

Introduction

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Rising in mountainous region at the extreme south end of Primorsky Territory and flowing north to join the Amur (Heilongjiang River) near Khabarovsk and Fuyuan, Ussuri River forms a boundary between Primorsky Territory of Russian Far East and Northeast China. A west tributary of upper course of the river is outlet for Lake Khanka (Xingkaihu). The climate of the Ussuri valley is continental but influenced by the monsoon to some extent, with annual precipitation of about 500-600 mm and annual temperatures ranging between 3-4°C in the south and about 2°C in the north. The vegetation is mainly coniferous broad-leaved mixed forest. The characteristic tree species include *Pinus koraiensis* Siebold & Zucc., *Quercus mongolica* Fisch. ex Ledeb., *Tilia amurensis* Rupr., *Fraxinus mandshurica* Rupr., *Phellodendron amurense* Rupr., *Juglans mandshurica* Maxim., etc. In the south of Ussuri, the forest vegetation also includes a significant component of endemic trees such as *Abies holophylla* Maxim., *Pinus takahasii* Nakai, *Acer mandshuricum* Maxim., etc.

The Ussuri region in Russia is often considered to be one of the best mycologically documented areas. However, little detailed information has been available for a sizable area in China's side of the river. The rapid economical development in this region is accompanied by a large amount of loss of natural habitat, especially at China's side. Therefore, investigation of fungal biodiversity of this region is extremely urgent. The aim of this study is to acquire further knowledge of fungal biodiversity in the whole Ussuri region extending across the bounds of two countries and to publish a checklist of taxa collected at both sides of the river. We believe that the assessment of fungal biodiversity in the region could lay the foundations for future mycological conservation plans and measures.

Floristic field surveys were carried out by mycologists of Institute of Biology and Soil Science, Far East Branch of the Russian Academy of Sciences, Vladivostok, and Engineering Research Center of Chinese Ministry of Education for Edible and Medicinal Fungi, Jilin Agricultural University, Changchun. Collectors include Y. Li, Z.M. Azbukina, T. Bau, A.V. Bogacheva, E.M. Bulakh, L.N. Vasilyeva, L.N. Egorova, O.K. Govorova, J.Y. Zhuang, and P. Liu. A total of 40 days was spent in fieldwork in September of 2003, August of 2004, and July of 2009. Our efforts were largely focused on areas of Chinese territory including northern side of Lake Khanka (Xingkaihu), Hulin, Raohe and Fuyuan, and areas of Russian territory including the southern side of Lake Khanka, Ussuriysk, Vladivostok, and the surrounding areas of Khabarovsk. The result is a checklist of 2862 species, based on our own studies on

the collections mainly made by the investigators mentioned above. Earlier collections made by other investigators are also included. Within the major taxonomic groups, the fungi are listed alphabetically by genus and species. Specimen collection data include the host or substrate, place of collections, collecting date, collector (s), field or herbarium number. In addition, we have also included some literature records without citation of specimens, checked from earlier or more recent publications in order to enrich the checklist to the full extent. The specimens are preserved at the Herbarium of Institute of Mycology, Jilin Agricultural University, Changchun, China (HMJAU) and the Herbarium of Institute of Biology and Soil Science, Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia (VLA). The main identification system used in this book is referring to "The Dictionary of Fungi (9th edition)" except a few changes.

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