume primary vein <roughness> <ordered>/
  - 1. smooth/
  - 2. scaberulous/
  - 3. scabrous/
  - 4. spinulose/
  - 5. tuberculate/
  - 6. with pectinate knobs/
- #723. Upper glume primary vein <presence of hairs(except tufts) or spines>/
  - 1. eciliate <implicit>/
  - 2. ciliolate/
  - 3. ciliate/
  - 4. pectinately ciliate <stiff and evenly spaced>/
  - 5. pectinately spinose/
  - 6. pubescent <when different from surface>/
- #724. Upper glume lateral veins <clarity>/
  - 1. absent/
  - 2. obscure/
  - 3. distinct <implicit>/
  - 4. prominent/
  - 5. <equally> thickened/
  - 6. unequally thickened/
- #725. Upper glume lateral veins <presence of ribs>/
  - 1. without ribs <implicit>/
  - 2. ribbed/
- #726. Upper glume lateral veins <presence of cross-veins>/
  - 1. without cross-veins <implicit>/
  - 2. transversely connected at apex <only>/
  - 3. with cross-veins/
- #727. Upper glume lateral veins <divergence - mainly Triticeae>/

1. meeting <and uniting> at apex/
  2. convergent at apex/
  3. parallel at apex/
  4. divergent at apex/
- #728. Upper glume lateral veins <extension to apex>/
1. excurrent/
  2. all extending to apex/
  3. with some <but not all> extending to apex/
  4. all falling short of apex/
- #729. Upper glume surface <roughness> <ordered>/
1. smooth <implicit>/
  2. asperulous/
  3. scabrous/
  4. spinose/
  5. with hooked spines/
  6. papillose/
  7. tuberculate/
  8. wrinkled/
  9. rugose/
- #730. Upper glume surface rough <where>/
1. generally <implicit>/
  2. at apex/
  3. above/
  4. in the middle/
  5. below/
  6. on veins/
  7. between veins/
  8. in lines <unrelated to veins>/
- #731. Upper glume surface <general indumentum> <ordered>/
1. glabrous <except for keel, margins & special indumentum> <implicit>/
  2. puberulous/
  3. pubescent/
  4. pilose/
  5. hirsute/
  6. villous/
  7. hispidulous/
  8. hispid/
  9. setose/
  10. woolly/
- #732. Upper glume surface hairy <where>/
1. generally <implicit>/
  2. at apex/
  3. above/
  4. in the middle/
  5. below/
  6. at base/
  7. on veins/
  8. between veins/
  9. in lines <unrelated to veins>/
- #733. Upper glume surface with <hair type>/
1. simple hairs <implicit>/
  2. tubercle-based hairs/
  3. hooked hairs/
  4. capitate hairs/
  5. clavate hairs/
  6. turgid hairs/
  7. verruculose hairs/
- #734. Upper glume surface <special indumentum - tufts>/
1. without hair tufts <implicit>/
  2. with basal tufts of hair/

3. with marginal tufts of hair/
  4. with a dorsal tuft of hair/
  5. with tufts of hair along primary vein/
  6. with transverse tufts of hair/
  7. with a transverse fringe of hair/
  8. with an apical beard/
- #735. Upper glume inner surface <indumentum>/
1. glabrous/
  2. scabrous/
  3. pubescent/
  4. pilose/
  5. villous/
- #736. Upper glume margins <roughness>/
1. smooth/
  2. scaberulous/
  3. scabrous/
  4. spinulose/
  5. tuberculate/
- #737. Upper glume margins <hairiness>/
1. eciliate <implicit>/
  2. ciliolate/
  3. ciliate/
  4. villous/
  5. setose/
  6. pubescent/
- #738. Upper glume hairs <colour of principal hairs>/
1. white/
  2. grey/
  3. yellow/
  4. tawny/
  5. dark brown/
  6. red/
  7. purple/
  8. black/
- #739. Upper glume hairs <length of principal hairs>/  
mm long/
- #740. Upper glume apex <incision>/
1. entire <implicit>/
  2. erose/
  3. with a unilateral tooth/
  4. dentate/
  5. lobed/
- #741. Upper glume apex <number of teeth or lobes>/  
-fid/
- #742. Upper glume apex <shape of apex or tip of lobes> <ordered>/
1. emarginate/
  2. truncate/
  3. obtuse/
  4. acute/
  5. acuminate/
  6. attenuate/
  7. setaceously acuminate/
  8. cuspidate/
  9. rostrate/
  10. caudate/
  11. laterally pinched <compressed>/
- #743. Upper glume <presence of awns>/
1. muticous <implicit>/
  2. mucronate/
  3. awned/

- 4. awned only on distal spikelets/
- #744. Upper glume <no. of awns>/
  - awned/
- #745. Upper glume awn <position>/
  - 1. terminal <from apex or sinus> <implicit>/
  - 2. subapical/
  - 3. dorsal/
  - 4. oblique/
- #746. Upper glume awn <length>/
  - mm long/
- #747. Upper glume awn <presence of hairs>/
  - 1. glabrous/
  - 2. hispidulous/
  - 3. ciliate/
  - 4. plumose/
- #748. Basal sterile florets <presence, including vestiges - controlling character for dependencies>/
  - 1. absent <implicit>/
  - 2. 1/
  - 3. 2 or more/
- #749. Basal sterile florets <similarity if more than 1>/
  - 1. similar/
  - 2. dissimilar/
- #750. Basal sterile florets <reduction to vestiges>/
  - 1. developed <implicit>/
  - 2. with vestigial lower floret/
  - 3. both vestigial/
- #751. Basal sterile florets <sex>/
  - 1. male/
  - 2. barren/
- #752. Basal sterile florets <presence of palea>/
  - 1. with palea/
  - 2. without significant palea <may be rudimentary; lemma present>/
- #753. Basal sterile florets <persistence - if spikelet breaks up>/
  - 1. persisting on inflorescence/
  - 2. separately deciduous/
  - 3. attached to and deciduous with the fertile/
- #754. Lemma of lower sterile floret <presence>/
  - 1. present <implicit>/
  - 2. absent <the floret represented by a palea>/
- #755. Lemma of lower sterile floret <comparison with other scales>/
  - 1. unlike other scales <implicit>/
  - 2. similar to upper glume/
  - 3. similar to fertile lemma/
- #756. Lemma of lower sterile floret <outline> <ordered>/
  - 1. subulate <apical characters inapplicable>/
  - 2. linear/
  - 3. lanceolate/
  - 4. elliptic/
  - 5. oblong/
  - 6. ovate/
  - 7. orbicular/
  - 8. oblate/
  - 9. trullate/
  - 10. obovate/
- #757. Lemma of lower sterile floret <presence of basal auricles>/
  - 1. without auricles <implicit>/
  - 2. auriculate at base/
- #758. Lemma of lower sterile floret <gibbosity>/
  - 1. not gibbous <implicit>/
  - 2. gibbous/

- #759. Lemma of lower sterile floret <length>/  
mm long/
- #760. Lemma of lower sterile floret <length as fraction of fertile lemma>/  
length of fertile lemma/
- #761. Lemma of lower sterile floret <length as fraction of spikelet>/  
length of spikelet/
- #762. Lemma of lower sterile floret <consistency>/  
1. hyaline/  
2. membranous/  
3. chartaceous/  
4. herbaceous/  
5. scarious/  
6. cartilaginous/  
7. coriaceous/  
8. indurate/  
9. fleshy/
- #763. Lemma of lower sterile floret <apical consistency>/  
1. of similar consistency above <implicit>/  
2. much thinner above/  
3. firmer above/
- #764. Lemma of lower sterile floret <marginal consistency>/  
1. of similar consistency on margins <implicit>/  
2. much thinner on margins/  
3. thicker on margins/
- #765. Lemma of lower sterile floret <fenestration>/  
1. not thinner in the body <implicit>/  
2. thinner along midline/  
3. hyaline between veins/  
4. fenestrate <with hyaline patches>/
- #766. Lemma of lower sterile floret <colour>/  
1. pallid/  
2. yellow/  
3. light green/  
4. mid-green/  
5. dark green/  
6. glaucous/  
7. grey/  
8. light brown/  
9. dark brown/  
10. red/  
11. purple/  
12. black/
- #767. Lemma of lower sterile floret <presence of sessile glands>/  
1. eglandular <implicit>/  
2. glandular/
- #768. Lemma of lower sterile floret <presence of keels>/  
1. without keels <implicit>/  
2. 1-keeled/  
3. 2-keeled/
- #769. Lemma of lower sterile floret <presence of wings>/  
1. wingless <implicit>/  
2. winged on keel/  
3. winged on margins/
- #770. Lemma of lower sterile floret <number of veins>/  
-veined/
- #771. Lemma of lower sterile floret <clarity of midvein>/  
1. without midvein/  
2. with obscure midvein/  
3. with evident midvein/  
4. with conspicuous midvein/

- #772. Lemma of lower sterile floret <clarity of lateral veins>/
1. without lateral veins/
  2. obscurely veined/
  3. distinctly veined <implicit>/
  4. prominently veined/
  5. with thickened veins/
- #773. Lemma of lower sterile floret <presence of ribs>/
1. without ribs <implicit>/
  2. ribbed/
- #774. Lemma of lower sterile floret <vein spacing>/
1. with equidistant veins/
  2. with unevenly spaced veins/
- #775. Lemma of lower sterile floret <presence of cross-veins>/
1. without cross-veins <implicit>/
  2. with veins transversely connected at apex <only>/
  3. with cross-veins/
- #776. Lemma of lower sterile floret <apical union of veins>/
1. with veins free at apex/
  2. with veins meeting and uniting at apex/
- #777. Lemma of lower sterile floret <transverse curvature>/
1. convex across back/
  2. flat across back/
  3. concave across back/
- #778. Lemma of lower sterile floret <presence of median groove or split>/
1. without grooves <implicit>/
  2. sulcate/
  3. with 2 longitudinal grooves/
  4. readily splitting into two halves/
- #779. Lemma of lower sterile floret <roughness> <ordered>/
1. smooth <implicit>/
  2. scaberulous/
  3. scabrous/
  4. spinulose/
  5. papillose/
  6. tuberculate/
  7. wrinkled/
  8. rugose/
- #780. Lemma of lower sterile floret rough <where>/
1. throughout <implicit>/
  2. at apex/
  3. above/
  4. in the middle/
  5. below/
  6. on midvein/
  7. on <lateral> veins/
  8. on flanks/
- #781. Lemma of lower sterile floret <general indumentum> <ordered>/
1. glabrous <except for midvein, margins & special indumentum> <implicit>/
  2. puberulous/
  3. pubescent/
  4. pilose/
  5. hirsute/
  6. villous/
  7. hispidulous/
  8. hispid/
  9. setose/
  10. woolly/
- #782. Lemma of lower sterile floret hairy <extent of general indumentum>/
1. all along <implicit>/
  2. at apex/

3. above/
  4. in the middle/
  5. below/
  6. at base/
- #783. Lemma of lower sterile floret hairy <location of general indumentum>/
1. generally <implicit>/
  2. on veins/
  3. between veins/
  4. between veins but central interspaces glabrous/
  5. in lines <unrelated to veins>/
- #784. Lemma of lower sterile floret with <hair type>/
1. simple hairs <implicit>/
  2. tubercle-based hairs/
  3. reflexed hairs/
  4. hooked hairs/
  5. capitate hairs/
  6. clavate hairs/
  7. turgid hairs/
  8. verruculose hairs/
- #785. Lemma of lower sterile floret <special indumentum - tufts>/
1. without hair tufts <implicit>/
  2. with basal tufts of hair/
  3. with marginal tufts of hair/
  4. with <transverse> dorsal tufts of hair/
  5. with a transverse fringe of hair/
  6. with conspicuous apical hairs/
- #786. Lemma of lower sterile floret <number of hair tufts>/  
hair tufts in all/
- #787. Lemma of lower sterile floret <midvein hairs>/
1. eciliate on midvein <not distinct from general indumentum> <implicit>/
  2. ciliolate on midvein/
  3. ciliate on midvein/
  4. setose on midvein/
  5. pubescent on midvein/
- #788. Lemma of lower sterile floret <marginal roughness>/
1. smooth on margins/
  2. scaberulous on margins/
  3. scabrous on margins/
  4. spinulose on margins/
  5. tuberculate on margins/
- #789. Lemma of lower sterile floret <marginal hairs>/
1. eciliate on margins <implicit>/
  2. ciliolate on margins/
  3. ciliate on margins/
  4. villous on margins/
  5. setose on margins/
  6. pubescent on margins/
- #790. Lemma of lower sterile floret fringed <extent of marginal hairs>/
1. all along/
  2. above/
  3. in the middle/
  4. below/
- #791. Lemma of lower sterile floret bearing <colour of principal hairs>/
1. white hairs/
  2. grey hairs/
  3. yellow hairs/
  4. tawny hairs/
  5. dark brown hairs/
  6. red hairs/
  7. purple hairs/

8. black hairs/  
 #792. Lemma of lower sterile floret bearing hairs <length of principal hairs>/  
 mm long/  
 #793. Lemma of lower sterile floret <incision>/  
 1. entire <implicit>/  
 2. erose/  
 3. dentate/  
 4. lobed/  
 #794. Lemma of lower sterile floret <number of teeth or lobes>/  
 -fid/  
 #795. Lemma of lower sterile floret <shape of apex or lobes> <ordered>/  
 1. emarginate/  
 2. truncate/  
 3. obtuse/  
 4. acute/  
 5. acuminate/  
 6. attenuate/  
 7. setaceously acuminate/  
 8. cuspidate/  
 9. rostrate/  
 10. caudate/  
 11. laterally pinched at apex/  
 #796. Lemma of lower sterile floret <presence of awn>/  
 1. muticous <implicit>/  
 2. mucronate/  
 3. awned/  
 #797. Awn of lower sterile floret <origin>/  
 1. terminal <from apex or sinus> <implicit>/  
 2. subapical/  
 3. dorsal/  
 #798. Awn of lower sterile floret arising <origin of dorsal awn as fraction of lemma length>/  
 way up back of lemma/  
 #799. Awn of lower sterile floret <curvature>/  
 1. straight <implicit>/  
 2. curved/  
 3. flexuous/  
 4. geniculate/  
 #800. Awn of lower sterile floret <length>/  
 mm long/  
 #801. Palea of lower sterile floret <consistency>/  
 1. hyaline <implicit>/  
 2. membranous/  
 3. becoming indurate on keels at maturity/  
 4. becoming indurate on flanks at maturity/  
 5. woody/  
 #802. Palea of lower sterile floret <length>/  
 mm long/  
 #803. Palea of lower sterile floret <length as fraction of its lemma>/  
 length of lemma/  
 #804. Palea of lower sterile floret <presence of wings>/  
 1. wingless <implicit>/  
 2. winged on keels/  
 3. winged on margins/  
 #805. Palea of lower sterile floret <vesture>/  
 1. smooth/  
 2. scabrous/  
 3. pubescent/  
 4. pilose/  
 5. hirsute/  
 6. villous/

7. woolly/
- #806. Palea of lower sterile floret adorned <where>/
  1. on keels/
  2. on back/
  3. on flanks/
- #807. Lemma of upper sterile floret <outline>/
  1. subulate <apical characters inapplicable>/
  2. linear/
  3. lanceolate/
  4. elliptic/
  5. oblong/
  6. ovate/
  7. orbicular/
  8. oblate/
  9. obovate/
- #808. Lemma of upper sterile floret basally <presence of constriction or appendage>/
  1. simple <implicit>/
  2. constricted/
  3. auriculate/
- #809. Lemma of upper sterile floret <length>/
  - mm long/
- #810. Lemma of upper sterile floret <length as fraction of lower>/
  - length of lower sterile floret/
- #811. Lemma of upper sterile floret <consistency> <ordered>/
  1. hyaline/
  2. membranous/
  3. chartaceous/
  4. herbaceous/
  5. scarious/
  6. cartilaginous/
  7. coriaceous/
  8. indurate/
  9. fleshy/
- #812. Lemma of upper sterile floret <roughness>/
  1. smooth <implicit>/
  2. scabrous/
  3. tuberculate/
  4. ribbed/
  5. rugose throughout/
  6. rugose above/
  7. rugose below/
- #813. Lemma of upper sterile floret <surface indumentum>/
  1. glabrous <implicit>/
  2. pubescent/
  3. pilose/
  4. villous/
- #814. Lemma of upper sterile floret <midvein hairs>/
  1. eciliate on midvein <not distinct from general indumentum> <implicit>/
  2. pubescent on midvein/
  3. ciliolate on midvein/
  4. ciliate on midvein/
  5. setose on midvein/
- #815. Lemma of upper sterile floret <marginal hairs>/
  1. eciliate on margins <implicit>/
  2. ciliolate on margins/
  3. ciliate on margins/
  4. villous on margins/
  5. tufted on margins/
- #816. Lemma of upper sterile floret fringed <extent of marginal hairs>/
  1. all along/

