

# 中国·贵州

# 高等真菌原色图鉴

ZHONGGUO GUIZHOU GAODENG  
ZHENJUN YUANSE TUJIAN

主 编：邹方伦  
宋培浪  
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贵州科技出版社



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## 内容简介

《中国·贵州高等真菌原色图鉴》是作者积多年野外研究工作经验,总结多年科研成果,荟萃历年来拍摄的原生态真菌照片以及搜集的有关资料编撰而成。这是一本图文并茂地集中反映贵州地区高等真菌资源分布、分类、名称、形态特征、习性和用途的科技图书。

贵州高等真菌资源十分丰富,其种质资源的开发利用潜力巨大。多数菌类生长在高山密林深处,部分菌类“暮生朝亡”,给浩瀚的生物界增添了许多奥妙的色彩,备受爱好者关注;有的菌类历来被列为宴席佳品,有“山珍”之称;有的菌类药效神奇,有“仙草”之名;有的则毒如砒霜,让人谈菌色变。

历来采食蘑菇中毒的事件时有发生,近年来采食菌类中毒事件有所上升,加之许多读者对高等真菌的种类缺少直观的认识了解,对此本书采用原色图鉴的形式编著,使其知识更为直观、快捷,不失为一种行之有效的传播载体。

《中国·贵州高等真菌原色图鉴》一书记录了子囊菌4个科9种;担子菌31个科112种,同时分别描述了每一个种的形态特征、分类地位、地理分布、生长习性和用途等。可供真菌学专业科研人员、食(药)用菌工作者、生产厂家、林业工作者及有关院校师生参考。

## Content Brief Introduction

《Colored Illustration of Higher Fungi from Guizhou in P. R. China》is written based on the accumulation of years of working experience in field studies, summary of results of scientific research for many years, the photos of original fungai resources and collection of related information. It is an illustrated technology book that reflects mainly distribution, classification, name, morphological characteristics, habits and use of higher fungi resources in Guizhou .

Guizhou is rich in resources of higher fungi. The development and utilization of these germplasm resources is of enormous potential. The majority of fungi grow in deep forests of mountains, some of which are born by night and die by day, add a lot of mysterious color to the vast biosphere. Hence, people are interest in fungi. A number of fungi have always been listed as the best food, also known as “delicacy”. Some fungi, which are named “dianthera”, have magical medicinal benefits. Some are very poisonous.

Poisoning incidents occur from time to time in the process of mushroom collection and consumption. Similar incidents have increased in recent years. In addition, many readers lack intuitive understanding of the types of higher fungi. Hence, this book is written in the form of colored illustration so that it is a more intuitive, efficient and effective spreading vector.

《Colored Illustration of Higher Fungi from Guizhou in P. R. China》records 9 species in 4 families of ascomycetes and 112 species in 31 families of basidiomycete. At the same time, it describes respectively morphological characteristics, taxonomic status, geographical distribution, growth habit and use of every species. It can be referred to by research personnel engaged in professional mycology, (medicinal) mushroom workers, producers, forestry workers, teachers and students of the concerned institutions.

# 前 言

贵州位于北纬 $25^{\circ}\sim 29^{\circ}$ ,东经 $104^{\circ}\sim 109^{\circ}$ ,在我国西南地区的东南部,地处云贵高原的东斜坡面,是一个丘陵起伏的山地,峰峦叠嶂,地形复杂,江河纵横,西高东低,高度相差很大,西部威宁一带海拔为2400m左右,到贵阳为1057m,再向东到铜仁,再向锦屏降为200m左右。属亚热带季风区,气候温和湿润,雨量充沛,日照少,湿度大,冬无严寒,夏无酷暑,秋季凉爽多雾。由于本省中西部地区地势较高,空气比较稀薄,每当日光普照的时候,即使在冬季也觉得暖如初夏,夜间或阴雨天气,即使在盛夏也觉得凉爽如秋。因此,贵州有“四季无寒暑,一雨便成冬”的说法。而且还由于省内丘陵起伏,谷地纵横,在短短的距离之间,高度相差很大,这就造成了湿度在空气间的剧烈变化,在山谷地区内风力微弱,温高湿重,云雾多,日照少,温暖的气候和良好的水热条件,给野生真菌的生长提供了极为有利的生态条件。

