Chloroplast phylogenomic analysis provides insights into the evolution of Paris liiana sp. nov

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ABSTRACT

Paris liiana sp. nov is a species of flowering herb of the genus Paris and widely distributed in the southwest of China. In this study, we sequenced the complete chloroplast (cp) genome of P. liiana sp. nov to investigate its phylogenetic relationship in genus Paris. The cp genome of P. liiana sp. nov was 163,860 bp in length, containing a large single-copy (LSC) region of 84,415 bp, a small single-copy (SSC) region of 12,947 bp, and a pair of inverted repeats (IRs) region of 33,249 bp. The overall GC content was 37.0%. The genome comprises of 135 genes, including 91 protein-coding genes, 37 tRNA genes, and 4 rRNA genes. Phylogenetic relationship analysis based on complete cp genome sequences exhibited that P. liiana sp. nov was most related to P. polyphylla var. yunnanensis.

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were needed to accurately verify this species with increased sampling of *P. liiana* sp. nov and *P. polyphylla* var. *yunnanensis*. The cp genome sequence of *P. liiana* sp. nov reported in this study may provide useful resources for the taxonomy and phylogeny of *Paris* genus.

**Disclosure statement**

No potential conflict of interest was reported by the author(s).

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**Data availability statement**

The data that support the findings of this study are openly available in NCBI GenBank database at [https://www.ncbi.nlm.nih.gov/nuccore/MT857225](https://www.ncbi.nlm.nih.gov/nuccore/MT857225) with the accession number is MT857225, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

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