

SUPPLEMENTARY INFORMATION
LIST OF SCORED INDELS

The trnC-rpoB spacer

1. 48-75 28 base deletion in *Neurolepis* II except *N. aperta*.
2. 226-227 “GA” deletion in *Neurolepis* I.
3. 246-250 “TCTTA” simple repeat (SR) in *N. aperta*.
4. 276 One nucleotide gap in *Arundinaria*.
5. 291-297 “TAAGGC” SR in *N. aperta*.
6. 337-341 “GTATA” SR in *Chusquea* and *Neurolepis* I.
7. 373-392 “CCCCATAACAACATTATTAT” insert in *Oateia* and *Guadua*. This may be a repeat with subsequent mutations in the subtribe Guaduinae.
8. 393-440 48 base deletion in *Neurolepis* II.
9. 411-413 “TAT” SR in *Chusquea* and most *Neurolepis* I. Overlapping with 8 and part of a microsatellite region coded with the help of Seqstate.
10. 414-416 “TAT” SR in *Chusquea* subgenera *Chusquea* and *Swallenochloa* and in most *Neurolepis* I, but not in *Chusquea* subgenus *Rettbergia*. Overlapping with 8 and part of a microsatellite region coded with the help of Seqstate.
11. 411-416 “TATTAT” deletion in *N. steubelii*. Overlapping with 9 and 10. Probably one event and coded separately from other “TAT” repeats. Overlapping with 8 and part of a microsatellite region coded with the help of Seqstate.
12. 417-421 “ATTAA” insertion in *Neurolepis* I. Overlapping with 8 and part of a microsatellite region coded with the help of Seqstate.
13. 422-440 “TATTATATTATTATATTA” insertion in *N. steubelii*. May be a repeat with subsequent mutation. Overlapping with 8 and part of a microsatellite region coded with the help of Seqstate.
14. 441-446 “TATTAT” insertion in all *Neurolepis*. Part of a microsatellite region coded with the help of Seqstate.
15. 646 One nucleotide gap in *Arundinaria*.
16. 659-664 “TTTNA” insertion in *Chusquea* subgenus *Rettbergia*. Of uncertain origin.
17. 713-719 “TAAGAAA” SR in *Neurolepis* II except *N. aperta*.
18. 720-726 “TACGAAA” SR in *N. asymmetrica*.
19. “TTTC” insertion in *Neurolepis* II except *N. aperta*. Of uncertain origin, but possible necessary for structural stability due to nearby mutations.
20. 755-764 “TTTTTTTTTT” insertion in *N. virgata*. May be a repeat with mutation of the 4th “T” from an “A” or deletion of the “A” in the repeat.
21. 765-770 “ATTCTT” SR in *Arundinaria*.
22. 809-815 “TTCTAAA” SR in *Neurolepis* I with subsequent mutation in *N. asymmetrica* (“TC” to “AA”).
23. 924-925 “AA” deletion in *Arundinaria*.
24. 932-937 “AAAGTG” insertion in *Arundinaria*. A repeat with an additional 5’ “A.”
25. 1044-1063 “ATTGTCTCTATTCATATGTA” SR in *Bambusa*.
26. 1089-1101 “ATGAAATACTAT” SR in *Rhipidocladum*.
27. 1162-1166 “TGCTA” SR in *Guadua*.

The ndhF gene

1. 2681-2686 “TCCTTT” SR in *Chusquea* subgenus *Rettbergia*.
 2. 3049-3054 “GTA” to “TAC” inversion in *Chusquea* and 3 *Neurolepis* I. *Oateia* and several uninverted *Neurolepis* I taxa have a “C” instead of an “A” in the third position. This point mutation is also reflected in one of the inverted sequences: *C. arachniformis*’ inversion is “GAC.”
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The *trnD-trnT* spacer