- 2. above/
- 3. in the middle/
- 4. below/
- #817. Lemma of upper sterile floret <incision>/
  - 1. entire <implicit>/
  - 2. erose/
  - 3. dentate/
  - 4. lobed/
- #818. Lemma of upper sterile floret <number of teeth or lobes>/
  - fid/
- #819. Lemma of upper sterile floret <shape of apex> <ordered>/
  - 1. emarginate/
  - 2. truncate/
  - 3. obtuse/
  - 4. acute/
  - 5. acuminate/
  - 6. attenuate/
  - 7. setaceously acuminate/
  - 8. caudate/
- #820. Lemma of upper sterile floret <presence of awn>/
  - 1. muticous <implicit>/
  - 2. mucronate/
  - 3. awned/
- #821. Awn of upper sterile floret <position>/
  - 1. terminal <from apex or sinus> <implicit>/
  - 2. subapical/
  - 3. dorsal/
- #822. Awn of upper sterile floret arising <origin of dorsal awn as fraction of lemma length>/
  - way up back of lemma/
- #823. Awn of upper sterile floret <curvature>/
  - 1. straight/
  - 2. curved/
  - 3. flexuous/
  - 4. geniculate/
- #824. Awn of upper sterile floret <length>/
  - mm long/
- #825. Fertile florets <divergence if more than 1>/
  - 1. appressed to rhachilla/
  - 2. divergent/
- #826. Fertile florets overlapping <fraction overlapping in same row>/
  - their length/
- #827. Fertile florets <freedom of tip - if more than 1>/
  - 1. incurved at tip/
  - 2. imbricate to tip/
  - 3. free at tip/
  - 4. recurved at tip/
- #828. Fertile florets <size gradation - if more than 1>/
  - 1. decreasing in size upwards <implicit>/
  - 2. all similar in size/
  - 3. increasing in size upwards/
- #829. Fertile florets <sex>/
  - 1. bisexual <implicit>/
  - 2. female/
- #830. Fertile florets <similarity if more than 1>/
  - 1. all alike <implicit>/
  - 2. alike but female above/
  - 3. with the lowest dissimilar/
  - 4. with the uppermost dissimilar <if more than 2 florets - comment on difference>/
- #831. Lowest fertile lemma <sex - if dissimilar>/
  - 1. bisexual/

- 2. female/
- #832. Lowest fertile lemma <outline> <ordered>/
  - 1. linear/
  - 2. lanceolate/
  - 3. elliptic/
  - 4. oblong/
  - 5. ovate/
  - 6. orbicular/
  - 7. oblate/
  - 8. obovate/
  - 9. flabellate/
  - 10. cuneate/
- #833. Lowest fertile lemma <length>/
  - mm long/
- #834. Lowest fertile lemma <length as fraction of adjacent lemma>/
  - length of adjacent lemma/
- #835. Lowest fertile lemma <relative consistency>/
  - 1. of similar consistency to adjacent lemma <implicit>/
  - 2. thinner than adjacent lemma/
  - 3. firmer than adjacent lemma/
- #836. Lowest fertile lemma <indumentum>/
  - 1. glabrous/
  - 2. hairy/
- #837. Lowest fertile lemma <incision>/
  - 1. entire/
  - 2. lobed/
- #838. Lowest fertile lemma <presence of awn>/
  - 1. muticous/
  - 2. mucronate/
  - 3. awned/
- #839. Fertile lemma <presence>/
  - 1. present /
  - 2. absent/
- #840. Fertile lemma <flattened outline. If lemma absent go to palea> <ordered>/
  - 1. linear/
  - 2. lanceolate/
  - 3. elliptic/
  - 4. oblong/
  - 5. ovate/
  - 6. orbicular/
  - 7. oblate/
  - 8. trullate <margins angled rather than smoothly curved>/
  - 9. obovate/
  - 10. oblanceolate/
  - 11. flabellate/
  - 12. cuneate/
- #841. Fertile lemma <comparative width of outline>/
  - 1. narrowly proportioned/
  - 2. moderately proportioned <implicit>/
  - 3. broadly proportioned/
- #842. Fertile lemma widest at <position of widest point as fraction of length>/
  - of its length from base/
- #843. Fertile lemma <symmetry>/
  - 1. symmetrical/
  - 2. asymmetrical/
- #844. Fertile lemma <presence of basal auricles or thickening>/
  - 1. without auricles <implicit>/
  - 2. auriculate at base/
  - 3. thickened on margins at base/
- #845. Fertile lemma <compression>/

1. laterally compressed/
  2. subterete/
  3. dorsally compressed/
- #846. Fertile lemma dorsally <straightness of back in profile>/
1. convex along back/
  2. straight along back/
  3. concave along back/
- #847. Fertile lemma <gibbosity>/
1. not gibbous <implicit>/
  2. gibbous/
  3. lunate in profile/
- #848. Fertile lemma <unflattened shape>/
1. linear in profile/
  2. lanceolate in profile/
  3. elliptic in profile/
  4. oblong in profile/
  5. ovate in profile/
  6. oblanceolate in profile/
  7. triangular in profile/
  8. trapezoidal in profile/
  9. hemispherical/
  10. globose/
- #849. Fertile lemma <length>/
- mm long/
- #850. Fertile lemma <width>/
- mm wide/
- #851. Fertile lemma <consistency>/
1. hyaline/
  2. membranous/
  3. chartaceous/
  4. herbaceous/
  5. scarios/
  6. cartilaginous/
  7. coriaceous/
  8. indurate <crustaceous, bony or woody>/
- #852. Fertile lemma <apical consistency>/
1. of similar consistency above <implicit>/
  2. much thinner above/
  3. firmer above/
- #853. Fertile lemma <marginal consistency>/
1. of similar consistency on margins <implicit>/
  2. much thinner on margins/
  3. firmer on margins/
- #854. Fertile lemma <colour>/
1. pallid/
  2. yellow/
  3. light green/
  4. mid-green/
  5. dark green/
  6. glaucous/
  7. grey/
  8. light brown/
  9. dark brown/
  10. red/
  11. purple/
  12. black/
- #855. Fertile lemma <distribution of colour>/
1. concolorous/
  2. suffused with last colour/
  3. mottled with last colour/

- 4. streaked with last colour/
- 5. bordered with last colour/
- 6. tipped with last colour/
- #856. Fertile lemma <sheen>/
  - 1. dull <implicit>/
  - 2. shiny/
- #857. Fertile lemma <presence of sessile glands>/
  - 1. eglandular <implicit>/
  - 2. glandular on surface/
  - 3. glandular on veins/
- #858. Fertile lemma <exudate>/
  - 1. without exudate <implicit>/
  - 2. pruinose/
  - 3. viscid/
  - 4. resinous/
- #859. Fertile lemma <presence of keel>/
  - 1. without keel/
  - 2. keeled/
- #860. Fertile lemma rounded <extent>/
  - 1. throughout/
  - 2. except near apex/
- #861. Fertile lemma <clarity of keel>/
  - 1. lightly keeled/
  - 2. distinctly keeled <implicit>/
  - 3. the keel enlarged into a pocket around grain/
- #862. Fertile lemma keeled <extent>/
  - 1. all along <implicit>/
  - 2. above/
  - 3. below/
- #863. Fertile lemma <presence of wings>/
  - 1. wingless <implicit>/
  - 2. winged on keel/
  - 3. winged on margins/
- #864. Fertile lemma <vein number>/
  - veined/
- #865. Fertile lemma <key couplet for chloridoid veins>/
  - 1. 0-3 -veined/
  - 2. more than 3-veined/
- #866. Fertile lemma <presence of veins - controlling character for dependencies>/
  - 1. without veins/
  - 2. one-veined/
  - 3. several-veined <implicit>/
- #867. Lemma midvein <prominence>/
  - 1. simple/
  - 2. thickened <conspicuously>/
  - 3. with contiguous subsidiary veins/
- #868. Lemma midvein <extension to apex>/
  - 1. extending to apex/
  - 2. falling short of apex/
- #869. Lemma midvein <roughness, especially when keeled> <ordered>/
  - 1. without distinctive roughness <implicit>/
  - 2. scaberulous/
  - 3. scabrous/
  - 4. spinulose/
- #870. Lemma midvein <hairiness - except tufts> <ordered>/
  - 1. eciliate <not distinct from general indumentum> <implicit>/
  - 2. ciliolate/
  - 3. ciliate/
  - 4. pectinately ciliate <stiff and evenly spaced>/
  - 5. hispid/

- 6. setose/
- 7. pubescent/
- #871. Lemma midvein hairy <where>/
  - 1. all along <implicit>/
  - 2. above/
  - 3. in the middle/
  - 4. below/
  - 5. at base/
- #872. Lemma lateral veins <clarity>/
  - 1. obscure/
  - 2. with distinct primaries but obscure intermediates/
  - 3. distinct/
  - 4. prominent/
  - 5. thickened/
- #873. Lemma lateral veins <presence of ribs>/
  - 1. without ribs <implicit>/
  - 2. ribbed/
- #874. Lemma lateral veins <clarity in lower part>/
  - 1. absent or obscure below/
  - 2. evident below/
- #875. Lemma lateral veins <spacing if 3-veined>/
  - 1. midway between midvein and margin/
  - 2. close to midvein/
  - 3. close to margins/
- #876. Lemma lateral veins <spacing if 5 or more veined>/
  - 1. evenly spaced/
  - 2. unevenly spaced/
  - 3. in close groups/
- #877. Lemma lateral veins <presence of dichotomous branching>/
  - 1. unbranched <implicit>/
  - 2. branched/
  - 3. augmented by subsidiaries in lobes/
- #878. Lemma lateral veins <presence of cross-veins>/
  - 1. without cross-veins/
  - 2. transversely connected at apex <only>/
  - 3. with cross-veins/
- #879. Lemma lateral veins <convergence>/
  - 1. meeting <and uniting> above/
  - 2. convergent above/
  - 3. more or less parallel/
  - 4. divergent above/
- #880. Lemma lateral veins <apical extent - mainly Poeae>/
  - 1. excurrent/
  - 2. extending close to apex/
  - 3. stopping well short of apex <but present in upper third of lemma>/
  - 4. less than two thirds length of lemma/
- #881. Lemma surface <roughness> <ordered>/
  - 1. smooth <implicit>/
  - 2. granulose/
  - 3. asperulous/
  - 4. scaberulous/
  - 5. scabrous/
  - 6. papillose/
  - 7. tuberculate/
  - 8. striate/
  - 9. reticulate/
  - 10. punctate/
  - 11. pitted/
- #882. Lemma surface rough <where>/
  - 1. generally <implicit>/

2. above/
  3. in the middle/
  4. below/
  5. on veins/
  6. between veins/
  7. in lines <unrelated to veins>/
- #883. Lemma surface <relief>/
1. unwrinkled <implicit>/
  2. rugulose/
  3. rugose/
  4. corrugate/
- #884. Lemma surface <presence of longitudinal grooves (other than ribs) or splits>/
1. without grooves <implicit>/
  2. with a median groove/
  3. with 2 longitudinal grooves/
  4. with longitudinal folds/
  5. eventually splitting into fibres/
- #885. Lemma surface <presence of germination flap>/
1. without germination flap/
  2. with distinct germination flap/
- #886. Lemma surface <general indumentum> <ordered>/
1. glabrous <except for midvein, marginal, special & apical indumentum> <implicit>/
  2. puberulous/
  3. pubescent/
  4. pilose/
  5. hirsute/
  6. villous/
  7. plumose/
  8. hispidulous/
  9. hispid/
  10. setose/
  11. woolly/
- #887. Lemma surface hairy <extent of general indumentum>/
1. all along <implicit>/
  2. above <excluding apical tuft of long hairs or apical ornament of short hairs>/
  3. in the middle/
  4. below/
  5. at base/
- #888. Lemma surface hairy <where>/
1. on back <implicit>/
  2. on veins <record under margins if veins marginal>/
  3. between veins/
  4. between veins but central interspaces glabrous/
  5. in lines <unrelated to veins>/
- #889. Lemma surface with <hair type>/
1. simple hairs <implicit>/
  2. tubercle-based hairs/
  3. reflexed hairs/
  4. semicircular hairs/
  5. hooked hairs/
  6. capitate hairs/
  7. clavate hairs/
  8. turgid hairs/
- #890. Lemma surface <special indumentum - tufts>/
1. without hair tufts <implicit>/
  2. with basal hair tufts near margin/
  3. with marginal hair tufts <above base>/
  4. with tufts of hair on midvein/
  5. with a transverse row of hair tufts/
  6. with 2 transverse rows of hair tufts/

- 7. with a transverse fringe of hair/
- 8. with conspicuous apical hairs <but if a ring see corona appendage>/
- #891. Lemma surface bearing <number of hair tufts>/  
hair tufts in all/
- #892. Lemma inner surface <indumentum>/
  - 1. glabrous/
  - 2. scabrous/
  - 3. pubescent/
  - 4. pilose/
  - 5. transversely fringed/
- #893. Lemma margins <fusion>/
  - 1. free <implicit>/
  - 2. connate below/
  - 3. closed except for an apical pore/
  - 4. fused below to those of opposing floret forming an urn/
- #894. Lemma margins with <extent connate below>/  
of their length connate/
- #895. Lemma margins <vernation - if free>/
  - 1. flat <implicit>/
  - 2. interlocking with palea margins/
  - 3. involute/
  - 4. convolute/
- #896. Lemma margins <coverage of palea>/
  - 1. exposing palea <implicit>/
  - 2. covering most of palea/
  - 3. interlocking with palea keels/
- #897. Lemma margins <roughness> <ordered>/
  - 1. without distinctive roughness <implicit>/
  - 2. scaberulous/
  - 3. scabrous/
  - 4. spinulose/
  - 5. tuberculate/
- #898. Lemma margins <hairiness> <ordered>/
  - 1. eciliate <not distinct from general indumentum> <implicit>/
  - 2. ciliolate/
  - 3. ciliate/
  - 4. setose/
  - 5. pubescent/
  - 6. pilose/
  - 7. villous/
  - 8. woolly/
- #899. Lemma margins hairy <extent of hairiness>/
  - 1. all along <implicit>/
  - 2. above/
  - 3. in the middle/
  - 4. below/
  - 5. at base/
- #900. Lemma hairs <colour of principal hairs>/
  - 1. white/
  - 2. grey/
  - 3. yellow/
  - 4. tawny/
  - 5. dark brown/
  - 6. red/
  - 7. purple/
  - 8. black/
- #901. Lemma hairs <length of principal hairs>/  
mm long/
- #902. Lemma apex <incision>/
  - 1. entire <implicit>/

- 2. erose/
- 3. dentate/
- 4. lobed/
- #903. Lemma apex <number of primary teeth or lobes>/  
-fid/
- #904. Lemma apex <equality of lobes>/
  - 1. with simple equal lobes <implicit>/
  - 2. with outer lobes longer/
  - 3. with outer lobes shorter/
  - 4. with central lobe bidentate/
  - 5. with lateral lobes bidentate/
  - 6. with irregular lobes/
- #905. Lemma apex with <shape of lobes>/
  - 1. filiform lobes/
  - 2. linear lobes/
  - 3. lanceolate lobes/
  - 4. oblong lobes/
  - 5. ovate lobes/
  - 6. triangular lobes/
  - 7. heterogeneous lobes/
  - 8. outer lobes winged/
  - 9. margins splitting into evanescent supplementary lobes/
- #906. Lemma with lobes <length>/  
mm long/
- #907. Lemma incised <fraction of lemma length>/  
of lemma length/
- #908. Lemma apex <shape of apex or tip of lobes> <ordered>/
  - 1. emarginate/
  - 2. truncate/
  - 3. obtuse/
  - 4. acute/
  - 5. acuminate/
  - 6. attenuate/
  - 7. setaceously acuminate/
  - 8. cuspidate/
  - 9. apiculate/
  - 10. rostrate/
  - 11. caudate/
- #909. Lemma apex <ornamentation - for long hairs see surface tufts or apical appendage>/
  - 1. without ornament <implicit>/
  - 2. cucullate/
  - 3. laterally pinched/
  - 4. with a little green crest/
  - 5. with a green spot/
  - 6. with a shallow excavation/
  - 7. papillose/
  - 8. tuberculate/
  - 9. scabrous/
  - 10. pubescent/
  - 11. woolly/
- #910. Lemma apex <presence of appendage>/
  - 1. without appendage <implicit>/
  - 2. with an annular corona <but no membranous extension>/
  - 3. with a membranous corona/
  - 4. surmounted by a ring of hairs <on corona when present>/
  - 5. with a short cylindrical neck <supporting awn though not part of its column - Stipa>/
  - 6. with a conical beak/
  - 7. with a trilobate appendage/
  - 8. with outer margin prolonged as a hyaline appendage/
- #911. Lemma apex with corona <width>/

