



## Diatrypaceous fungi in north-eastern China. 1. *Cryptosphaeria* and *Diatrype*

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### Abstract

The paper considers 13 species belonging to the genera *Diatrype* and *Cryptosphaeria* (Diatrypaceae) found in north-eastern China (Heilongjiang and Jilin Provinces). *Cryptosphaeria nigrescens* and *Diatrype sinensis* are described as new species. Four species recorded are only known from the area around the Sea of Japan, three other species display a biogeographical pattern known as ‘Asa Gray disjunction’, and two species are reported far from their main findings in Europe.

**Keywords:** Ascomycota, distribution, taxonomy

### Introduction

This paper considers 13 species of diatrypaceous fungi occurring in two north-eastern provinces of China, namely Heilongjiang and Jilin. Both provinces belong to the peculiar biographical region around the Sea of Japan that possesses the quite unique composition of fungal species (Vasilyeva *et al.* 2013).

For a long time, only seven diatrypaceous species were known from these provinces: *Cryptosphaeria populina* (Pers.) Sacc. (now *C. lygniota*), *Diatrype stigma* (Hoffm.) Fr., *D. tumida* Ellis et Everh. (now *Eutypella tumida*), *Diatrypella favacea* (Fr.) Nitschke, *D. verruciformis* (Ehrh.) Nitschke, *Eutypa heteracantha* Sacc. (now *Peroneutypa scoparia*), and *Eutypella halseyana* (Schwein.) Berl. & Vogl. (Tai, 1979; Teng, 1996). Then, *Diatrype bullata* (Hoffm.) Fr. was reported (Kobayashi & Zhao 1989), and quite recently, *Cryptosphaeria exornata* Lar.N. Vassiljeva, *C. venusta* Lar.N. Vassiljeva, and *Diatrype macounii* Ellis & Everh. were recorded (Vasilyeva *et al.* 2009). Later (Vasilyeva 2011), 15 species of the genera traditionally assigned to the Diatrypaceae (*Diatrype*, *Diatrypella*, *Eutypa*, *Eutypella*) and three additional species of the genera tentatively placed in this family (*Lopadostoma*, *Melogramma*, *Valsaria*) were reported from Heilongjiang Province. Some of these species are in need of a taxonomic revision, so we undertook a more thorough consideration of the specimens collected in north-eastern China.

### Materials and Methods

The fresh material of the diatrypaceous fungi from north-eastern China was collected in Heilongjiang Province (Xingkaihu Nature Reserve, Weihushan Nature Reserve, vicinities of Sanjiang Nature Reserve, as well as Hulin, Raohe, and Fuyuan) and Jilin Province (Changbai Mountain National Nature Reserve, vicinity of The Red Leaves Valley of Jiaohe). Most of the specimens are kept in the Herbarium of Institute of Biology and Soil Science, Vladivostok (VLA), but several of them are deposited in the Fungarium of the Chinese Academy of Tropical Agricultural Sciences (FCATAS). Photographs of ascomata were obtained using a Nikon D40x digital camera; the photographs of ascospores were taken by using a Leica DM 4500B microscope.



**FIGURES. 14–22.** Ascospores *Cryptosphaeria* and *Diatrype* species: 14. *C. exornata*. 15. *C. ligniota*. 16. *C. nigrescens*. 17. *C. venusta*. 18. *D. hypoxylodes*. 19. *D. platystoma*. 20. *D. stigma*. 21. *D. subundulata*. 22. *D. undulata*. Scale bars: 14, 15, 20 = 3.5  $\mu\text{m}$ , 16, 18, 21, 22 = 4  $\mu\text{m}$ , 19 = 5  $\mu\text{m}$ , 17 = 6  $\mu\text{m}$ .

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