

Method for detecting polymorphism in the second intron of LEAFY gene for barcoding invasive species of the genus *Reynoutria* involves preparing a reaction mixture, activating the polymerase, hybridization of primers complementary to the regions flanking the second intron of the second and third exons, and purification and sequencing of the resulting PCR products. Primers universal for all LEAFY variants are added to the reaction mixtures: lfyR-F-AA-5'-AAG-GAG-ACA-AGT-GCC-CCA-CTA-AGG-3', lfyR-F-GG-5'-GGG-GAG-ACA-AGT-GCC-CCA-CTA-AGG-3', lfyR-R-AA-5'-AAC-TGA-ACA-CTT-GGT-TTG-TTA-CCT-GG-3' and lfyR-R-GG-5'-GGC-TGA-ACA-CTT-GGT-TTG-TTA-CCT-GG-3' in four different combinations. After amplification, the PCR products amplified using different primer combinations are mixed in equimolar concentrations, and the mixed amplicons are sequenced using the Illumina method.