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DISEASE NOTE

Thalia dealbata, a new host of sugarcane mosaic virus

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Thalia dealbata is a native of the Middle – Southern part of the USA (Crow et al. 2000); it is a popular rhizomatous perennial pond plant (Speichert and Speichert 2004) which is available worldwide through wholesale nurseries. In 2021 at a nursery in Helvécia (Hungary) 1.5% of the 200 *Thalia dealbata* plants showed chlorotic bands on the foliage in August, which indicated a potential virus infection. By the end of the growing season, the disease incidence reached 100%. ELISA tests based on MAb PTY1 potyvirus-specific antibody (Jordan and Hammond 1991) were carried out in duplicate on the leaf sap of a *Thalia* plant. Absorbance values were 0.921 and 0.944, while negative controls were 0.045 and 0.053, respectively. Plant sap inoculation of *Zea mays* 'Fornad' was carried out, 10 days post inoculation the seedlings showed yellowish interveinal chlorosis and striping. Molecular tests were carried out on the source and inoculated plant samples. Total nucleic acid was extracted with the modified CTAB protocol of Xu et al. (2004), RT-PCR amplification was carried out with genus-specific primers poty7941 (5'-GGAATTCCCGCGGNAAYAAYAGYGGNCARCC-3') and polyT$_2$ (5'-CGGGGATCCTCGAGAAGCTTTTTTTTTTTTTTTT-3') (Salamon and Palkovics 2005). A single PCR product was detected in each case, cloned into pGEM®-T Easy vector and transformed into *E. coli* DH5α strain. The nucleotide sequence of the inserts was determined, the sequence of the virus found in the originally infected plant and the sap-inoculated plant were 100% identical (GenBank accession No. OP131914), which was 1841 bp long, including the entire coat protein region. BLASTn analysis revealed the highest identity to sugarcane mosaic virus Canna clade isolates: KY548507-98.62%, KU561096-98.30%, KU956004-97.98%, KY548506-97.87%. *Xho*II digestion of the original PCR product resulted in only the two predicted restriction fragments (418/1423 bp). *Thalia* plant was also tested with negative results for tobamoviruses, cucumber mosaic virus, and tomato spotted wilt virus with multiplex RT-PCR (Nemes and Salánki 2020). This is the first report of SCMV infecting *Thalia dealbata*, a perennial herbaceous ornamental aquatic plant.

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