SI Table 3: Molecular data

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Included in alignments | | | Included in nucleotide analyses | | | Included in codon analyses | | |
|  |  | Characters | | Data | Characters | | Data | Characters | | Data |
| Genome | Gene | Total | Variable | Missing (%) | Total | Variable | Missing (%) | Total | Variable | Missing (%) |
| Plastid | *atpA* | 1864 | 707 | 14.09 | 1506 | 547 | 0.27 | 1500 | 545 | 0.27 |
| Plastid | *atpB* | 1342 | 399 | 8.28 | 1278 | 387 | 4.57 | 1278 | 387 | 4.57 |
| Plastid | *rbcL* | 1357 | 460 | 3.54 | 1308 | 458 | 0.18 | 1308 | 458 | 0.18 |
| Plastid | Combined | 4563 | 1566 | 9.24 | 4092 | 1392 | 1.58 | 4086 | 1390 | 1.58 |
| Mitochondrial | *atp1* | 1578 | 189 | 58.30 | 597 | 138 | 1.26 | 564 | 121 | 1.33 |
| Mitochondrial | *nad5* | 2544 | 618 | 21.19 | 2102 | 502 | 10.01 | 1071 | 199 | 8.13 |
| Mitochondrial | Combined | 4122 | 807 | 35.40 | 2699 | 640 | 8.07 | 1635 | 320 | 5.79 |
| Nuclear | *gapCp* | 1802 | 486 | 71.05 | 890 | 484 | 44.09 | 294 | 139 | 15.48 |
| All | Combined | 10487 | 2859 | 30.14 | 7681 | 2516 | 8.79 | 6015 | 1849 | 22.85 |

For the phylogenetic analyses, the *nad5* indels contributed an additional 82 characters (all variable; 27.25% missing data).

Works cited in the supplementary tables:

Pryer, K. M., E. Schuettpelz, P. G. Wolf, H. Schneider, A. R. Smith and R. Cranfill. 2004. Phylogeny and evolution of ferns (monilophytes) with a focus on the early leptosporangiate divergences. American Journal of Botany 91:1582–1598.

Schuettpelz, E., P. Korall and K. M. Pryer. 2006. Plastid *atpA* data provide improved support for deep relationships among ferns. Taxon 55:897–906.

Schuettpelz, E. and K. M. Pryer. 2007. Fern phylogeny inferred from 400 leptosporangiate species and three plastid genes. Taxon 56:1037--1050.

Schuettpelz, E., A. L. Grusz, M. D. Windham and K. M. Pryer. 2008. The utility of nuclear *gapCp* in resolving polyploid fern origins. Systematic Botany 33:621--629.

Vangerow, S., T. Teerkorn and V. Knoop. 1999. Phylogenetic information in the mitochondrial *nad5* gene of pteridophytes: RNA editing and intron sequences. Plant Biology 1:235–243.

Wikström, N. and K. M. Pryer. 2005. Incongruence between primary sequence data and the distribution of a mitochondrial *atp1* group II intron among ferns and horsetails. Molecular Phylogenetics and Evolution 36:484–493.