- mm wide/  
 #912. Lemma apex with this appendage <length of corona, neck or lateral extension>/  
 mm long/  
 #913. Lemma apex <presence of awn>/  
 1. muticous <implicit>/  
 2. pungent/  
 3. mucronate <may be further described using awn characters>/  
 4. awned/  
 5. awned only on distal spikelets/  
 #914. Lemma apex <number of awns>/  
 -awned/  
 #915. Principal lemma awn <eccentricity>/  
 1. median <implicit>/  
 2. eccentric/  
 #916. Principal lemma awn <position>/  
 1. apical <implicit>/  
 2. subapical/  
 3. from a sinus/  
 4. dorsal/  
 #917. Principal lemma awn arising <origin of dorsal awn as fraction of lemma length>/  
 way up back of lemma/  
 #918. Principal lemma awn <overall shape>/  
 1. straight <implicit>/  
 2. curved/  
 3. flexuous/  
 4. coiled <open coils, not a twisted column>/  
 5. hooked <at tip>/  
 6. geniculate/  
 7. bigeniculate/  
 8. 3-branched <laterals inserted above lemma tip>/  
 #919. Principal lemma awn <flexion relative to lemma or column>/  
 1. ascending <implicit>/  
 2. spreading/  
 3. reflexed <through an angle>/  
 4. recurved <with a semicircular bend> at base of limb/  
 5. briefly coiled <or twisted> at base of limb <not a column, Aristida>/  
 6. twisted together <with others in panicle>/  
 #920. Principal lemma awn <presence of basal constriction, expansion or fusion>/  
 1. simple at base <implicit>/  
 2. pseudo-articulate at base <persistent but with apparent abscission line>/  
 3. pseudo-articulate across body of lemma/  
 4. constricted at base/  
 5. conically expanded at base/  
 6. adnate to lemma lobes at base/  
 #921. Principal lemma awn <basal cross-section>/  
 1. subterete below/  
 2. triquetrous below/  
 3. flat below/  
 #922. Principal lemma awn <stiffness>/  
 1. stiff/  
 2. flexible/  
 3. filiform/  
 #923. Principal lemma awn <nature of tip>/  
 1. attenuate <implicit>/  
 2. pungent/  
 3. with scarcely tapering limb/  
 4. with clavate limb/  
 5. with thread-like crinkled tip/  
 #924. Principal lemma awn <length including column>/  
 mm long overall/

- #925. Principal lemma awn <length as fraction of lemma>/  
length of lemma/
- #926. Principal lemma awn with <length of limb above column or distal bend>/  
mm long limb/
- #927. Principal lemma awn <exsertion>/  
1. clearly exserted from spikelet <implicit>/  
2. not or scarcely exserted from spikelet/
- #928. Principal lemma awn <column>/  
1. without a column <implicit>/  
2. with a straight or slightly twisted column/  
3. with twisted column/
- #929. Principal lemma awn <persistence>/  
1. persistent <implicit>/  
2. deciduous/
- #930. Principal lemma awn abscissing/  
1. across body of lemma/  
2. from top of lemma/  
3. from top of column/
- #931. Principal lemma awn limb <roughness> <ordered>/  
1. smooth/  
2. scaberulous/  
3. scabrous/  
4. retrorsely scabrous/
- #932. Principal lemma awn limb <indumentum> <ordered>/  
1. glabrous <implicit>/  
2. puberulous/  
3. pubescent/  
4. ciliate/  
5. hirsute/  
6. plumose/
- #933. Principal lemma awn with <length of limb hairs>/  
mm long hairs/
- #934. Principal lemma awn <extent of limb hairs>/  
1. hairy throughout limb <implicit>/  
2. glabrescent towards tip/  
3. glabrescent towards base of limb/  
4. glabrescent towards tip and base of limb/
- #935. Middle segment of lemma awn <length - if bigeniculate>/  
mm long/
- #936. Middle segment of lemma awn <indumentum> <ordered>/  
1. glabrous <implicit>/  
2. hispidulous/  
3. puberulous/  
4. pubescent/  
5. ciliate/  
6. hirtellous/  
7. hirsute/  
8. plumose/
- #937. Column of lemma awn <length>/  
mm long/
- #938. Column of lemma awn <length as fraction of limb>/  
length of limb/
- #939. Column of lemma awn <roughness>/  
1. smooth/  
2. scabrous/
- #940. Column of lemma awn <general indumentum> <ordered>/  
1. glabrous <except for top> <implicit>/  
2. hispidulous/  
3. puberulous/  
4. pubescent/

- 5. ciliate/
- 6. hirtellous/
- 7. hirsute/
- 8. plumose/
- #941. Column of lemma awn hairy <where>/
  - 1. generally <implicit>/
  - 2. on upper part/
  - 3. on lower part/
  - 4. on the spiral/
- #942. Column of lemma awn <presence of apical hairs at junction with limb>/
  - 1. without distinct apical hairs <implicit>/
  - 2. with pubescent apex/
  - 3. with bearded apex/
- #943. Column of lemma awn with <length of hairs>/
  - mm long hairs/
- #944. Lateral lemma awns <presence>/
  - 1. absent <implicit>/
  - 2. present/
- #945. Lateral lemma awns arising <origin - if principal unbranched>/
  - 1. on <unlobed> apex <implicit>/
  - 2. on apex of lobes/
  - 3. on inner edge of lobes/
  - 4. on outer edge of lobes/
  - 5. between lobes/
  - 6. on margin of lemma <as an awn-like lobe>/
  - 7. dorsally/
- #946. Lateral lemma awns <flexure relative to principal>/
  - 1. ascending <principal not spreading>/
  - 2. spreading less than principal/
  - 3. spreading as much as principal/
  - 4. spreading more than principal/
  - 5. wrapped around principal/
  - 6. gyrate <twisted together at base>/
- #947. Lateral lemma awns <persistence - if principal unbranched>/
  - 1. persistent <implicit>/
  - 2. deciduous with the principal/
- #948. Lateral lemma awns <length>/
  - mm long/
- #949. Lateral lemma awns <exsertion>/
  - 1. exserted/
  - 2. equalling glumes/
  - 3. enclosed by glumes/
- #950. Lateral lemma awns <equality>/
  - 1. longer than principal/
  - 2. subequal to principal/
  - 3. shorter than principal/
  - 4. of irregular length/
- #951. Lateral lemma awns <length as fraction of principal>/
  - length of principal/
- #952. Lateral lemma awns of <equality of width>/
  - 1. equal width <implicit>/
  - 2. unequal width/
- #953. Lateral lemma awns <indumentum>/
  - 1. glabrous <implicit>/
  - 2. ciliolate/
  - 3. ciliate/
  - 4. plumose/
- #954. Palea <presence>/
  - 1. present <implicit>/
  - 2. absent or minute/

- 3. of fertile floret without accompanying lemma/
- #955. Palea <fusion>/
  - 1. free <implicit>/
  - 2. fused below to rhachilla internode/
  - 3. fused below to lemma margins/
- #956. Palea <gape>/
  - 1. embraced by lemma <tip may protrude apically> <implicit>/
  - 2. inturned at apex/
  - 3. reflexed at apex/
  - 4. separating from lemma above/
  - 5. gaping/
  - 6. readily splitting down midline/
- #957. Palea <outline> <ordered>/
  - 1. linear/
  - 2. lanceolate/
  - 3. elliptic/
  - 4. oblong/
  - 5. ovate/
  - 6. orbicular/
  - 7. obovate/
  - 8. oblanceolate/
- #958. Palea with flaps <width relative to space between keels>/
  - 1. narrower than body/
  - 2. as wide as body/
  - 3. wider than body/
- #959. Palea with <presence of flap auricles>/
  - 1. entire flaps <implicit>/
  - 2. auriculate flaps/
- #960. Palea <vernation>/
  - 1. not rolled <implicit>/
  - 2. involute/
  - 3. tightly convolute around flower/
- #961. Palea <straightness>/
  - 1. straight/
  - 2. with a basal protruberance/
  - 3. bowed outwards/
  - 4. falcate/
- #962. Palea <length>/
  - mm long/
- #963. Palea <fraction of lemma length>/
  - length of lemma/
- #964. Palea <consistency>/
  - 1. hyaline/
  - 2. membranous <implicit>/
  - 3. chartaceous/
  - 4. scarious/
  - 5. cartilaginous/
  - 6. coriaceous/
  - 7. indurate/
  - 8. spongy/
- #965. Palea <variation in consistency>/
  - 1. of uniform consistency/
  - 2. thinner above/
  - 3. thinner on margins/
- #966. Palea <number of veins, including keels>/
  - veined/
- #967. Palea <presence of keels>/
  - 1. without keels/
  - 2. 1-keeled/
  - 3. 2-keeled but the uppermost without keels/

- 4. 2-keeled <implicit>/
- #968. Palea keels <whether extending to apex>/
  - 1. extending to apex/
  - 2. falling well short of apex/
- #969. Palea keels <spacing>/
  - 1. separated <implicit>/
  - 2. approximate/
  - 3. contiguous above a sulcus/
  - 4. distant but flanking a median depression/
- #970. Palea keels <width>/
  - mm apart/
- #971. Palea keels <thickening>/
  - 1. unthickened <implicit>/
  - 2. thickened/
- #972. Palea keels <presence of wings>/
  - 1. wingless <implicit>/
  - 2. winged/
- #973. Palea keels <how much>/
  - 1. narrowly winged/
  - 2. conspicuously winged/
- #974. Palea keels with <wing type>/
  - 1. entire wings <implicit>/
  - 2. erose wings/
  - 3. toothed wings/
  - 4. clavate appendages on wings/
  - 5. each wing 1-awned/
  - 6. each wing 2-awned/
- #975. Palea keels <roughness> <ordered>/
  - 1. smooth <implicit>/
  - 2. scaberulous/
  - 3. scabrous/
  - 4. spinulose/
  - 5. tuberculate/
- #976. Palea keels <indumentum> <ordered>/
  - 1. eciliate <implicit>/
  - 2. puberulous/
  - 3. pubescent/
  - 4. ciliolate/
  - 5. ciliate/
  - 6. pectinate/
  - 7. villous/
  - 8. woolly/
  - 9. with a crest of hairs/
- #977. Palea keels adorned <where; refers to longer enations when more than 1 kind, but clarify in comment>/
  - 1. all along/
  - 2. above/
  - 3. in the middle/
  - 4. below/
- #978. Palea keels with <extent of enations as fraction of palea length>/
  - of their length adorned/
- #979. Palea keels adorned <density>/
  - 1. densely/
  - 2. sparsely/
- #980. Palea keels with <number of prickles or hairs>/
  - enations per keel/
- #981. Palea keels with hairs <length of hairs>/
  - mm long/
- #982. Palea surface <roughness> <ordered>/
  - 1. smooth/
  - 2. granular/

- 3. asperulous/
- 4. scaberulous/
- 5. scabrous/
- 6. papillose/
- 7. tuberculate/
- 8. rugose/
- 9. pitted/
- #983. Palea surface <indumentum - excluding keels and apex>/
  - 1. glabrous <implicit>/
  - 2. puberulous/
  - 3. pubescent/
  - 4. pilose/
  - 5. hirsute/
  - 6. villous/
  - 7. woolly/
- #984. Palea surface hairy <where>/
  - 1. on back/
  - 2. on flanks/
  - 3. on margins/
  - 4. in a transverse fringe/
- #985. Palea surface hairy <extent>/
  - 1. all along/
  - 2. above/
  - 3. in the middle/
  - 4. below/
  - 5. at base/
- #986. Palea surface with <hair type>/
  - 1. simple hairs <implicit>/
  - 2. hooked hairs/
  - 3. turgid hairs/
- #987. Palea apex <incision>/
  - 1. entire/
  - 2. erose/
  - 3. dentate/
  - 4. lobed/
  - 5. divided to base/
- #988. Palea apex <number of teeth>/
  - fid/
- #989. Palea apex <shape of apex or teeth> <ordered>/
  - 1. emarginate/
  - 2. truncate/
  - 3. obtuse/
  - 4. acute/
  - 5. acuminate/
  - 6. cuspidate/
  - 7. caudate/
- #990. Palea apex <ornamentation>/
  - 1. undifferentiated <implicit>/
  - 2. glabrous/
  - 3. pubescent/
  - 4. ciliate/
  - 5. papillose/
  - 6. tuberculate/
  - 7. scaberulous/
  - 8. excavated/
  - 9. with green spots/
- #991. Palea apex <presence of awn>/
  - 1. muticous <implicit>/
  - 2. with excurrent keel veins/
  - 3. awned/

- #992. Palea awns <length of apical awns>/  
mm long/
- #993. Palea awns <indumentum>/  
1. glabrous <implicit>/  
2. hairy/
- #994. Rhachilla extension <length beyond distal fertile floret, either barren or supporting modified sterile florets>/  
mm long/
- #995. Rhachilla extension <length as fraction of fertile floret>/  
length of fertile floret/
- #996. Rhachilla extension <curvature>/  
1. straight/  
2. bent/
- #997. Rhachilla extension <indumentum>/  
1. glabrous <implicit>/  
2. sparsely hairy/  
3. pubescent/  
4. pilose/  
5. villous/
- #998. Rhachilla extension hairy <where>/  
1. throughout/  
2. throughout but longer above/  
3. at tip <only>/  
4. above/  
5. in the middle/  
6. below/
- #999. Rhachilla extension with <hair length>/  
mm long hairs/
- #1000. Apical sterile florets <resemblance to fertile>/  
1. resembling fertile though underdeveloped <rest of section inapplicable>/  
2. distinct from fertile <and variously modified> <implicit>/
- #1001. Apical sterile florets <number, if distinguishable>/  
in number/
- #1002. Apical sterile florets <abscission - if spikelet breaks up>/  
1. deciduous with fertile floret <implicit>/  
2. abscissing from fertile floret/
- #1003. Apical sterile florets <similarity>/  
1. similar <but diminishing in size, or single> <implicit>/  
2. dissimilar <the first (lowest) different and separate>/
- #1004. First apical floret <sex>/  
1. male/  
2. barren/
- #1005. First apical floret <outline>/  
1. linear/  
2. lanceolate/  
3. elliptic/  
4. oblong/  
5. ovate/  
6. orbicular/  
7. flabellate/  
8. cuneate/
- #1006. First apical floret <length>/  
mm long/
- #1007. First apical floret <indumentum>/  
1. glabrous/  
2. pubescent/  
3. pilose/  
4. hirsute/  
5. villous/
- #1008. First apical floret <presence of awns>/

- 1. muticous/
- 2. mucronate/
- 3. awned/
- #1009. Apical sterile florets <remainder when first different - sex>/
  - 1. male/
  - 2. barren/
- #1010. Apical sterile florets <clumping>/
  - 1. separate <or single> <implicit>/
  - 2. in a clump/
- #1011. Apical sterile florets with internodes <length - when 2 or more florets>/
  - mm long between them/
- #1012. Apical sterile florets <outline of lemma or clump>/
  - 1. rudimentary <the body small or indefinitely distinguished from the awn it bears>/
  - 2. linear/
  - 3. lanceolate/
  - 4. elliptic/
  - 5. oblong/
  - 6. ovate/
  - 7. orbicular/
  - 8. flabellate/
  - 9. cuneate/
- #1013. Apical sterile florets <length of body>/
  - mm long/
- #1014. Apical sterile lemmas <presence of wings>/
  - 1. wingless <implicit>/
  - 2. winged on keel/
  - 3. winged on margins/
- #1015. Apical sterile lemmas <indumentum of body>/
  - 1. glabrous <implicit>/
  - 2. scabrous/
  - 3. pubescent/
  - 4. pilose <ciliate>/
- #1016. Apical sterile lemmas adorned <extent of hairs>/
  - 1. all over <implicit>/
  - 2. on keel/
  - 3. on margins/
- #1017. Apical sterile lemmas <incision>/
  - 1. entire <implicit>/
  - 2. dentate/
  - 3. lobed/
- #1018. Apical sterile lemmas <number of teeth or lobes>/
  - fid/
- #1019. Apical sterile lemmas <shape of apex> <ordered>/
  - 1. emarginate/
  - 2. truncate/
  - 3. obtuse/
  - 4. acute/
  - 5. acuminate/
  - 6. attenuate/
  - 7. cuspidate/
- #1020. Apical sterile lemmas <presence of awns, at least on distal floret>/
  - 1. muticous <implicit>/
  - 2. mucronate/
  - 3. awned/
- #1021. Apical sterile lemmas <number of awns on each>/
  - awned/
- #1022. Apical sterile lemma awns <position>/
  - 1. terminal <from apex or sinus> <implicit>/
  - 2. subapical/
  - 3. dorsal/

