

A NEW *LITYLENCHUS* SPECIES (ANGUINATA) FROM BEECH (*FAGUS GRANDIFOLIA*, *F. SILVATICA*) LEAVES IN OHIO. **Carta, Lynn K.¹, Z. A. Handoo¹, D. J. Chitwood¹, G. Bauchan², and C. K. Gabriel³.** ¹ Mycology and Nematology Genetic Diversity and Biology Laboratory, USDA, ARS, NEA, Beltsville, MD 20705. ² Soybean Genomics and Improvement Laboratory, USDA-ARS, Electron Microscopy and Confocal Microscopy Unit, Beltsville, Maryland 20705. ³ Ohio Department of Agriculture, Reynoldsburg, OH 43068.

Large numbers of nematode females and a few males were extracted from leaves of American beech (*Fagus grandifolia*) and European beech (*Fagus silvatica*) in Perry, Ohio during the fall of 2017 and sent for identification to the Mycology and Nematology Genetic Diversity and Biology Laboratory, USDA, Beltsville, MD. Symptoms on the beech leaves included interveinal darkening, and puckered, crinkled, thickened leaves, which is distinct from the chlorotic symptoms caused by *Litylenchus coprosma* on *Coprosma repens* (Rubiaceae) leaves in New Zealand. Attempts to reproduce symptoms with the nematode are underway in other laboratories. Unlike *L. coprosma* this species lacks semi-obese females, males have a subterminal rather than terminal bursa, and both sexes have a shorter stylet and 6 vs. 4 incisures in the elevated lateral field. The females have a more slender, conical tail with pointed, often mucronate extension, more anterior vulva, and longer post uterine sac. Clustal W marker sequence alignments compared to *Litylenchus coprosma* showed 91.6% similarity for ITS 1,2 rDNA, 95% similarity for 28SrDNA, and 99.4% for 18S rDNA. A 699 nucleotide sequence for the COI marker was also generated. Low Temperature SEM images of nematodes showed extensive body undulations, an unusually soft and malleable cuticle, puckering of the vulval lips and lateral depression on either side of the vulval opening.