

## IDENTIFICATION OF ENDEMIC *Paphiopedilum* SPECIES IN VIETNAM

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### Summary

*Paphiopedilum* is a rare and endangered orchid group. Vietnam possesses diverse species of this genus and some of them are valuable endemic taxa. Therefore, conservation measures are needed. Most illegal trading are applied on immature, flowerless plants. Hence a fast and accurate identification method is needed for effective conservation. DNA barcoding is a new method, which is increasingly popular today. In this study, to identify *Paphiopedilum* species, we investigated 6 sequence regions ITS, *matK*, *trnL*, *rpoB*, *rpoC1*, *trnH*- on 23 samples of 8 *Paphiopedilum* species. The amplification of 5 regions ITS, *matK*, *trnL*, *rpoB*, *rpoC1* were 100% successful. The sequences in this study were submitted and contributed to GenBank. The results of this study proposed the combination of ITS and *matK* sequences as the highest potential for identifying 6 *Paphiopedilum* species, including *Paphiopedilum delenatii*, *P. hangianum*, *P. helenae*, *P. x dalatense*, *P. gratixianum*, *P. vietnamense*. This barcode sequence can be applied to identify Vietnam *Paphiopedilum* population serving for management and conservation of this valuable orchid group.

**Keywords:** *Paphiopedilum*, endemic species, molecular identification, ITS, *matK*, *trnL*.