- #1023. Apical sterile lemma awns <straightness>/  
 1. straight <implicit>/  
 2. geniculate/  
 3. hooked/
- #1024. Apical sterile lemma awns <equality if more than 1>/  
 1. equal/  
 2. unequal/
- #1025. Apical sterile lemma awns <length of longest>/  
 mm long/
- #1026. Apical sterile lemma awns <indumentum>/  
 1. glabrous <implicit>/  
 2. retrorsely scabrous/  
 3. ciliate/
- #1027. Apical sterile lemma awns <total sterile awns(incl first), if distinguishable>/  
 per spikelet in number/
- #1028. Lodicules <number>/  
 1. absent/  
 2. 1/  
 3. 2/  
 4. 3/  
 5. many/  
 6. represented by a ring of hairs/
- #1029. Lodicules <union>/  
 1. free <implicit>/  
 2. united/  
 3. adnate to palea/
- #1030. Lodicules <outline>/  
 1. linear/  
 2. lanceolate/  
 3. elliptic/  
 4. oblong/  
 5. orbicular/  
 6. ovate/  
 7. obovate/  
 8. oblanceolate/  
 9. cuneate/
- #1031. Lodicules <length>/  
 mm long/
- #1032. Lodicules <consistency>/  
 1. membranous <above>/  
 2. scarious/  
 3. coriaceous/  
 4. fleshy <throughout>/
- #1033. Lodicules <presence of veins>/  
 1. veinless/  
 2. veined/
- #1034. Lodicules <hairiness>/  
 1. glabrous <implicit>/  
 2. ciliate/
- #1035. Lodicules hairy <where>/  
 1. across the apex/  
 2. on the corners/
- #1036. Lodicules <incision>/  
 1. entire/  
 2. with a small lateral lobe/  
 3. 2-toothed/  
 4. irregularly toothed/
- #1037. Lodicules <shape of apex or lobes>/  
 1. emarginate/  
 2. truncate/

- 3. obtuse/
- 4. acute/
- 5. acuminate/
- #1038. Anthers <number. Diclinous male spikelets entered here, but need rearranging in description. Comment if sterile florets different>/
- /
- #1039. Anthers <shape>/
  - 1. linear/
  - 2. oblong/
  - 3. subglobose/
- #1040. Anthers <attachment to filament>/
  - 1. basifixed/
  - 2. medifixed/
- #1041. Anthers <length>/
  - mm long/
- #1042. Anthers <aerial cleistogamy; see also cleistogenes>/
  - 1. retained within floret/
  - 2. eventually exerted/
- #1043. Anthers <dehiscence>/
  - 1. dehiscent by a longitudinal slit/
  - 2. dehiscent by a subapical slit/
  - 3. indehiscent <with deformed pollen>/
- #1044. Anthers <colour>/
  - 1. pallid/
  - 2. yellow/
  - 3. green/
  - 4. brown/
  - 5. orange/
  - 6. red/
  - 7. purple/
  - 8. black/
- #1045. Anther tip <ornamentation>/
  - 1. smooth/
  - 2. apiculate/
  - 3. penicillate/
  - 4. pubescent/
  - 5. with extended connective <between anthers>/
- #1046. Filaments <union>/
  - 1. free <implicit>/
  - 2. united in groups/
  - 3. united in a tube/
- #1047. Filaments united for <extent of union>/
  - of their length/
- #1048. Filaments <length>/
  - mm long/
- #1049. Staminodes <presence - refers to female florets if diclinous>/
  - 1. absent <implicit>/
  - 2. present/
- #1050. Staminodes <length>/
  - mm long/
- #1051. Stigmas <number>/
- /
- #1052. Stigmas <whether protogynous>/
  - 1. protandrous/
  - 2. protogynous/
- #1053. Stigmas <exsertion>/
  - 1. retained within floret/
  - 2. laterally exerted/
  - 3. terminally exerted/
  - 4. terminally exerted and tangled/

- #1054. Stigmas <colour>/
1. white/
  2. yellow/
  3. brown/
  4. red/
  5. purple/
- #1055. Stigmas <indumentum>/
1. plumose <implicit>/
  2. sparsely hairy/
  3. pubescent/
  4. papillose/
  5. retrorsely barbellate/
- #1056. Styles <length>/
- mm long/
- #1057. Styles <union>/
1. free to the base/
  2. connate below/
- #1058. Styles <fraction of length connate>/
- of their length connate/
- #1059. Ovary <presence of apical appendage>/
1. unappendaged <implicit>/
  2. with a fleshy appendage below style insertion/
  3. with a fleshy appendage above style insertion/
  4. umbonate <best seen in bamboos at the semi-mature stage>/
  5. beaked/
  6. with a steeple-like appendage/
- #1060. Ovary <indumentum>/
1. glabrous/
  2. with a few apical hairs/
  3. pubescent on apex/
  4. pubescent all over/
- #1061. Caryopsis with <type of pericarp>/
1. adherent pericarp/
  2. tardily free pericarp <cistoid>/
  3. free soft pericarp <follicoid>/
  4. free brittle pericarp <nucoid>/
  5. fleshy pericarp <baccoid>/
- #1062. Caryopsis <outline>/
1. linear/
  2. lanceolate/
  3. fusiform/
  4. ellipsoid/
  5. oblong/
  6. ovoid/
  7. orbicular/
  8. reniform/
  9. obovoid/
  10. oblanceolate/
  11. square/
- #1063. Caryopsis <compression, viewed from embryo>/
1. isodiametric <in section>/
  2. laterally compressed/
  3. dorsally compressed <slightly>/
  4. <dorsally> flattened/
- #1064. Caryopsis <transverse section>/
1. biconvex/
  2. plano-convex/
  3. concavo-convex/
  4. trigonous/
  5. quadrangular/

- #1065. Caryopsis <presence of basal stipe>/  
 1. estipitate/  
 2. stipitate/
- #1066. Caryopsis <presence of hilar groove>/  
 1. without sulcus/  
 2. sulcate on hilar side/
- #1067. Caryopsis <exposure>/  
 1. concealed by floret/  
 2. exposed between gaping lemma and palea at maturity/
- #1068. Caryopsis <length>/  
 mm long/
- #1069. Caryopsis <colour>/  
 1. pallid/  
 2. grey/  
 3. yellow/  
 4. green/  
 5. light brown/  
 6. dark brown/  
 7. red/  
 8. purple/  
 9. black/
- #1070. Caryopsis <roughness>/  
 1. smooth/  
 2. granular/  
 3. striate/  
 4. reticulate/  
 5. rugose/  
 6. pitted/
- #1071. Caryopsis <indumentum>/  
 1. glabrous/  
 2. hairy at apex/  
 3. hairy all over/
- #1072. Caryopsis <shape of apex>/  
 1. emarginate/  
 2. truncate/  
 3. obtuse/  
 4. acute/  
 5. acuminate/  
 6. cuspidate/  
 7. apiculate/
- #1073. Caryopsis apex <presence of apical appendage>/  
 1. unappendaged/  
 2. fleshy/  
 3. umbonate/  
 4. rostrate/  
 5. bicornate/
- #1074. Embryo <length as fraction of caryopsis>/  
 length of caryopsis/
- #1075. Embryo <basal projection>/  
 1. not projecting/  
 2. projecting below grain/
- #1076. Embryo with <position of plumule>/  
 1. apical plumule/  
 2. lateral plumule/  
 3. basal plumule/
- #1077. Hilum <shape>/  
 1. punctiform/  
 2. elliptic/  
 3. linear <and straight>/  
 4. curved <and elongated>/

- #1078. Hilum <length as fraction of caryopsis>/  
length of caryopsis/
- #1079. Endosperm <consistency>/  
1. flinty <translucent>/  
2. farinose/  
3. soft/  
4. liquid/  
5. evanescent/
- #1080. Disseminule comprising a/  
1. seed/  
2. caryopsis/  
3. caryopsis and palea/  
4. floret/  
5. floret with sterile lemmas/  
6. group of fertile florets/  
7. spikelet/  
8. rhachis internode <one internode bearing 1 or more spikelets>/  
9. branch <including racemelet, cluster and multiple internodes>/  
10. inflorescence/  
11. synflorescence <one or more inflorescences with subtending leaves>/
- #1081. Secondary disseminule/  
1. none <implicit>/  
2. a floret/  
3. a spikelet/  
4. a branch/  
5. an inflorescence/
- #1082. Male inflorescence <location>/  
1. terminal/  
2. axillary/
- #1083. Male inflorescence <similarity to female; add comment after character if gynodioeciously bisexual>/  
1. similar to female/  
2. unlike female/
- #1084. Male inflorescence <facies>/  
1. a spathate compound head/  
2. a panicle/  
3. a single raceme/  
4. of subdigitate racemes/  
5. of racemes along a central axis/  
6. of few spikelets/
- #1085. Male inflorescence with <whether racemes pectinate>/  
1. non-pectinate racemes <implicit>/  
2. pectinate racemes/
- #1086. Male spikelets <similarity to female>/  
1. resembling female/  
2. similar to female but less developed/  
3. distinct from female/
- #1087. Male spikelets with <pedicel fusion - if monoecious with male segregated (mostly Andropogoneae); else see principal pedicel>/  
1. free pedicels/  
2. pedicels fused to rhachis/
- #1088. Male spikelets <number of male florets>/  
flowered/
- #1089. Male spikelets <presence of rhachilla extension>/  
1. without rhachilla extension <underdeveloped florets may be present> <implicit>/  
2. with barren rhachilla extension/  
3. with rudimentary <modified> apical florets/
- #1090. Male spikelets <persistence>/  
1. persistent/  
2. separately deciduous/  
3. all deciduous together <but separate from female, when more than 1>/

4. deciduous with the fertile/  
 #1091. Male spikelets <outline> <ordered>/  
 1. linear/  
 2. lanceolate/  
 3. elliptic/  
 4. oblong/  
 5. ovate/  
 6. obovate/  
 7. oblanceolate/  
 8. cuneate/  
 #1092. Male spikelets <length>/  
 mm long/  
 #1093. Male spikelets <indumentum>/  
 1. glabrous/  
 2. hairy/  
 #1094. Male spikelets <shape of apex>/  
 1. obtuse/  
 2. acute/  
 3. dentate/  
 #1095. Male spikelet glumes <presence>/  
 1. absent/  
 2. 1/  
 3. 2/  
 #1096. Male spikelet glumes <outline> <ordered>/  
 1. subulate/  
 2. linear/  
 3. lanceolate/  
 4. elliptic/  
 5. oblong/  
 6. triangular/  
 7. ovate/  
 8. orbicular/  
 9. oblate/  
 10. obovate/  
 11. cuneate/  
 #1097. Male spikelet glumes <length>/  
 mm long/  
 #1098. Male spikelet glumes/  
 1. membranous/  
 2. coriaceous/  
 #1099. Male spikelet glumes <presence of wing>/  
 1. wingless/  
 2. winged/  
 #1100. Male spikelet glumes <vein number>/  
 -veined/  
 #1101. Male spikelet glumes <presence of awn>/  
 1. muticous/  
 2. awned/  
 #1102. Male spikelet glumes with <awn length>/  
 mm long awn/  
 #1103. Male spikelet lemma <length>/  
 mm long/  
 #1104. Male spikelet lemma <number of veins>/  
 -veined/  
 #1105. Male spikelet lemma <presence of cross-veins>/  
 1. without cross-veins/  
 2. with cross-veins/  
 #1106. Male spikelet lemma <presence of awn>/  
 1. muticous/  
 2. awned/

- #1107. Male spikelet lemma with <length of awn>/  
mm long awn/
- #1108. Cleistogenes <presence of concealed spikelets of different appearance>/  
1. absent <but aerial cleistogamy may occur> <implicit>/  
2. present/
- #1109. Cleistogenes <location>/  
1. in upper sheaths/  
2. in lower sheaths/  
3. underground <rhizanthogenes>/
- #1110. Cleistogenes <number of florets>/  
-flowered/
- #1111. Cleistogenes <length>/  
mm long/
- #1112. Vegetative proliferation <of spikelet>/  
1. absent <implicit>/  
2. occurs/
- #1113. Vivipary <germination on culm>/  
1. absent <implicit>/  
2. occurs/
- #1114. <Chromosome number>  $n =$ /
- #1115. <Chromosome number>  $2n =$ /
- #1116. Chromosome to check/  
1. check/
- #1117. Distribution Map/  
1. TROPICOS/  
2. FNA/
- #1118. <Old World or New World>/  
1. Old World/  
2. New World/
- #1119. <**Continental Distribution TDWG Level 1**>/  
1. Europe/  
2. Africa/  
3. Temperate Asia/  
4. Tropical Asia/  
5. Australasia/  
6. Pacific/  
7. North America/  
8. South America/  
9. Antarctica/
- #1120. Endemic status:/  
1. endemic to 1 "continent"/  
2. endemic to 1 region/  
3. endemic to 1 country or part of country/  
4. endemic to 1 TADWG4 area/  
5. occurring in 2 continents/  
6. occurring in 3 continents/  
7. occurring in 4 continents/  
8. occurring in 5 continents/  
9. naturalised or weedy/
- #1121. <EUROPE: regional distribution - TDWG level 2>/  
1. <10> Northern Europe/  
2. <11> Middle Europe/  
3. <12> Southwestern Europe/  
4. <13> Southeastern Europe/  
5. <14> Eastern Europe/
- #1122. <AFRICA: regional distribution>/  
1. <20> Northern Africa/  
2. <21> Macaronesia/  
3. <22> West tropical Africa/  
4. <23> West-central tropical Africa/

5. <24> Northeast tropical Africa/
  6. <25> East tropical Africa/
  7. <26> South tropical Africa/
  8. <27> Southern Africa/
  9. <28> Middle Atlantic ocean/
  10. <29> Western Indian ocean/
- #1123. <TEMPERATE ASIA: regional distribution>/
1. <30> Siberia/
  2. <31> Russian far east/
  3. <32> Middle Asia/
  4. <33> Caucasus/
  5. <34> Western Asia/
  6. <35> Arabian Peninsula/
  7. <36> China/
  8. <37> Mongolia/
  9. <38> Eastern Asia/
  10. Russia/
- #1124. <TROPICAL ASIA: regional distribution>/
1. <40> Indian Subcontinent/
  2. <41> Indo-China/
  3. <42> Malesia/
  4. <43> Papuasia/
- #1125. <AUSTRALASIA: regional distribution>/
1. <50> Australia/
  2. <51> New Zealand/
- #1126. <PACIFIC: regional distribution>/
1. <60> Southwestern Pacific/
  2. <61> South-central Pacific/
  3. <62> Northwestern Pacific/
  4. <63> North-central Pacific/
- #1127. <NORTH AMERICA: regional distribution>/
1. <70> Subarctic America/
  2. <71> Western Canada/
  3. <72> Eastern Canada/
  4. <73> Northwest USA/
  5. <74> North-central USA/
  6. <75> Northeast USA/
  7. <76> Southwestern USA/
  8. <77> South-central USA/
  9. <78> Southeastern USA/
  10. <79> Mexico/
- #1128. <SOUTH AMERICA: regional distribution>/
1. <80> Central America/
  2. <81> Caribbean/
  3. <82> Northern South America/
  4. <83> Western South America/
  5. <84> Brazil/
  6. <85> Southern South America/
- #1129. <ANTARCTIC regional distribution>/
1. <90> Subantarctic islands/
  2. <91> Antarctic continent/
- #1130. <EUROPE TDWG level 3 Northern Europe 1> :/
1. <DEN> <Da, FE> Denmark/
  2. <FIN> Finland <Fe, FE>/
  3. <FOR> Foroyar <Fa, FE>/
  4. <GRB> Great Britain <Br, Hubbard, FE, Ryves>/
  5. <ICE> Iceland <Is, FE>/
  6. <IRE> Ireland <Hb, FE>/
  7. Northern Ireland <FE>/
  8. <NOR> Norway <No, FE>/

