



## Genetic diversity and relationship analysis of *Gossypium arboreum* accessions

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**ABSTRACT.** Simple sequence repeat techniques were used to identify the genetic diversity of 101 *Gossypium arboreum* accessions collected from India, Vietnam, and the southwest of China (Guizhou, Guangxi, and Yunnan provinces). Twenty-six pairs of SSR primers produced a total of 103 polymorphic loci with an average of 3.96 polymorphic loci per primer. The average of the effective number of alleles, Nei's gene diversity, and Shannon's information index were 0.59, 0.2835, and 0.4361, respectively. The diversity varied among different geographic regions. The result of principal component analysis was consistent with that of unweighted pair group method with arithmetic mean clustering analysis. The 101 *G. arboreum* accessions were clustered into 2 groups.

**Key words:** Cluster analysis; Genetic diversity; *Gossypium arboreum* L.; Simple sequence repeat