

THE DISCOVERY OF *OPHIOSTOMA TETROPII* WITH THE BROWN SPRUCE LONGHORN BEETLE (*TETROPIUM FUSCUM*) IN HALIFAX, NOVA SCOTIA, CANADA

Ken J. Harrison and Georgette A. Smith

Natural Resources Canada, Canadian Forest Service, Atlantic Forestry Centre, Fredericton, New Brunswick, Canada E3B 5P7.

kharriso@NRCan.gc.ca

During 1999, a European longhorn beetle, the Brown Spruce Longhorn Beetle (*Tetropium fuscum*) or BSLB, was discovered infesting native red spruce (*Picea rubens*) trees in Point Pleasant Park, Halifax, Nova Scotia, Canada. BSLB was determined to be a plant quarantine pest because it was able to infest and kill healthy red spruce trees, an important species in northeastern North America. It was also infesting and killing both the native North American white and black spruces (*Picea glauca* and *Picea mariana*). Both of these tree species have transcontinental ranges, so the continental threat to forestry and trade would be significant if the beetle was to spread beyond the small area in Halifax, Nova Scotia. During the investigation of the tree mortality, a species of *Ophiostoma* was isolated consistently from the infested wood. After initial difficulty, this *Ophiostoma* species was determined to be *Ophiostoma tetropii* by Karin Jacobs. In Europe, *O. tetropii* occurs with the two native species of *Tetropium*, *T. fuscum* and *T. castaneum* that infest dead and dying Norway spruce (*Picea abies*). Neither insect is considered to be a “tree killer” in its native range. *Ophiostoma tetropii* has been isolated repeatedly from spruce trees infested with BSLB and directly from live beetles using selective media. Non-destructive “walkabouts” by adult beetles permit fungal isolations and allow insect specimens to be preserved as vouchers. In Nova Scotia, *O. tetropii* appears to be limited to BSLB-infested stands near Halifax. We have proposed that the presence of the fungus should be used as an indicator for BSLB detection where it has not yet been found. Native species of *Tetropium*, serious damage by Hurricane Juan in September 2003 and continuing bark beetle infestations outside the Halifax area are discussed.