9. <SVA> Svarlbad <Sb, FE>/  
 10. <SWE> Sweden <Su, FE>/
- #1131. <Middle Europe 2> :/  
 1. <AUT> Austria <Au, FE>/  
 2. Liechstenstein/  
 3. <BGM> Belgium <Be, FE>/  
 4. Luxembourg/  
 5. <CZE> Czechoslovakia <Cz,FE>/  
 6. <GER> Germany <Ge, FE>/  
 7. <HUN> Hungary <Hu, FE>/  
 8. <NET> Netherlands <Ho, FE>/  
 9. <POL> Poland <Po, FE>/  
 10. <SWI> Switzerland <He, FE>/
- #1132. <Southwest Europe 3> :/  
 1. <BAL> Baleares <Bl, FE>/  
 2. <COR> Corsica <Co, FE>/  
 3. Channel Islands/  
 4. <FRA> France <Ga, FE>/  
 5. Monaco/  
 6. <POR> Portugal <Lu, FE>/  
 7. <SAR> Sardinia <Sa, FE>/  
 8. Andorra/  
 9. Gibraltar/  
 10. <SPA> Spain <Hs, FE>/  
 11. Azores <Az, FE>/
- #1133. <Southeast Europe 4> :/  
 1. <ALB> Albania <Al, FE>/  
 2. <BUL> Bulgaria <Bu, FE>/  
 3. <GRC> Greece <Gr, FE>/  
 4. <ITA> Italy <It, FE>/  
 5. San Marino/  
 6. Vatican/  
 7. <KRI> Kriti <Cr, FE>/  
 8. <ROM> Romania <Rm, FE>/  
 9. Malta/  
 10. <SIC> Sicily <Si, FE>/  
 11. <TUE> Turkey Europe <Tu, FE>/  
 12. <YUG> Yugoslavia <Ju, FE>/
- #1134. <Eastern Europe: 5>/  
 1. <BLR> Belarus/  
 2. Estonia/  
 3. Kalingrad/  
 4. Latvia/  
 5. Lithuania/  
 6. <BLT> Baltic States <Rs B>/  
 7. <KRY> Krym <RsK, FE>/  
 8. <RUC> Central European Russia <RUC; FE; Smolensk, Bryansk, Moscow,>/  
 9. <RUE> East European Russia <RUE, Kirov>/  
 10. <RUN> North European Russia <RUN, Rs N, FE; Karelia, Vologda, Arkhangelsk>/  
 11. <RUS> South European Russia <RUS>/  
 12. <RUW> Northwest European Russia <RUW, Leningrad, Pskov, Novgorod>/  
 13. Moldova/  
 14. <UKR> Ukraine/
- #1135. <AFRICA Northern Africa: 1>/  
 1. <ALG> Algeria <Maire>/  
 2. <EGY> Egypt <Boulos>/  
 3. <LBY> Libya/  
 4. <MOR> Morocco <Maire>/  
 5. <TUN> Tunisia <Maire>/  
 6. <WSA> Western Sahara/

- #1136. <Macaronesia: 2>/
1. <AZO> Azores/
  2. <CNY> Canary Is/
  3. <CVI> Cape Verde/
  4. <MDR> Madeira/
  5. <SEL> Selvagens/
- #1137. <West Tropical Africa: 3>/
1. <BEN> Benin <FWTA as Dahomey>/
  2. <BKN> Burkina <FWTA as U.Volta>/
  3. <GAM> The Gambia <FWTA>/
  4. <GHA> Ghana <FWTA>/
  5. <GNB> Guinea-Bissau <FWTA, as Port G>/
  6. <GUI> Guinea <FWTA>/
  7. <IVO> Ivory Coast <FWTA>/
  8. <LBR> Liberia <FWTA>/
  9. <MLI> Mali <FWTA>/
  10. <MTN> Mauritania <FWTA, Naegele>/
  11. <NGA> Nigeria <Stanfield, FWTA>/
  12. <NGR> Niger <FWTA>/
  13. <SEN> Senegal <FWTA>/
  14. <SIE> Sierre Leone <FWTA>/
  15. <TOG> Togo <FWTA>/
- #1138. <West Central Tropical Africa: 4>/
1. <BUR> Burundi/
  2. <CAB> Cabinda/
  3. <CAF> Central African Republic/
  4. <CMN> Cameroon <FWTA>/
  5. <CON> Congo/
  6. <EQG> Equatorial Guinea/
  7. <GAB> Gabon/
  8. <GGI> Gulf of Guinea Is/
  9. Annobon, Principe & Sao Tome/
  10. Bioko <FWTA as Fernando Po>/
  11. <RWA> Rwanda/
  12. <ZAI> DRC/
- #1139. <Northeast Tropical Africa: 5>/
1. <CHA> Chad/
  2. <DJI> Djibouti/
  3. <ERI> Eritrea/
  4. <ETH> Ethiopia (inc. Eritrea) <Phillips, Froman & Persson>/
  5. <SOC> Socotra/
  6. <SOM> Somalia <Cope>/
  7. <SUD> Sudan <Andrews>/
- #1140. <East Tropical Africa: 6>/
1. <KEN> Kenya <FTEA>/
  2. <TAN> Tanzania <FTEA, Napper>/
  3. <UGA> Uganda <FTEA, Harker & Napper>/
- #1141. <South Tropical Africa: 7>/
1. <ANG> Angola/
  2. <MLW> Malawi <FZ>/
  3. <MOZ> Mozambique <FZ>/
  4. <ZAM> Zambia <FZ>/
  5. <ZIM> Zimbabwe <FZ>/
- #1142. <South Africa -Strelitzia 14>/
1. <N> Namibia/
  2. <B> Botswana/
  3. <LIM> SA Limpopo/
  4. <NW> SA North-West/
  5. <G> SA Gauteng/
  6. <M> SA Mpumalanga/

7. <S> Swaziland/
  8. <FS> SA Free State/
  9. <KZN> SA Kwazulu-Natal/
  10. <L> Lesotho/
  11. <NC> SA Northern Cape/
  12. <WC> SA Western Cape/
  13. <EC> SA Eastern Cape/
- #1143. <Southern Africa: 8>/
1. <BOT> Botswana <FZ>/
  2. <CPP> Cape Provinces <GR - now Northern Cape, Western Cape, Eastern Cape, North West (in part)>/
  3. <CPV> Caprivi Strip <FZ>/
  4. <LES> Lesotho/
  5. <NAM> Namibia <Launert, Muller>/
  6. <NAT> KwaZulu-Natal <GR, Ross>/
  7. <OFS> Free State <GR>/
  8. <SWZ> Swaziland/
  9. <TVL> Northern Provinces <GR as Tvl (Gauteng, Limpopo, Mpumalanga, North West (in part))>/
- #1144. <Middle Atlantic Ocean: 9>/
1. <ASC> Ascension/
  2. <STH> St Helena/
- #1145. <Western Indian Ocean: 10>/
1. <ALD> Aldabra <Renvoize>/
  2. <CGS> Chagos Archipelago/
  3. <COM> Comoros/
  4. <MAU> Mauritius <Hubbard>/
  5. <MDG> Madagascar <Bossier, Dransfield>/
  6. <REU> Reunion <Hubbard>/
  7. <ROD> Rodrigues/
  8. <SEY> Seychelles/
- #1146. <TEMPERATE ASIA - TDWG level 3 Siberia: 1>/
1. <ALT> Altay/
  2. <BRY> Buryatiya/
  3. <CTA> Chita/
  4. <IRK> Irkutsk/
  5. <KRA> Krasnoyarsk/
  6. <TVA> Tuva/
  7. <WSB> West Siberia <Tsvelev>/
  8. <YAK> Yakutiya/
- #1147. <Russian Far East: 2>/
1. <AMU> Amur/
  2. <KAM> Kamchatka <Tsvelev>/
  3. <KHA> Khabarovsk <Tsvelev as Uda, Okhotsk, Ussuri>/
  4. <KUR> Kuril Is <Tsvelev>/
  5. <MAG> Magadan/
  6. <PRM> Primorye/
  7. <SAK> Sakhalin <Tsvelev>/
- #1148. <Middle Asia: 3>/
1. <KAZ> Kazakhstan/
  2. <KGZ> Kirgizistan/
  3. <TKM> Turkmenistan/
  4. <TZK> Tadjikistan/
  5. <UZB> Uzbekistan/
- #1149. <Caucasus: 4>/
1. <NCS> North Caucasus/
  2. <TCS> Transcaucasus/
- #1150. <Western Asia: 5>/
1. <AFG> Afghanistan/
  2. <CYP> Cyprus/
  3. <EAI> East Aegean Is/
  4. <IRN> Iran <Bor>/

5. <IRQ> Iraq <Bor>/
  6. <LBS> Lebanon-Syria/
  7. <PAL> Palestine & Jordan/
  8. <SIN> Sinai/
  9. <TUR> Turkey <Davis>/
- #1151. <Arabian Peninsula: 6> <Cope>/
1. <GST> Gulf States/
  2. <KUW> Kuwait/
  3. <OMA> Oman/
  4. <SAU> Saudi Arabia/
  5. <YEM> Yemen/
- #1152. <China: 7>/
1. <CHC> China South-Central <CQ, GZ, HU, SI, YN>/
  2. <CHH> Hainan/
  3. <CHI> Inner Mongolia <NM, NX>/
  4. <CHM> Manchuria <HJ, JL, LN>/
  5. <CHN> China North-central <BJ, GS, HB, SA, SD, SX, TJ>/
  6. <CHQ> Qinghai/
  7. <CHS> China Southeast <AH, FJ, GD, GX, HE, HK, HN, JS, JX, KM, MA, MP, SH, ZJ>/
  8. <CHT> Tibet <Xizang>/
  9. <CHZ> Xinjiang/
- #1153. <Mongolia: 8>/
1. <MON> Mongolia/
- #1154. <Eastern Asia: 9>/
1. <JAP> Japan <Koyama, Tvelev>/
  2. <KOR> Korea/
  3. <KZN> Kazan-retto/
  4. <NNS> Nansei-Shoto <Okinawa>/
  5. <OGA> Ogosawara-shoto <Bonin Is, Ryukyus>/
  6. <TAI> Taiwan <Hsu>/
- #1155. <TROPICAL ASIA Indian Subcontinent: 1> <Bor>/
1. <ASS> Assam/
  2. <BAN> Bangladesh/
  3. <EHM> Eastern Himalaya <Bhutan[Noltie] Sikkim etc>/
  4. <IND> India/
  5. <LDV> Laccadive Is/
  6. <MDV> Maldives/
  7. <NEP> Nepal/
  8. <PAK> Pakistan <Cope>/
  9. <SRL> Sri Lanka <Clayton, Senaratna>/
  10. <WHM> West Himalaya/
- #1156. <Indo-China: 2> <Schmid>/
1. <AND> Andaman Is/
  2. <CBD> Cambodia/
  3. <LAO> Laos <Hacker>/
  4. <MYA> Myanmar <Bor>/
  5. <NCB> Nicobar Is/
  6. <SCS> South China Sea/
  7. <THA> Thailand <Bor?>/
  8. <VIE> Vietnam <Hacker, Schmidt>/
- #1157. <Malesia: 3> <Lazarides, Simon WARIS database>/
1. <BOR> Borneo/
  2. <CKI> Cocos (Keeling) Is/
  3. <JAW> Jawa/
  4. <LSI> Lesser Sunda Is <Bali, Lombok, Timor, Flores>/
  5. <MLY> Malaya <Malay Peninsula & Singapore> <Gilliland>/
  6. Singapore <Keng, Chin & Tan>/
  7. <MOL> Moluccas <Muluku>/
  8. <PHI> Philippines <Merrill>/
  9. <SUL> Sulawesi <Celebes>/

10. <SUM> Sumatra/
  11. <XMS> Christmas I/
- #1158. <Papuasias: 4>/
1. <BIS> Bismark Archipelago/
  2. <NWG> New Guinea <Henty>/
  3. <SOL> Solomon Is/
- #1159. <AUSTRALASIA Australia: 1>/
1. <WAU> Western Australia <AusGrass>/
  2. <NTA> Northern Territory <AusGrass>/
  3. <SOA> South Australia <AusGrass>/
  4. <QLD> Queensland <AusGrass>/
  5. <NSW> New South Wales <AusGrass>/
  6. <CT> A.C.T. <AusGrass>/
  7. <VIC> Victoria <AusGrass>/
  8. <TAS> Tasmania <AusGrass>/
  9. <NFK> Lord Howe-Norfolk Is <FoA>/
- #1160. <New Zealand: 2 Edgar & Connor>/
1. <ATP> Antipodes Is/
  2. <CTM> Chatham Is/
  3. <KER> Kermadec Is/
  4. <NZN> New Zealand North I/
  5. <NZN> New Zealand South I/
  6. Stewart Is/
  7. Campbell Is/
  8. Auckland Is/
  9. Snares Is/
  10. Macquarie Is/
- #1161. <PACIFIC Southwestern Pacific: 1>/
1. <FIJ> Fiji <Parham>/
  2. <GIL> Gilbert Is/
  3. <HBI> Howland-Baker Is/
  4. <NRU> Nauru/
  5. <NUE> Niue/
  6. <NWC> New Caledonia <Toutain>/
  7. <PHX> Phoenix Archipelago/
  8. <SAM> Samoa/
  9. Santa Cruz Is/
  10. <TOK> Tokelau-Manihiki/
  11. <TON> Tonga/
  12. <TUV> Tuvalu/
  13. <VAN> Vanuatu/
  14. <WAL> Wallis-Futuna Is/
- #1162. <South-Central Pacific: 2>/
1. <COO> Cook Is/
  2. <EAS> Easter Is/
  3. <LIN> Line Is/
  4. <MRQ> Marquesas/
  5. <PIT> Pitcairn Is/
  6. <SCI> Society Is/
  7. <TUA> Tuamotu Is/
  8. <TUB> Tubuai Is/
- #1163. <Northwestern Pacific: 3>/
1. <CRL> Caroline Is/
  2. Kazan-retto/
  3. <MCS> Marcus Is/
  4. <MRN> Marianas/
  5. <MRS> Marshall Is/
  6. Ogasawara-shoto/
  7. <WAK> Wake Is/
- #1164. <North-Central Pacific: 4>/

1. <HAW> Hawaii <Wagner, Herbst & Clayton, Snow>/
- #1165. <NORTH AMERICA> <country>/
1. Canada/
  2. USA/
  3. Mexico/
- #1166. <Subarctic America: 1>/
1. <ALU> Aleutian Is/
  2. <ASK> Alaska/
  3. <YUK> Yukon/
  4. <NWT> Northwest Territories/
  5. <NUN> Nunavut/
  6. <GNL> Greenland/
- #1167. <Western Canada: 2>/
1. <ABT> Alberta/
  2. <BRC> British Columbia/
  3. <MAN> Manitoba/
  4. <SAS> Saskatchewan/
- #1168. <Eastern Canada: 3>/
1. <LAB> Labrador/
  2. <NBR> New Brunswick/
  3. <NFL> Newfoundland/
  4. <NSC> Nova Scotia/
  5. <ONT> Ontario/
  6. <PEI> Prince Edward I/
  7. <QUE> Quebec/
- #1169. <Northwestern U.S.A.: 4>/
1. <COL> Colorado/
  2. <IDA> Idaho/
  3. <MNT> Montana/
  4. <ORE> Oregon/
  5. <WAS> Washington/
  6. <WYO> Wyoming/
- #1170. <North-Central U.S.A.: 5>/
1. <ILL> Illinois/
  2. <IOW> Iowa/
  3. <KAN> Kansas/
  4. <MIN> Minnesota/
  5. <MSO> Missouri/
  6. <NDA> North Dakota/
  7. <NEB> Nebraska/
  8. <OKL> Oklahoma/
  9. <SDA> South Dakota/
  10. <WIS> Wisconsin/
- #1171. <Northeastern U.S.A.: 6>/
1. <CNT> Connecticut/
  2. <INI> Indiana/
  3. <MAI> Maine/
  4. <MAS> Massachusetts/
  5. <MIC> Michigan/
  6. <OHI> Ohio/
  7. <NWH> New Hampshire/
  8. <NWJ> New Jersey/
  9. <NWY> New York/
  10. <PEN> Pennsylvania/
  11. <RHO> Rhode Island/
  12. <VER> Vermont/
  13. <WVA> West Virginia/
- #1172. <Southwestern U.S.A.: 7>/
1. <ARI> Arizona/
  2. <CAL> California/

