

MOLECULAR AND MORPHOLOGICAL DESCRIPTION OF *MELOIDOGYNE ARENARIA* FROM TRAVELER'S TREE (*RAVENALA MADAGASCARIENSIS*). **Skantar, Andrea M.**,<sup>1</sup> **L.K. Carta**,<sup>1</sup> and **Z.A. Handoo**<sup>1</sup>. <sup>1</sup>Nematology Laboratory, USDA, ARS, Henry A. Wallace Beltsville Agricultural Research Center, Bldg. 011A, Room 165B, Beltsville, MD 20705-2350.

An unusual variant of *Meloidogyne arenaria* was discovered on roots of a traveler's tree (*Ravenala madagascariensis*) intended for display at a public arboretum in Pennsylvania. The population aroused curiosity by the lack of visible galling on the roots of the infected plant. Morphometrics of the population fit within the ranges reported for *M. arenaria*, with a mosaic of features in common with either *M. platani* or other tropical *Meloidogyne* spp. Molecular characterization included analysis of four loci. The mitochondrial sequence, extending from cytochrome oxidase II (COII) to the 16S (1RNA) gene, was nearly identical to another *M. arenaria* population and closely related to sequences from *M. morocciensis* and *M. thailandica*. The 28S D2-D3 expansion segment was most similar to those from *M. arenaria*, *M. incognita* and *M. paranaensis*, and the IGS-2 was most related to those from *M. thailandica*, *M. arenaria* and *M. incognita*. Analysis of partial Hsp90 genomic sequences revealed the greatest similarity to *M. arenaria*, *M. thailandica* and an Hsp90 haplotype from *M. floridensis*, and a composite sequence comprised of EST from *M. arenaria*. While highly unusual in some aspects, there were no molecular or morphological features that clearly set this population apart as a new species; taken together, the data points to its identification as *M. arenaria*.