

OPHIOSTOMATOID FUNGI ASSOCIATED WITH CONIFER-INFESTING BARK BEETLES IN CHINA

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Bark beetles (*Coleoptera: Curculionidae, Scolytinae*) include many economically important forest pests, which typically colonize the phloem and cambial layers of trees, primarily conifers. They are known to live in close association with fungi, especially species of *Ophiostoma*, *Grosmannia* and *Ceratocystiopsis*, and their anamorphs. Several of these fungi are important plant pathogens and many can cause sap-stain on logs and freshly cut wood. China has more than one hundred million hectares of natural forest mainly consisting of conifers, and at least 165 species of conifer-infesting bark beetles are known in this country. However, very little is known regarding the fungi associated with these bark beetles. In recent years, surveys of Ophiostomatoid fungi associated with economically important bark beetles such as *Tomicus* species and *Ips* species have been conducted in China. These surveys have included various visits to Yunnan, South-western China, and one survey in Jilin, North-eastern China. Fungi have been identified based on morphological characteristics as well as DNA sequence comparisons. A total of 750 isolates of *Ophiostoma*, *Leptographium* and *Pesotum* have emerged from these surveys. These represent species such as *Ophiostoma abietinum*, *O. bicolor*, *O. ips*, *O. piceae*, *O. quercus*, *O. setosum*, *Pesotum fragrans* and *Leptographium yunnanense*. The first six of these species have not previously been reported from China. A further seven *Leptographium* and four *Ophiostoma* species have emerged from the surveys and appear to represent novel taxa. Further study will be needed to provide appropriate descriptions for them. The results of this study greatly expand our current knowledge of the Ophiostomatoid fungi occurring in China. The detection of 11 new species in a survey conducted in only two of the 34 provinces of China accentuates the fact that many more Ophiostomatoid species await discovery in this vast country.