3. <NEV> Nevada/
  4. <UTA> Utah/
- #1173. <South-Central U.S.A: 8>/
1. <NWM> New Mexico/
  2. <TEX> Texas <Gould>/
- #1174. <Southeastern U.S.A.: 9>/
1. <ALA> Alabama/
  2. <ARK> Arkansas/
  3. <DEL> Delaware/
  4. <FLA> Florida/
  5. <GEO> Georgia/
  6. <KTY> Kentucky/
  7. <LOU> Louisiana/
  8. <MRY> Maryland/
  9. <MSI> Mississippi/
  10. <NCA> North Carolina/
  11. <SCA> South Carolina/
  12. <TEN> Tennessee/
  13. <VRG> Virginia/
  14. <WDC> District of Columbia/
- #1175. <SOUTH AMERICA Southern South America: Argentina & Chile>/
1. Argentina/
  2. Chile/
- #1176. <Mesoamerica: 1> <Davidse et al>/
1. Belize/
  2. Costa Rica/
  3. C.American Pacific Is/
  4. El Salvador/
  5. Guatemala/
  6. Honduras/
  7. Nicaragua/
  8. Panama/
- #1177. <Caribbean: 2>/
1. <ARU> Aruba/
  2. <BAH> Bahamas/
  3. <BER> Bermuda/
  4. <CAY> Cayman Is/
  5. <CUB> Cuba/
  6. <DOM> Dominican Republic/
  7. <HAI> Haiti/
  8. <JAM> Jamaica <Adams>/
  9. <LEE> Leeward Is/
  10. <WIN> Windward Islands/
  11. <PUE> Puerto Rico/
  12. <SWC> Southwest Caribbean/
  13. <TCI> Turks-Caicos Is/
  14. <TRT> Trinidad-Tobago/
  15. <VNA, NLA> Venezuelan and Netherlands Antilles/
- #1178. <Northern South America: 3>/
1. <FRG> French Guiana/
  2. <GUY> Guyana/
  3. <SUR> Surinam/
  4. <VEN> Venezuela/
- #1179. <Western South America: 4>/
1. <BOL> Bolivia <Renvoize +>/
  2. <CLM> Colombia/
  3. <ECU> Ecuador <Jorgensen & Leon-Yanez, CNWG>/
  4. <GAL> Galapagos <Jorgensen & Leon-Yanez>/
  5. <PER> Peru/
- #1180. <Southern South America: 6>/

1. <AGE> Argentina Northeast/
  2. <ARG> Argentina South <Cabrera, Burkat>/
  3. <ARW> Argentina Northwest/
  4. <CLN> Chile North/
  5. <CLC> Chile Central/
  6. <CLS> Chile South/
  7. <DSV> Desventurados Is/
  8. <JNF> Juan Fernandez Is/
  9. <PAR> Paraguay <Zuloaga et al>/
  10. <URU> Uruguay <Rosengurt>/
- #1181. <Brazil: 5>/
1. <BZC> Brazil West Central <Distrito Federal DF, Mato Grosso MT, Goias GO, Mato Grosso do Sul MS>/
  2. <BZE> Brazil Northeast <Alagoas AL, Bahia BA, Ceara CE, Fernando do Noronha FN, Maranhao MA, Pernambuco PE, Paraiba PA, Piaui PI, Sergipe SE>/
  3. <BZL> Brazil Southeast <Espirito Santo ES, Minas Gerais MS, Rio de Janeiro RJ, Sao Paulo SP, Trindade TD (Wanderley et al)>/
  4. <BZN> Brazil North <Acre AC, Amapa AP, Amazonas AM, Para PA, Roraima RR, Rondonia RO, Tocantins TO>/
  5. <BZS> Brazil South <Parana PR, Rio Grande do Sul RS, Santa Catarina SC>/
- #1182. <ANTARCTICA Subantarctic Islands: 1>/
1. <ASP> Amsterdam-St Paul Is/
  2. <BOU> Bouvet I/
  3. <CRZ> Crozet Is/
  4. <FAL> Falkland Is (Malvinas)/
  5. <HMD> Heard-McDonald Is/
  6. <KEG> Kerguelen/
  7. <MAQ> Macquarie Is/
  8. <MPE> Marion-Prince Edward Is/
  9. <SGE> South Georgia/
  10. <SSA> South Sandwich Is/
  11. <TDC> Tristan de Cunha/
- #1183. <Antarctic Continent: 2>/
1. <ANT> Antarctica/
- #1184. <TDWG4 Coding>/
1. **TDWG4**/
  2. not coded/
- #1185. "Soviet Union"/
1. European Russia/
  2. Caucasus/
  3. Western Siberia/
  4. Eastern Siberia/
  5. Far East/
  6. Central Asia/
- #1186. European Russia/
1. Arctic/
  2. Kola/
  3. Karelia/
  4. Baltic/
  5. Ladoga-Ilmen/
  6. Divina-Pechora/
  7. Upper Dniepr/
  8. Upper Volga/
  9. Volga-Kama/
  10. Ural/
  11. Carpathians/
  12. Middle Dniepr/
  13. Volga-Don/
  14. Transvolga/
  15. Moldavia/

- 16. Black Sea/
- 17. Lower Don/
- 18. Lower Volga/
- 19. Crimea/
- #1187. Caucasus/
  - 1. Ciscaucasia/
  - 2. Dagestan/
  - 3. The Great Caucasus/
  - 4. Western Transcaucasia/
  - 5. Eastern Transcaucasia/
  - 6. Southern Transcaucasia/
  - 7. Talysh/
- #1188. Western Siberia/
  - 1. Arctic/
  - 2. Ob/
  - 3. Upper Tobol/
  - 4. Irtysh/
  - 5. Altai/
- #1189. Eastern Siberia/
  - 1. Arctic/
  - 2. Enisei/
  - 3. Lena-Kolyma/
  - 4. Angara-Sayan/
  - 5. Dauria/
- #1190. Far East/
  - 1. Arctic/
  - 2. Kamchatka/
  - 3. Okhotsk/
  - 4. Uda/
  - 5. Zee-Bureya/
  - 6. Ussuri/
  - 7. Sakhalin/
  - 8. Kuril/
- #1191. Central Asia/
  - 1. Aral-Caspian/
  - 2. Balkhash/
  - 3. Jungaria-Tarbagatai/
  - 4. Tien-Shan/
  - 5. Kyzylkum/
  - 6. Syr Darya/
  - 7. Amu Darya/
  - 8. Gissar-Darvaz/
  - 9. Alai/
  - 10. Pamir/
  - 11. Turkmenia/
- #1192. Inner Mongolia/
  - 1. Nei Mongol <NM>/
  - 2. Ningxia <NX>/
- #1193. Manchuria/
  - 1. Heilongjiang <HJ>/
  - 2. Jilin <JL>/
  - 3. Liaoning <LN>/
- #1194. China North-Central/
  - 1. Beijing <BJ>/
  - 2. Gansu <GS>/
  - 3. Hebei <HB>/
  - 4. Shaanxi <SA>/
  - 5. Shandong <SD>/
  - 6. Shanxi <SX>/
  - 7. Tianjin <TJ>/

#1195. China Southeast/

1. Anhui <AN>/
2. Fujian <FJ>/
3. Guangdong <GD>/
4. Guangxi <GX>/
5. Henan <HE>/
6. Hong Kong <HK>/
7. Hunan <HU>/
8. Jiangsu <JS>/
9. Jiangxi <JX>/
10. Kin-Men <KM>/
11. Macau <MA>/
12. Ma-tu-Pai-chian <MP>/
13. Shanghai <SH>/
14. Zhejiang <ZJ>/

#1196. China South-Central/

1. Chongqing <CQ>/
2. Guizhou <GZ>/
3. Hubei <HU>/
4. Sichuan <SI>/
5. Yunnan <YN>/

#1197. East Himalaya/

1. <AP> Arunachal Pradesh/
2. <DJ> Darjeeling/
3. <BH> Bhutan/
4. <SI> Sikkim/

#1198. Assam/

1. <AS> Assam/
2. <MA> Manipur/
3. <ME> Meghalaya/
4. <MI> Mizoram/
5. <NA> Nagaland/
6. <TR> Tripura/

#1199. India a to k/

1. <AP> Andhra Pradesh/
2. <BI> Bihar/
3. <CH> Chandigarh/
4. <CT> Chattisgarh/
5. <DD> Dadra-Nagar-Haveli/
6. <DE> Delhi/
7. <DI> Diu/
8. <DM> Daman/
9. <GO> Goa/
10. <GU> Gujarat/
11. <HA> Haryana/
12. <JK> Jharkhand/
13. <KE> Kerala/
14. <KL> Karaikal/
15. <KT> Karnataka/

#1200. India l to z/

1. <MH> Mahe/
2. <MP> Madhya Pradesh/
3. <MR> Maharashtra/
4. <OR> Orissa/
5. <PO> Pondicherry/
6. <PU> Punjab/
7. <RA> Rajasthan/
8. <TN> Tamilnadu/
9. <UP> Uttah Pradesh/
10. <WB> West Bengal/

11. <YA> Yanam/  
 #1201. West Himalaya/  
 1. <HP> Himachal Pradesh/  
 2. <JK> Jammu Kashmir/  
 3. <UT> Uttaranchal/  
 #1202. Western Australia/  
 1. Kimberley/  
 2. Ereman/  
 3. South-West/  
 #1203. Northern Territory/  
 1. Darwin & Gulf/  
 2. Victoria R & Barkly Tableland/  
 3. Central Australia/  
 #1204. South Australia/  
 1. NW & Lake Eyre/  
 2. Southern/  
 #1205. Queensland/  
 1. North/  
 2. Central/  
 3. South East/  
 4. Inland/  
 #1206. NSW/  
 1. Coast/  
 2. Tablelands/  
 3. Western Slopes/  
 4. Western Plains/  
 #1207. <Cope Brazil\_Regions:>/  
 1. <173> Roraima <N>/  
 2. <174> Para, Amapa <N>/  
 3. <175> Amazonas, Acre, Rondonia <N>/  
 4. <176> Mato Grosso <C>/  
 5. <177> Goias <C>/  
 6. <178> Bahia <NE>/  
 7. <179> Maranhao, Piaui <NE>/  
 8. <180> Ceara, Rio Grande do Norte, Paraiba, Penambuco, Alagoas, Sergipe <NE>/  
 9. <181> Minas Gerais, Rio de Janeiro, Espirito Santo <SE>/  
 10. <182> Sao Paulo <SE> Parana <S>/  
 11. <183> Catarina, Rio Grande do Sul <S>/  
 #1208. <Brazil West-Central>/  
 1. Distrito Federal <DF>/  
 2. Mato Grosso <MT>/  
 3. Goias <GO>/  
 4. Mato Grosso do Sul <MS>/  
 #1209. <Brazil Northeast>/  
 1. Alagoas <AL>/  
 2. Bahia <BA (Renvoize)>/  
 3. Ceara <CE>/  
 4. Fernando do Noronha <FN>/  
 5. Maranhao <MA>/  
 6. Pernambuco <PE>/  
 7. Paraiba <PA>/  
 8. Paiui <PI>/  
 9. Sergipe <SE>/  
 #1210. <Brazil Southeast>/  
 1. Espirito Santo <ES>/  
 2. Minas Gerais <MS>/  
 3. Rio de Janeiro <RJ>/  
 4. Sao Paulo <SP>/  
 5. Trindade <TR>/  
 #1211. <Brazil North>/

1. Acre <AC>/
  2. Amapa <AP>/
  3. Amazonas <AM>/
  4. Para <PA>/
  5. Roaima <RM>/
  6. Rondonia <RO>/
  7. Tocantins <TO>/
- #1212. <Brazil South>/
1. Parana <PR>/
  2. Rio Grande do Sul <RS>/
  3. Santa Catarina <SC>/
- #1213. Argentina Northwest/
1. Catamarca <CAT>/
  2. Jujuy <JUJ>/
  3. La Rioja <LRI>/
  4. Mendoza <MEN>/
  5. Salta <SAL>/
  6. Santiago del Estero <SDE>/
  7. San Juan <SJU>/
  8. San Luis <SLU>/
  9. Tucuman <TUC>/
- #1214. Argentina Northeast/
1. Buenos Aires <BAI>/
  2. Chaco <CHA>/
  3. Cordoba <COR>/
  4. Corrientes <COS>/
  5. Distrito Federal <DFE>/
  6. Entre Rios <ERI>/
  7. Formosa <FOR>/
  8. La Pampa <LPA>/
  9. Misiones <MIS>/
  10. Santa Fe <SFE>/
- #1215. Argentina South/
1. Chubut <CHU>/
  2. Neuquén <NEU>/
  3. Río Negro <RNE>/
  4. Santa Cruz <SCR>/
  5. Tierra del Fuego <TDF>/
- #1216. <Cope Chile Regions>/
1. <203> Tarapaca, Antofagasta, Atacama, Coquimbo/
  2. <204> Rest of Chile- Biobio, La Auracania, Maule, O'Higgins, Santado, Valpariso/
  3. <205> Chiloe, Aisen, Magellanes/
- #1217. Chile North/
1. Tarapaca <I>/
  2. Antofagasta <II>/
  3. Atacama <III>/
- #1218. Chile Central/
1. Coquimbo <IV>/
  2. Valparaiso <V>/
  3. Santiago <RME>/
  4. O'Higgins <VI>/
  5. Maule <VII>/
  6. Biobio <VIII>/
  7. La Araucania <IX>/
- #1219. Chile South/
1. Los Lagos <X>/
  2. Aisen <XI>/
  3. Magellanes <XII>/
- #1220. Mexico/
1. <MXC> Mexico Central/

- 2. <MXE> Mexico Northeast/
- 3. <MXG> Mexico Gulf/
- 4. <MXI> Mexican Pacific Is/
- 5. <MXN> Mexico Northwest/
- 6. <MXS> Mexico Southwest/
- 7. <MXT> Mexico Southeast/
- #1221. Mexico Central/
  - 1. Distrito Federal <DF>/
  - 2. Mexico State <MEX>/
  - 3. Morelos <MOR>/
  - 4. Puebla <PUE>/
  - 5. Tlaxcala <TLA>/
- #1222. Mexico Gulf/
  - 1. Veracruz <VER>/
- #1223. Mexico Northeast/
  - 1. Aguascalientes <AGS>/
  - 2. Coahuila <COA>/
  - 3. Chihuahua <CHIH>/
  - 4. Durango <DUR>/
  - 5. Guanajuato <GTO>/
  - 6. Hidalgo <HGO>/
  - 7. Neuvo Leon <NL>/
  - 8. Queretaro <QRO>/
  - 9. San Luis Potosi <SLP>/
  - 10. Tamaulipas <TAMP>/
  - 11. Zacatecas <ZAC>/
- #1224. Mexico Pacific Is/
  - 1. Guadalupe Is/
  - 2. Roscas Alijos/
  - 3. Revillagigedo Is/
- #1225. Mexico Northwest/
  - 1. Baja California <BC>/
  - 2. Baja California Sur <BCS>/
  - 3. Sinaloa <SIN>/
  - 4. Sonora <SON>/
- #1226. Mexico Southwest/
  - 1. Colima <COL>/
  - 2. Guerrero <GRO>/
  - 3. Jalisco <JAL>/
  - 4. Michoacan <MICH>/
  - 5. Nayarit <NAY>/
  - 6. Oaxaca <OAX>/
- #1227. Mexico Southeast/
  - 1. Campeche <CAMP>/
  - 2. Chiapas <CHIS>/
  - 3. Quintana Roo <QR>/
  - 4. Tabasco <TAB>/
  - 5. Yucatan <YUC>/
- #1228. <Presence in selected countries; TDWG 3-letter code>/
- #1229. <Familiar> synonyms <in current use>/
- #1230. **Main references:** <taxonomic revisions, nomenclatural references>/
- #1231. <Comment on diagnostic characters - level 1>/
- #1232. <Comment on diagnostic characters - level 2>/
- #1233. <Comment on diagnostic characters - level 3>/
- #1234. Entry changed by <flag to denote changes made since last update. Remember to alter source-of-coding character.>/
  - 1. adding new item/
  - 2. replacing description/
  - 3. adding illustration/
  - 4. changing name <from what?>/

