Genetic diversity and population structure of *Castanopsis eyrei* based on simple sequence repeat markers

L.H. Mao¹²*, X.L. Zhou¹²* and Y.M. Fang¹²

¹Collaborative Innovation Center for Southern Modern Forestry, Nanjing Forestry University, Nanjing, China
²College of Biology and the Environment, Nanjing Forestry University, Nanjing, China

*These authors contributed equally to this study.

Corresponding author: Y.M. Fang
E-mail: jwu4@njfu.edu.cn

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ABSTRACT. *Castanopsis eyrei* (Fagaceae) is one of the dominant tree species in mid-subtropical, evergreen, broad-leaved forests. We obtained 14 pairs of simple sequence repeat (SSR) primers from previous studies, which were used to analyze 90 *C. eyrei* individuals from three populations at different altitudes. Low heterozygosity was detected ($F_{st} = 0.6124$), and the observed heterozygosity was lower than the expected heterozygosity, possibly because of inbreeding and/or the population substructure. The genetic differentiation between populations was relatively low ($F_{st} = 0.0645$); only 7% of the total genetic variation occurred between populations. The medium-altitude population had higher genetic diversity than the low-altitude or high-altitude populations.

Key words: *Castanopsis eyrei*; Genetic diversity; Population structure; SSR