1. 3237-3261 “AGAACCATAATACCTATTTTAAAAT” 25 base SR in *N. virgata*.
2. 3262-3266 “AGAAC” SR in *Rhipidocladum*.
3. 3323-3328 “TACTAC” deletion in *Guadua*.
4. 3345-3350 “TGTAGG” deletion, *Neurolepis* I.
5. 3355-3403 49 base deletion in *N. virgata*. Possibly the deletion of a loop on a stem/loop structure.
6. 3361-3366 “GTGAGA” SR in *N. aperta*. Overlap with 5.
7. 3382-3388 “CTAGTTA” repeat and subsequent mutation in some *Neurolepis* II. Overlap with 5.
8. 3435-3439 “TTTCA” SR in *Arundinaria* and *Rhipidocladum*.
9. 3463-3478 “TTATATTTATAAATAT” insertion in *Neurolepis* I. Of uncertain origin.
10. 3485-3493 “TAAAAAAA” SR in *N. villosa*.
11. 3509-3520 “ATGAGAGAGATA” SR in *C. coronalis*.
12. 3548-3553 “TCCTTA” deletion in *C. urelytra* and *N. rigida*.
13. 3571-3605 35 base deletion in *Chusquea* subgenus *Rettbergia*, except *C. oligophylla*.
14. 3586-3588 “ATG” deletion in *N. pittieri*. Overlap with 13.
15. 3586-3599 “ATGGAAG” to “CTTCCAT” inversion in some *Neurolepis* I. Overlap with 13.
16. 3607 “T” deletion in some *Chusquea* subgenera *Swallenochloa* and *Chusquea*.
17. 3608 “G” deletion in some *Chusquea* subgenera *Swallenochloa* and *Chusquea*.
18. 3631-3632 “AA” insertion in *Neurolepis* II except *N. aperta*. Part of a poly-A region.
19. 3757-3765 “ATCTATGAT” deletion in *N. aperta*.
20. 3868-3872 “TCACT” SR in *Arundinaria*.
21. 3878-3882 “ATAGG” deletion in *C. serpens*.
22. 3901-3905 “TACTA” insertion in *C. oligophylla*. Similar motif of surrounding sequence, but not a SR.
23. 3906-3909 “TCAT” SR in *Neurolepis* II.
24. 3922-3925 “AATG” deletion in *Otatea*.
25. 3993-3998 “AAAGAG” SR in *Rhipidocladum*.
26. 4040-4045 “HTTTTT” insertion in *Chusquea* subgenera *Chusquea* and *Swallenochloa*.
27. 4055-4111 57 base deletion in *Chusquea* subgenera *Chusquea* and *Swallenochloa*.
28. 4082-4085 “CTTT” SR in *N. aperta*. Overlap with 27.
29. 4132-4137 “ATAAAA” deletion in *N. aperta*.
30. 4327-4386 60 base deletion in *Chusquea* and *Neurolepis*.
31. 4340-4360 “GAAAAAAGGTGAATAAATAA” SR in *Guadua*. Overlap with 30.
32. 4387 “G” deletion in *Chusquea* subgenus *Rettbergia* and *Neurolepis* I.
33. 4439 “T” deletion in *Arundinaria*.

The *rpl16* intron

1. 4526 “A” deletion in *N. aristata*.
2. 4530-4534 “ATAAA” deletion in *Bambusa*.
3. 4535-4563 29 base repeat with variation in *Neurolepis* I except *N. villosa* and *N. asymmetrica*.
4. 4621 “T” deletion in *N. asymmetrica*. Part of a poly-T region.
5. 4622 “T” insertion in *Chusquea* subgenus *Rettbergia*. Part of a poly-T region.
6. 4765 “A” deletion in *Guadua*.
7. 4777-4782 “ACCACC” insertion in *Guadua*. Of uncertain origin.
8. 4797-4803 “TAATAAA” SR in *N. steubelii*.
9. 4823-4833 “TCGTAWCTYGA” deletion in *Chusquea* and *Neurolepis*.
10. 4866-4870 “ATAAA” SR in *Arundinaria*.
11. 5082-5086 “AATAT” deletion in *Arundinaria*.
12. 5137-5159 “ATTGAATTAGAATACTTTACCGC” deletion in *Chusquea* and *Neurolepis*.
13. 5155-5241 87 base deletion in *Rhipidocladum*. Overlap with 12.
14. 5168-5235 68 base deletion in *Otatea*. Overlap with 13.
15. 5169-5181 “CTTTGATTCAATA” SR in *N. aperta*. Overlap with 13 and 14.
16. 5182-5188 “TTCAATA” SR in *N. virgata*. Overlap with 13 and 14.
17. 5215 “T” deletion in *C. scandens* and *C. tessellata*. Overlap with 13 and 14.
18. 5216-5220 “AGTTT” insertion in *Neurolepis* II. Overlap with 13 and 14.
19. 5221 “A” deletion in *Neurolepis* I. Overlap with 13 and 14.