5. deleting synonymous item <this one, or its incorrect synonym?>/
- #1235. Reference for coding:/
- #1236. Conservation status:/
1. presumed extinct/
  2. endangered/
  3. vulnerable/
  4. rare/
  5. poorly known/
  6. out of danger/
  7. not known/
  8. not threatened/
- #1237. Date of last collection <if last character has states 1-5>/
- #1238. Distribution status: <for rare and threatened>/
1. known only from type collection/
  2. geographic range less than 100km/
  3. geographic range greater than 100km/
- #1239. Flowering and fruiting/
- #1240. Vegetation/
- #1241. Soils:/
- #1242. <Whether weedy>/
1. native <implicit>/
  2. naturalised/
- #1243. From <area of origin for naturalised taxa>/
- #1244. <Whether aquatic>/
1. aquatic/
  2. terrestrial <implicit>/
- #1245. Cultivars/
- #1246. <Illustrations>/
- #1247. Genera A-Af/
1. Achlaena/
  2. Achnatherum/
  3. x Achnella/
  4. Aciachne/
  5. Acidosasa/
  6. Acostia/
  7. Acrachne/
  8. Acritochaete/
  9. Acroceras/
  10. Actinocladum/
  11. Aegilops/
  12. Aegopogon/
  13. Aeluropus/
  14. Afrotrichloris/
- #1248. Genera Ag-Ai/
1. Agenium/
  2. Agnesia/
  3. x Agroelymus/
  4. Agropogon/
  5. Agropyron/
  6. Agropyropsis/
  7. Agrostis/
  8. Agrostioidea/
  9. Agrostopoa/
  10. Aira/
  11. Airopsis/
- #1249. Genera Al-Am/
1. Alexfloydia/
  2. Allochaete/
  3. Allolepis/
  4. Alloteropsis/

- 5. *Alpecurus*/
- 6. *Altoparadisium*/
- 7. *Alvimia*/
- 8. *Amelichloa*/
- 9. *Ammocalamagrostis*/
- 10. *Ammochloa*/
- 11. *Ammophila*/
- 12. *Ampelocalamus*/
- 13. *Ampelodesmos*/
- 14. *Amphibromus*/
- 15. *Amphicarpum*/
- 16. *Amphipogon*/
- #1250. Genera An/
  - 1. *Anadelphia*/
  - 2. *Anatherostipa*/
  - 3. *Ancistrachne*/
  - 4. *Ancistragrostis*/
  - 5. *Andropogon*/
  - 6. *Andropterum*/
  - 7. *Anemanthele*/
  - 8. *Aniselytron*/
  - 9. *Anisopogon*/
  - 10. *Anomochloa*/
  - 11. *Anthaeantiopsis*/
  - 12. *Anthenantia*/
  - 13. *Anthephora*/
  - 14. *Anthochloa*/
  - 15. *Anthosachne*/
  - 16. *Anthoxanthum*/
- #1251. Genera An-Ap/
  - 1. *Antinoria*/
  - 2. *Apera*/
  - 3. *Aphanelytrum*/
  - 4. *Apluda*/
  - 5. *Apochiton*/
  - 6. *Apochloa*/
  - 7. *Apoclada*/
  - 8. *Apocopsis*/
- #1252. Genera Ar/
  - 1. *Arberella*/
  - 2. *Arctagrostis*/
  - 3. *Arctophila*/
  - 4. *Aristida*/
  - 5. *Arrhenatherum*/
  - 6. *Arthragrostis*/
  - 7. *Arthraxon*/
  - 8. *Arthropogon*/
  - 9. *Arthrostylidium*/
  - 10. *Arundinaria*/
  - 11. *Arundinella*/
  - 12. *Arundo*/
  - 13. *Arundoclaytonia*/
- #1253. Genera As-Ax/
  - 1. *Asthenochloa*/
  - 2. *Astrebla*/
  - 3. *Athroostachys*/
  - 4. *Atractantha*/
  - 5. *Aulonemia*/
  - 6. *Australopyrum*/
  - 7. *Austrochloris*/

- 8. *Austroderia*/
- 9. *Austrostipa*/
- 10. *Avellinia*/
- 11. *Avena*/
- 12. *Avenella*/
- 13. *Axonopus*/
- #1254. Genera Ba-Bo/
  - 1. *Bambusa*/
  - 2. *Baptorhachis*/
  - 3. *Bashania*/
  - 4. *Bealia*/
  - 5. *Beckmannia*/
  - 6. *Bewsia*/
  - 7. *Bhidea*/
  - 8. *Blepharidacne*/
  - 9. *Blepharoneuron*/
  - 10. *Boissiera*/
  - 11. *Bonia*/
  - 12. *Borinda*/
  - 13. *Bothriochloa*/
  - 14. *Bouteloua*/
- #1255. Genera Br-Bu/
  - 1. *Brachyachne*/
  - 2. *Brachychoa*/
  - 3. *Brachelytrum*/
  - 4. *Brachypodium*/
  - 5. *Briza*/
  - 6. *Bromidium*/
  - 7. *Bromuniola*/
  - 8. *Bromus*/
  - 9. *Brylkinia*/
  - 10. *Buchloe*/
  - 11. *Buchlomimus*/
  - 12. *Buergersiochloa*/
- #1256. Genera Ca/
  - 1. *Calamagrostis*/
  - 2. *Calamovilfa*/
  - 3. *Calotheca*/
  - 4. *Calyptochloa*/
  - 5. *Campeoistachys*/
  - 6. *Camusiella*/
  - 7. *Canastra*/
  - 8. *Capeochloa*/
  - 9. *Capillipedium*/
  - 10. *Castellia*/
  - 11. *Catabrosa*/
  - 12. *Catalepis*/
  - 13. *Catapodium*/
  - 14. *Cathariostachys*/
  - 15. *Cathestecum*/
- #1257. Genera Ce/
  - 1. *Celtica*/
  - 2. *Cenchrus*/
  - 3. *Centotheca*/
  - 4. *Centrochloa*/
  - 5. *Centropodia*/
  - 6. *Cephalostachyum*/
- #1258. Genera Cha-Chi/
  - 1. *Chaboissaea*/
  - 2. *Chaetium*/

3. Chaetobromus/
  4. Chaetopoa/
  5. Chaetopogon/
  6. Chamaeraphis/
  7. Chandrasekharania/
  8. Chascolytrum/
  9. Chasmanthium/
  10. Chasmopodium/
  11. Chevalierella/
  12. Chikusichloa/
  13. Chimaerochloa/
  14. Chimonobambusa/
  15. Chimonocalamus/
  16. Chionachne/
  17. Chionochloa/
- #1259. Genera Chl-CI/
1. Chloris/
  2. Chlorocalymma/
  3. Chrysochloa/
  4. Chrysopogon/
  5. Chusquea/
  6. Cinna/
  7. Cladoraphis/
  8. Clausospicula/
  9. Cleistachne/
  10. Cleistochloa/
  11. Cleistogenes/
- #1260. Genera Co/
1. Coelachne/
  2. Coelachyrum/
  3. Coix/
  4. Colantheria/
  5. Coleanthus/
  6. Colpodium/
  7. Connorochloa/
  8. Cornucopiae/
  9. Cortaderia/
  10. Corynephorus/
  11. Cottea/
- #1261. Genera Cr-Cu/
1. Craspedorhachis/
  2. Crinipes/
  3. Crithopsis/
  4. Crypsis/
  5. Cryptochloa/
  6. Ctenium/
  7. Cutandia/
- #1262. Genera Cy/
1. Cyathopus/
  2. Cyclostachya/
  3. Cymbopogon/
  4. x Cynochloris/
  5. Cynodon/
  6. Cynosurus/
  7. Cyperochloa/
  8. Cyphochlaena/
  9. Cyphonanthus/
  10. Cyrtochloa/
  11. Cyrtococcum/
- #1263. Genera Da/

1. *Dactylis*/
  2. *Dactyloctenium*/
  3. *Dallwatsonia*/
  4. *Danthonia*/
  5. *Danthonidium*/
  6. *Danthoniopsis*/
  7. *Dasyochloa*/
  8. *Dasyopyrum*/
  9. *Davidsea*/
- #1264. Genera De-
1. *Decaryella*/
  2. *Decaryochloa*/
  3. *Dendrocalamus*/
  4. *Deschampsia*/
  5. *Desmazeria*/
  6. *Desmostachya*/
  7. *Deyeuxia*/
- #1265. Genera Dia-Dil-
1. *Diandrolyra*/
  2. *Diarrhena*/
  3. *Dichaetaria*/
  4. *Dichantherium*/
  5. *Dichanthium*/
  6. *Dichelachne*/
  7. *Dielsiochloa*/
  8. *Digitaria*/
  9. *Dignathia*/
  10. *Diheteropogon*/
  11. *Dilophotriche*/
- #1266. Genera Dim-Du-
1. *Dimeria*/
  2. *Dinebra*/
  3. *Dinochloa*/
  4. *Diplopogon*/
  5. *Dissantherium*/
  6. *Dissochondrus*/
  7. *Distichlis*/
  8. *Douglasdeweya*/
  9. *Drake-Brockmania*/
  10. *Dregeochloa*/
  11. *Drepanostachyum*/
  12. *Dryopoa*/
  13. *xDupoa*/
  14. *Dupontia*/
  15. *Duthica*/
- #1267. Genera Ec-El-
1. *Eccoptocarpha*/
  2. *Echinaria*/
  3. *Echinochloa*/
  4. *Echinolaena*/
  5. *Echinopogon*/
  6. *Ectrosia*/
  7. *Ehrharta*/
  8. *Ekmanochloa*/
  9. *Eleusine*/
  10. *Elionurus*/
  11. *Elyhordeum*/
  12. *Elyleymus*/
  13. *Elymandra*/
  14. *Elymus*/

- 15. Elytrigia/
- 16. Elytrophorus/
- 17. Elytrostachys/
- #1268. Genera Enn-Erio/
  - 1. Enneapogon/
  - 2. Enteropogon/
  - 3. Entolasia/
  - 4. Entoplacamia/
  - 5. Eragrostiella/
  - 6. Eragrostis/
  - 7. Eremitis/
  - 8. Eremocaulon/
  - 9. Eremochloa/
  - 10. Eremopoa/
  - 11. Eremopyrum/
  - 12. Eriachne/
  - 13. Erianthecium/
  - 14. Erianthus/
  - 15. Eriochloa/
- #1269. Genera Erio-Fin/
  - 1. Eriochrysis/
  - 2. Erioneuron/
  - 3. Euclasta/
  - 4. Eulalia/
  - 5. Eulaliopsis/
  - 6. Eustachys/
  - 7. Exotheca/
  - 8. Fargesia/
  - 9. Farrago/
  - 10. Ferrocalamus/
  - 11. Festuca/
  - 12. Festucopsis/
  - 13. x Festulolium/
  - 14. Filguerasia/
  - 15. Fimbribambusa/
  - 16. Fingerhuthia/
- #1270. Genera Fil-Gi/
  - 1. Froesiochloa/
  - 2. Gaoligongshania/
  - 3. Garnotia/
  - 4. Gastridium/
  - 5. Gaudinia/
  - 6. Gelidocalamus/
  - 7. Geochloa/
  - 8. Germainia/
  - 9. Gerritea/
  - 10. Gigantochloa/
  - 11. Gilgiochloa/
- #1271. Genera Gla-Gy/
  - 1. Glaziophyton/
  - 2. Glyceria/
  - 3. Glyphochloa/
  - 4. Gouinia/
  - 5. Graphephorum/
  - 6. Greslania/
  - 7. Guadua/
  - 8. Guaduella/
  - 9. Gymnachne/
  - 10. Gymnopogon/
  - 11. Gynerium/

## #1272. Genera Ha-He/

1. Habrochloa/
2. Hainardia/
3. Hakonechloa/
4. Halopyrum/
5. Harpachne/
6. Harpochloa/
7. Helictotrichon/
8. Hemarthria/
9. Hemisorghum/
10. Henrardia/
11. Hesperostipa/
12. Heterachne/
13. Heterantheium/
14. Heteranthoecia/
15. Heteropogon/

## #1273. Genera Hi-Ho/

1. Hickelia/
2. Hierochloe/
3. Hilaria/
4. Himalayacalamus/
5. Hitchcockella/
6. Holcolemma/
7. Holcus/
8. Holttumochloa/
9. Homolepis/
10. Homopholis/
11. Homozeugos/
12. Hookerchloa/
13. Hopia/
14. Hordelymus/
15. Hordeum/

## #1274. Genera Hu-Hy/

1. Hubbardia/
2. Humbertochloa/
3. Hydrothauma/
4. Hygrochloa/
5. Hygroryza/
6. Hylebates/
7. Hymenachne/
8. Hyparrhenia/
9. Hyperthelia/
10. Hypseochloa/
11. Hystrix/

## #1275. Genera I-J/

1. Ichnanthus/
2. Imperata/
3. Indocalamus/
4. Indopoa/
5. Indosasa/
6. Isachne/
7. Ischaemum/
8. Iseilema/
9. Ixophorus/
10. Jansenella/
11. Jarava/
12. Jouvea/

## #1276. Genera K-La/

1. Kampochloa/
2. Kaokochloa/

3. Kengyilia/
  4. Kerriochloa/
  5. Kinabaluchloa/
  6. Koeleria/
  7. Lachnagrostis/
  8. Lagurus/
  9. Lamarckia/
  10. Lasiacis/
  11. Lasiurus/
- #1277. Genera Le/
1. Lecomtella/
  2. Leersia/
  3. Leptagrostis/
  4. Leptaspis/
  5. Leptocarydion/
  6. Leptochloa/
  7. Leptophyllochloa/
  8. Leptothrium/
  9. Lepturidium/
  10. Lepturopetium/
  11. Lepturus/
  12. Leucopoa/
  13. x Leydeum/
  14. Leymus/
- #1278. Genera Li-Lop/
1. Libyella/
  2. Limnas/
  3. Limnodea/
  4. Limnopoa/
  5. Lindbergella/
  6. Lindbergia/
  7. Lintonia/
  8. Lithachne/
  9. Litledalea/
  10. Lolium/
  11. Lolium/
  12. Lophacme/
  13. Lophatherum/
  14. Lopholepis/
  15. Lophopogon/
  16. Lophopyrum/
- #1279. Genera Lou-Ly/
1. Loudetia/
  2. Loudetiopsis/
  3. Louisiella/
  4. Loxodera/
  5. Luziola/
  6. Lycochloa/
  7. Lycurus/
  8. Lygeum/
- #1280. Genera Ma-Mer/
1. Maclurochloa/
  2. Macruolyra/
  3. Maltebrunia/
  4. Manisuris/
  5. Megalachne/
  6. Megaloprotachne/
  7. Megastachya/
  8. Megathyrsus/
  9. Melanocenchris/

- 10. Melica/
- 11. Melinis/
- 12. Melocalamus/
- 13. Melocanna/
- 14. Merostachys/
- 15. Merxmuellera/
- #1281. Genera Mes-Mi/
  - 1. Mesosetum/
  - 2. Metcalfia/
  - 3. Mibora/
  - 4. Micraira/
  - 5. Microcalamus/
  - 6. Microchloa/
  - 7. Microlaena/
  - 8. Micropyropsis/
  - 9. Micropyrum/
  - 10. Microstegium/
  - 11. Miliium/
  - 12. Miscanthus/
- #1282. Genera Mn-Na/
  - 1. Mnesithea/
  - 2. Mniochloa/
  - 3. Molinia/
  - 4. Monachather/
  - 5. Monanthochloe/
  - 6. Monelytrum/
  - 7. Monocymbium/
  - 8. Monodia/
  - 9. Moorochloa/
  - 10. Mosdenia/
  - 11. Muhlenbergia/
  - 12. Mullerochloa/
  - 13. Munroa/
  - 14. Myriocladus/
  - 15. Myriostachya/
  - 16. Narduroides/
- #1283. Genera Na-Ni/
  - 1. Nardus/
  - 2. Nassella/
  - 3. Nastus/
  - 4. Neesiochloa/
  - 5. Nematopoa/
  - 6. Neobouteloua/
  - 7. Neohouzeaua/
  - 8. Neololeba/
  - 9. Neomicrocalamus/
  - 10. Neostapfia/
  - 11. Neostapfiella/
  - 12. Nephelochloa/
  - 13. Neurachne/
  - 14. Neurolepis/
  - 15. Neyraudia/
  - 16. Nicoraepoa/
- #1284. Genera No-Ord/
  - 1. Notochloe/
  - 2. Ocellochloa/
  - 3. Ochlandra/
  - 4. Ochthochloa/
  - 5. Odontelytrum/
  - 6. Odyssea/

