

Investigation of Mealybug (Hemiptera: Coccoidea: Pseudococcidae) Species from Turkey by RAPD

Ç. Ulubaş Serçe,^{*,1} M.B. Kaydan,² A.N. Kiliñer³ and F. Ertunç³

Molecular markers are commonly used for determining the relationship between insect species. In this study, we investigated the relationship of six mealybug species, *Planococcus citri* (Risso), *Planococcus ficus* (Signoret), *Planococcus vovae* (Nasonov), *Pseudococcus longispinus* (Targioni Tozzetti), *Pseudococcus viburni* (Signoret) and *Phenacoccus aceris* (Signoret), sampled from Turkey, using randomly amplified polymorphic DNA-polymerase chain reaction (RAPD-PCR). Of the 50 RAPD primers tested, 18 identified a total of 256 fragments of which all were polymorphic. Sufficient discrimination between *P. citri* and *P. ficus* was provided by several RAPD primers. The genetic distance values calculated for each pair-wise comparison ranged from 0.156 to 0.504. Cluster analyses of RAPD data clearly separated the species into two groups.

KEY WORDS: Mealybug; RAPD; *Planococcus citri*; *Planococcus ficus*; *Planococcus vovae*; *Pseudococcus longispinus*; *Pseudococcus viburni*; *Phenacoccus aceris*.

Received May 19, 2006; accepted Oct. 17, 2006; <http://www.phytoparasitica.org> posting May 4, 2007.

¹Plant Protection Department, Agriculture Faculty, Mustafa Kemal University, Antakya, Turkey. *Corresponding author [e-mail: culubas@mku.edu.tr].

²Plant Protection Department, Agriculture Faculty, Yüzüncü Yıl University, 65080 Van, Turkey.

³Plant Protection Department, Agriculture Faculty, Ankara University, 06610 Dışkapı, Ankara, Turkey.