20. 5236-5241 “ATCTAT” deletion in *Chusquea* subgenus *Rettbergia*. Overlap with 13.
 21. 5341 “T” deletion in *Neurolepis* II.
 22. 5341-5344 “TATT” deletion in *Arundinaria* and *Chusquea* subgenera *Swallenochloa* and *Chusquea*. Overlap with 21.
 23. 5343-5344 “TT” deletion in *Neurolepis* I. Overlap with 22.
 24. 5376-5380 “AATGT” SR in *Neurolepis* II except *N. aperta*.
 25. 5399-5406 “TTGG” to “CCAA” inversion in *Arundinaria* and *C. coronalis*.
 26. 5397-5402 “TTTTGG” deletion in *Chusquea* subgenus *Rettbergia*. Overlap with 25.
 27. 5410-5430 “ATTATGGAATT” deletion in *N. aperta*.
 28. 5415-5419 “ATTAT” SR in *Neurolepis* I.
 29. 5425-5429 “TAGAG” SR in *Neurolepis* I.
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The rps16-trnQ spacer

1. 5607-5611 “TTTAG” simple deletion in *Arundinaria* and *Oatea*.
2. 5612-5616 “TTTTAG” SR in *C. oxylepis*, *C. urelytra*, and *C. oligophylla*.
3. 5658-5768 111 base deletion in *Neurolepis* II.
4. 5672-5675 “GAAA” SR in *Rhipidocladum*. Overlap with 3.
5. 5728-5733 “CTCATA” repeat with subsequent mutation in *Neurolepis* I. Overlap with 3.
6. 5747-5751 “TATGA” SR in *Chusquea* and *Neurolepis* I. Overlap with 3.
7. 5793-5803 “AAGACTTATTT” deletion in *C. oligophylla*.
8. 5910 “T” deletion in *N. weberbaueri*.
9. 5912-5915 “AATT” simple deletion in *N. villosa*.
10. 5946-5950 “ATTAG” SR in *Bambusa* and *C. urelytra*.
11. 5975 “C” deletion in *N. weberbaueri*.
12. 5978-5984 “TTAACTA” simple deletion in *N. villosa*.
13. 6071-6197 127 base deletion in *N. aperta*.
14. 6075-6076 “RG” deletion in *Rhipidocladum*. Overlap with 13.
15. 6083 “A” deletion in *C. urelytra*. Overlap with 13.
16. 6102-6103 “CA” SR in *Oatea*, *Guadua*, and *Neurolepis* I. Overlap with 13.
17. 6113 “A” deletion in *C. arachniformis*. Overlap with 13.
18. 6142-6148 “TTTACTT” SR in *C. scandens* and *C. tessellata*. Overlap with 13.
19. 6174-6186 “CTTTTACCTAAAA” SR in *C. urelytra*. Overlap with 13.
20. 6254 “T” deletion in *C. arachniformis*.
21. 6295-6331 “ACCTTATCCTTACCAGAATGGATCATTCTG GATATTT” SR in *C. scandens* and *C. tessellata*.
22. 6397-6402 “TTATAT” insertion in *Chusquea* subgenera *Chusquea* and *Swallenochloa*; Possibly an “AATATAA” to “TTATATT” inversion. Coded as one event.
23. 6408-6412 “TACAA” SR in *Arundinaria*.
24. 6471 493 base insertion in *Arundinaria*. Excluded from the analysis.
25. 6487-6524 “TGAAAATAAAGATATTCAATTTGACTGGA CTTGACACT” deletion in *Chusquea* subgenus *Rettbergia*.
26. 6610-6615 “TTAATA” SR in *Rhipidocladum*, *Oatea*, and *Guadua*.