- 7. Oligostachyum/
- 8. Olmeca/
- 9. Olyra/
- 10. Oncorachis/
- 11. Ophiochloa/
- 12. Ophiuros/
- 13. Opizia/
- 14. Oplismenopsis/
- 15. Oplismenus/
- 16. Orcuttia/
- #1285. Genera Ore-Ox/
  - 1. Oreobambos/
  - 2. Oreochloa/
  - 3. Oreopoa/
  - 4. Orinus/
  - 5. Oropetium/
  - 6. Ortachne/
  - 7. Orthoclada/
  - 8. Oryza/
  - 9. Oryzidium/
  - 10. Oryzopsis/
  - 11. Otachyrium/
  - 12. Otatea/
  - 13. Ottochloa/
  - 14. Oxychloris/
  - 15. Oxyrhachis/
  - 16. Oxytenanthera/
- #1286. Genera Pa/
  - 1. Panicum/
  - 2. Pappophorum/
  - 3. Pappostipa/
  - 4. Parabambusa/
  - 5. Paractaenum/
  - 6. Parafestuca/
  - 7. Parahyparrhenia/
  - 8. Paraneurachne/
  - 9. Parapholis/
  - 10. Paratheria/
  - 11. Pariana/
  - 12. Parodiolyra/
  - 13. Parodiophyllochloa/
  - 14. X Pascoelymus/
  - 15. Pascopyrum/
  - 16. Paspalidium/
  - 17. Paspalum/
- #1287. Genera Pe/
  - 1. Pennisetum/
  - 2. Pentameris/
  - 3. Pentapogon/
  - 4. Pereilema/
  - 5. Periballia/
  - 6. Peridictyon/
  - 7. Perotis/
  - 8. Perrierbambus/
  - 9. Peyritschia/
- #1288. Genera Ph/
  - 1. Phacelurus/
  - 2. Phaenanthoecium/
  - 3. Phaenosperma/
  - 4. Phalaris/

5. Phanopyrum/
  6. Pharus/
  7. Pheidochloa/
  8. Phippsia/
  9. Phleum/
  10. Pholiurus/
  11. Phragmites/
  12. Phyllorachis/
  13. Phyllosasa/
  14. Phyllostachys/
- #1289. Genera Pi-Pl/
1. Pinga/
  2. Piptatherum/
  3. Piptochaetium/
  4. Piptophyllum/
  5. Piresia/
  6. Piresiella/
  7. Plagiantha/
  8. Plagiosetum/
  9. Pleioblastus/
  10. Pleuropogon/
  11. Plinthanthesis/
- #1290. Genera Poa-Pol/
1. Poa/
  2. Poagrostis/
  3. Podagrostis/
  4. Podophorus/
  5. Poecilostachys/
  6. Pogonachne/
  7. Pogonarthria/
  8. Pogonatherum/
  9. Pogonochloa/
  10. Pogononeura/
  11. Pohlidium/
  12. Poidium/
  13. Plevansii/
  14. Polypogon/
  15. Polytoca/
  16. Polytrias/
- #1291. Genera Pom-Pseude/
1. Pommeruella/
  2. Porteresia/
  3. Potamophila/
  4. Prospytochloa/
  5. Psammagrostis/
  6. Psammochloa/
  7. Psathyrostachys/
  8. Pseudanthistiria/
  9. Pseudechinolaena/
- #1292. Genera Pseudo/
1. Pseudochaetochloa/
  2. Pseudodanthonia/
  3. Pseudodichanthium/
  4. Pseudopentameris/
  5. Pseudopogonatherum/
  6. Pseudoraphis/
  7. Pseudoroegneria/
  8. Pseudosasa/
  9. Pseudosclerochloa/
  10. Pseudosorghum/

- 11. Pseudostachyum/
- 12. Pseudoxytenanthera/
- 13. Pseudozoysia/
- #1293. Genera Psi-Rel/
  - 1. Psilolemma/
  - 2. Psilurus/
  - 3. Ptilagrostis/
  - 4. Puccinellia/
  - 5. x Pucciphippsia/
  - 6. Puelia/
  - 7. Pyrrhanthera/
  - 8. Racemobambos/
  - 9. Raddia/
  - 10. Raddiella/
  - 11. Ratzeburgia/
  - 12. Redfieldia/
  - 13. Reederochloa/
  - 14. Rehia/
  - 15. Reimarochloa/
  - 16. Reitzia/
- #1294. Genera Rey-Ryt/
  - 1. Relchela/
  - 2. Renvoizea/
  - 3. Reynaudia/
  - 4. Rheochloa/
  - 5. Rhipidocladum/
  - 6. Rhizocephalus/
  - 7. Rhombolytrum/
  - 8. Rhynchoryza/
  - 9. Rhytachne/
  - 10. Richardsiella/
  - 11. Rostraria/
  - 12. Rottboellia/
  - 13. Rupichloa/
  - 14. Rytidosperma/
- #1295. Genera Sa-Scl/
  - 1. Saccharum/
  - 2. Sacciolepis/
  - 3. Sarga/
  - 4. Sartidia/
  - 5. Sasa/
  - 6. Saugetia/
  - 7. Saxipoa/
  - 8. Schaffnerella/
  - 9. x Schedolium/
  - 10. Schedonnardus/
  - 11. Schedonorus/
  - 12. Schismus/
  - 13. Schizachne/
  - 14. Schizachyrium/
  - 15. Schizostachyum/
  - 16. Schmidtia/
  - 17. Schoenefeldia/
  - 18. Sclerochloa/
- #1296. Genera Sc-Sim/
  - 1. Sclerodactylon/
  - 2. Scleropogon/
  - 3. Scolochloa/
  - 4. Scribneria/
  - 5. Scrotochloa/

- 6. Scutachne/
- 7. Secale/
- 8. Sehima/
- 9. Semiarundinaria/
- 10. Sesleria/
- 11. Setaria/
- 12. Setariopsis/
- 13. Shibataea/
- 14. Silentvalleya/
- 15. Simplicia/
- #1297. Genera Si-Sph/
  - 1. Sinarundinaria/
  - 2. Sinobambusa/
  - 3. Sinocalamus/
  - 4. Sirochloa/
  - 5. Sitanion/
  - 6. Snowdenia/
  - 7. Soderstromia/
  - 8. Sohnsia/
  - 9. Sorghastrum/
  - 10. Sorghum/
  - 11. Spartina/
  - 12. Spartochoa/
  - 13. Spathia/
  - 14. Sphaerobambos/
  - 15. Sphaerocaryum/
  - 16. Spheneria/
- #1298. Genus Sph-Str/
  - 1. Sphenopholis/
  - 2. Shenopus/
  - 3. Spinifex/
  - 4. Spodiopogon/
  - 5. Sporobolus/
  - 6. Steinchisma/
  - 7. Steirachne/
  - 8. Stenostachys/
  - 9. Stenotaphrum/
  - 10. Stephanachne/
  - 11. Stephostachys/
  - 12. Stereochlaena/
  - 13. Steyermarkochloa/
  - 14. Stiburus/
  - 15. Stipa/
  - 16. Stipagrostis/
  - 17. Streblochaete/
- #1299. Genera St-Sy/
  - 1. Streptogyna/
  - 2. Streptolophus/
  - 3. Streptostachys/
  - 4. Styppeoichloa/
  - 5. Sucrea/
  - 6. Suddia/
  - 7. Swallenia/
  - 8. Sylvipoa/
  - 9. Symplectrodia/
- #1300. Genera Ta-Thra/
  - 1. Taeniatherum/
  - 2. Taeniorhachis/
  - 3. Tarigidia/
  - 4. Tatianyx/

- 5. Temburongia/
- 6. Temochloa/
- 7. Tenacistachya/
- 8. Tenaxia/
- 9. Tetrachaete/
- 10. Tetrachne/
- 11. Tetrapogon/
- 12. Tetrarrhena/
- 13. Thamnocalamus/
- 14. Thaumastochloa/
- 15. Thedachloa/
- 16. Thelepogon/
- 17. Thellungia/
- 18. Themeda/
- 19. Thrasya/
- #1301. Genera Th-Trichon/
  - 1. Thinopyrum/
  - 2. Thrasyopsis/
  - 3. Thuarea/
  - 4. Thyridachne/
  - 5. Thyridolepis/
  - 6. Thyrsostachys/
  - 7. Thysanolaena/
  - 8. Tolaria/
  - 9. Torreyochloa/
  - 10. Tovarochloa/
  - 11. Trachypogon/
  - 12. Trachys/
  - 13. Tragus/
  - 14. Tribolium/
  - 15. Trichloris/
  - 16. Tricholaena/
- #1302. Genera Trich-Trir/
  - 1. Trichoneura/
  - 2. Trichopteryx/
  - 3. Tridens/
  - 4. Trikeriaia/
  - 5. Trilobachne/
  - 6. Triniochloa/
  - 7. Triodia/
  - 8. Triplachne/
  - 9. Triplasis/
  - 10. Triplopogon/
  - 11. Tripogon/
  - 12. Tripsacum/
  - 13. Triraphis/
- #1303. Genera Tris-Ur/
  - 1. Triscenia/
  - 2. Trisetaria/
  - 3. Trisetum/
  - 4. Tristachya/
  - 5. x Triticale/
  - 6. Triticum/
  - 7. Tuctoria/
  - 8. Uniola/
  - 9. Uranthoecium/
  - 10. Urelytrum/
  - 11. Urochloa/
  - 12. Urochondra/
- #1304. Genera V-W/

1. *Vacoparis*/
  2. *Vahlodea*/
  3. *Valiha*/
  4. *Vaseyochloa*/
  5. *Ventenata*/
  6. *Vietnamocalamus*/
  7. *Vietnamochloa*/
  8. *Vietnamosasa*/
  9. *Viguiella*/
  10. *Vossia*/
  11. *Vulpia*/
  12. *Vulpiella*/
  13. *Walwhalleya*/
  14. *Wangenheimia*/
  15. *Whiteochloa*/
  16. *Willkommia*/
- #1305. Genera X-Z/  
  1. *Xerochloa*/
  2. *Yakirra*/
  3. *Yushania*/
  4. *Yvesia*/
  5. *Zea*/
  6. *Zenkeria*/
  7. *Zeugites*/
  8. *Zingeria*/
  9. *Zizania*/
  10. *Zizaniopsis*/
  11. *Zonotriche*/
  12. *Zotovia*/
  13. *Zoysia*/
  14. *Zuloagaea*/
  15. *Zygochloa*/
- #1306. <Classification Genera> Subfamily <GPWG 2001 emended>/  
  1. *Anomochloideae*/
  2. *Pharoideae*/
  3. *Puelioideae*/
  4. *Bambusoideae*/
  5. *Ehrhartoideae*/
  6. *Pooideae*/
  7. *Aristidoideae*/
  8. *Arundinoideae*/
  9. *Danthonioideae*/
  10. *Centothecoideae*/
  11. *Panicoideae*/
  12. *Chloridoideae*/
  13. *Micraroideae*/
- #1307. <Classification Species> Subfamily <GPWG 2001>/  
  1. *Anomochlooideae*/
  2. *Pharoideae*/
  3. *Puelioideae*/
  4. *Bambusoideae*/
  5. *Ehrhartoideae*/
  6. *Pooideae*/
  7. *Aristidoideae*/
  8. *Arundinoideae*/
  9. *Danthonioideae*/
  10. *Centothecoideae*/
  11. *Panicoideae*/
  12. *Chloridoideae*/
  13. *Micrairoideae*/

#1308. Tribe: <first 3 letters except; Arundinelleae arl, Brachypodieae brp, Phaenospermateae phn, Phareae phr, Streptochaeteae stc, Streptogyneae stg>/

#1309. <Tribe> /

1. Andropogoneae/
2. Anomochloae/
3. Aristideae/
4. Arundineae/
5. Arundinelleae/
6. Aveneae/
7. Bambuseae/
8. Brachyelytreae/
9. Brachypodieae/
10. Bromeae/
11. Brylkinieae/
12. Centotheceae/
13. Cynodonteae/
14. Diarrheneae/
15. Ehrharteae/
16. Eragrostideae/
17. Eriachneae/
18. Hainardieae/
19. Hubbardieae/
20. Isachneae/
21. Leptureae/
22. Lygeae/
23. Meliceae/
24. Micraireae/
25. Nardeae/
26. Olyreae/
27. Orcuttieae/
28. Oryzeae/
29. Paniceae/
30. Pappophoreae/
31. Parianeae/
32. Phaenospermateae/
33. Phareae/
34. Phyllorachideae/
35. Poeae/
36. Steyermarkochloae/
37. Stipeae/
38. Streptochaeteae/
39. Streptogyneae/
40. Triticeae/

#1310. Tribe <of Anomochlooideae> <1>/

1. Anomochloae/
2. Streptochaeteae/

#1311. Tribe: <of Pharioideae> <2>/

1. Phareae/

#1312. Tribe: <of Puelioideae> <3>/

1. Guaduelleae/
2. Puelieae/

#1313. Tribe: <of Bambusoideae> <4>/

1. Bambuseae/
2. Olyreae/

#1314. Tribe: <of Ehrhartoideae> <5>/

1. Ehrharteae/
2. Oryzeae/
3. Phyllorachideae/
4. Streptogyneae/

#1315. Tribe: <of Pooideae> <6>/

1. Aveneae/
2. Poeae/
3. Brachyelytreae/
4. Brachypodieae/
5. Diarrheneae/
6. Meliceae: Brylkiiniineae/
7. Meliceae: Melicinae/
8. Nardeae; Lygeinae/
9. Nardeae:Nardinae/
10. Phaenospermateae/
11. Stipeae: Ampelodesmeae/
12. Stipeae: Stipinae/
13. Triticeae/
14. Bromeae/
- #1316. Tribe: <of Aristidoideae> <7>/
  1. Aristideae/
- #1317. Tribe: <of Arundinoideae> <8>/
  1. Arundineae/
  2. Amphipogoneae/
- #1318. Tribe: <of Danthoioideae> <9>/
  1. Danthoniae/
- #1319. Tribe: <of Centothecoideae> <10>/
  1. Centotheceae/
  2. Cyperochloaeae/
  3. Spartochloae/
- #1320. Tribe: <of Panicoideae> <11>/
  1. Andropogoneae/
  2. Arundinelleae/
  3. Hubbardiaceae/
  4. Neurachneae/
  5. Paniceae/
  6. Steyermarkochloae/
- #1321. Tribe <of Micrairoideae> <13>/
  1. Micraireae/
  2. Isachneae/
  3. Eriachneae/
- #1322. Tribe: <of Chloridoideae> <12>/
  1. Cynodonteae/
  2. Eragrostideae/
  3. Leptureae/
  4. Orcuttieae/
  5. Pappophoreae/
  6. Triodieae/
  7. Sporoboleae/
- #1323. <Morphological Coding by Kew>
  1. Clayton 1997/
  2. C & W 2003/
  3. CHW 2005/
  4. Harman 2006/
  5. Harman 2007/
  6. Harman 2008/
  7. GrassBase online/
  8. No Kew coding/
- #1324. <Coding status morphology>
  1. Coded for morphology/
  2. Not coded for morphology/
- #1325. Synonyms <Clayton, NWG>/
  1. Regarded as synonym by Clayton/
  2. Regarded as synonym by CNWG/
- #1326. Qld Herb Records/

1. QH <No.>/
  2. Not QH/
- #1327. Image of Type <Internet unless indicated>/
1. US/
  2. MO/
  3. Nat Herb Nederland/
  4. K/
  5. BRI <not on Web>/
  6. NY/
  7. LE <fiche>/
- #1328. Inflorescence shape (at arms length)/
1. solid/
  2. compound/
  3. digitate (or subdigitate)/
- #1329. Inflorescence (when simple)/
1. a raceme or spike/
  2. a panicle/
  3. ?rame/
- #1330. Inflorescence (when compound)/
1. an open panicle/
  2. a panicle of racemes/
  3. a panicle of paired racemes/
  4. a congested or contracted panicle/
  5. a panicle of spikes/
  6. of pedicelled spikelet clusters/
- #1331. Inflorescence (when digitate or subdigitate)/
1. with spicate or spikelike branches/
  2. with racemose branches/
- #1332. <Gesum>/
1. Coded/
  2. Not coded/
- #1333. <References; notes clarifying taxonomic scope of species>/
- #1334. HTML Hyperlink <filename for tonath>/
- #1335. <GBIF 2006>/
1. GBIF 1/
  2. GBIF 2 <currently regarded as synonyms>/
  3. GBIF 3 <unreviewed>/
  4. GBIF Mapped/
- #1336. <Genbank NCBI>/
1. **GenBank** <GenBank Number(s)>/
- #1337. International Grass Symposia/
1. Soderstrom et al (1986). Grass Systematics and Evolution/
  2. Jacobs, S.W.L, & Everitt, J. (2000). Grasses. Systematics and Evolution/
  3. Columbus, J.T. et al (2007). Monocots: Comparative Biology and Evolution: Poales/
- #1338. <Abbreviated taxon name>/