Preface

The boletes, in particular the fleshy-pored boletes, are a conspicuous element of the summer and fall mushroom flora of China. Many are very attractive because of their bright colors or curious ornamentation in the form of scales on the pileus or reticulum or other ornamentation on the stipe. In addition, many species stain blue immediately when the surface of the tubes or the context is injured, and this never fails to excite the interest of the collectors. Although boletes are found in forested areas throughout the world, nowhere is species-richer than China, which also has many endemic species. Over 300 species in the family Boletaceae have been reported from China over the past few decades.

A large number of the Chinese species of boletes have white, pinkish, purplish pink, reddish, reddish brown, or brownish hymenophores or spore prints. Most of these species were traditionally placed in the genus *Tylopilus*. These species are not only of great ecological and economic values but are also of scientific interest. They are very diverse in morphology, complex in structure, and occupy diverse ecological niches. Our present and previous molecular phylogenetic studies indicate that *Tylopilus* is polyphyletic and many new genera belonging to divergent clades are based on species formerly placed in this genus. Although the color of the hymenophores, or more exactly, the color of the spore prints, traditionally distinguished the major groups of boletes, it is not enough in the modern taxonomy of boletes. A combination of several morphological characteristics, including the color of spore print, the structure of pileipellis, the morphology of stipe, the ornamentation of basidiospore, the discoloration of the context, and the host plants, has been found to be a minimum for the taxonomy of boletes.

The objective of this book is to provide a monograph to those boletes from China that have pallid to pinkish, purplish pink, or red to reddish brown hymenophores and spore prints, i.e., *Tylopilus* s.l. In total, 105 species, including 34 new species, are documented here together with descriptions of macro- and microscopic characteristics and color photos. For the species new to science or new record for China, line drawings of the microscopic characteristics are also provided. Information on the habitats and distributions of each species, as well as keys to the genera and species are provided. In addition, the distribution and differences from similar species are provided, and voucher specimens are listed.

It is impossible to feature each *Tylopilus* s.l. species in a region as vast and diverse as China in a limited time span. There are likely to be many species that have not been scientifically described or remain to be discovered. We therefore offer this book as a first step in the identification of the currently known *Tylopilus* s.l. species.

The authors

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