随着人们对营养食品要求的不断提高和对食物营养观念的转变,食用真菌和药用真菌被利用的种类范围越来越广,同时对毒菌的认识和开发利用的要求也日趋强烈,为了满足广大读者对真菌的直观认识,作者经过多年对高等真菌的调查、照片拍摄、标本采集、浸泡标本的研究和制作,编著了《中国·贵州高等真菌原色图鉴》一书。本书记录了子囊菌4个科9种;担子菌31个科112种,同时还分别描述了每一个种的形态特征、分类地位、地理分布、生长习性和用途等。可供真菌学专业科研人员、食(药)用菌工作者、生产厂家参考。

本书在标本采集、标本制作、编写出版过程中,得到了贵阳市科技局,贵阳药用资源博物馆,贵阳药用植物园,贵州科学院,贵州省生物研究所等单位有关领导的支持和帮助,同时也得到了贵州科学院吴兴亮研究员、贵州省生物研究所余志刚、李峰、蒋鸿等有关专家的支持帮助,得到贵州大学梁宗琦教授、康冀川教授的支持帮助,广东省微生物研究所李泰辉和宋斌研究员,中国科学院昆明植物研究所杨祝良研究员的支持帮助。谨此,一并表示衷心感谢。

由于编著者水平有限,错漏之处在所难免,希望同行和广大读者批评指正,以便再版修订。

## Preface

Guizhou Province, located at 25°~29° of north latitude, and 104°~109° of east longitude, belongs to the southeastern part of Southwest China. Since it lies in the eastern slope side of Yunan and Guizhou Plateau, it actually is a mountain area with small undulating hills. Besides, there are also a good number of rivers crossing the province. As a result, the surface features of this region are very complicated. What is more, there is a sharp contrast in altitude between its eastern part and western part. For instance, the altitude of western Xianning area is 2400 meters, while that of Guiyang is 1057 meters. Still further east, the altitude of Tongren and Jinping area is as low as about 200 meters. Guizhou Province belongs to sub-tropical monsoon zone, which is characterized by mild climate, plenty rainfall, weak sunlight and high humidity of air. It is neither cold in winter nor hot in summer, and its autumn is generally cool and misty. Due to the higher altitude of its western and central parts, the air is relatively thinner. Consequently, when the weather is sunny in winter, it feels as warm as early summer; when it is rainy in summer, it feels as cool as autumn days. Just as a saying in Guizhou goes, "there is no clear distinction between hot and cold in here. It requires only a rainfall to make a winter." Also, owing to various small hills in this region and sharp contrast of altitude within short distance, the humidity of air is dramatically changing. The valleys with weak wind, high temperature and humidity, less sunlight, warm climate as well as favorable water conditions, provide advantageous ecological conditions for the growth of wild fungi.

With the continuous improvement of nutritional food requirements and changes in the concept of food nutrition, the type scope of edible and medicinal fungi is wider and wider, at the same time; the claims for understanding, development and utilization of toadstool are becoming increasingly strong. In order to make the readers intuitively understand fungi, the writers write the book named 《Colored Illustration of Higher Fungi from Guizhou in P. R. China》 after years of investigation of higher fungi, photos, specimen collection, research and production of immersed specimen. This book records 9 species in 4 families of the ascomycetes, and 112 species in 31 families of basidiomycotina and describes morphological characteristics, taxonomic status, geographical distribution, growth habit and use of each respective type. It can be referred to by research personnel engaged in professional mycology, (medicinal) mushroom workers and manufacturers.

In the course of specimen collection, production and writing and compiling of the book, the author has gained great support and help from relevant leaders in Guiyang municipal Science and Technology Bureau, Guiyang Museum of medicinal resources, Guiyang Medicinal Botanical Garden, Guizhou Academy of Science and Guizhou Biological Research Institute. Fellow Xingliang Wu in Guizhou Academy of Sciences and some



relevant experts in Guizhou Biological Research Institute, such as Zhigang Yu, Feng Li, Hong Jiang, etc, gave their help. Professors Zongqi Liang and Jichuan Kang from Guizhou University also offered their help generously. Follows Taihui Li and Bin Song in Guangdong Province Institute of Microbiology and fellow Zhuliang Yang in Kunming Institute of Botany Chinese Academy of sciences, also gave help and support to us. Mr. Here, the author would like to extend his sincere gratitude to all of them.

The book may have some faults due to limited professional knowledge of the writers. If so, those in the mycology field and the general reading public are welcomed to make criticisms and comments so that they can be amended when it is republished.

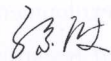
# 序

贵州隆起在四川盆地和广西盆地之间,是一个江河纵横,峰峦叠嶂,丘陵起伏的山地。受中亚热带湿润季风气候的影响,故冬无严寒夏无酷暑。温暖的气候和良好的水热条件,有利于大量高等真菌的生长繁衍,因此贵州高等真菌资源的蕴藏量十分丰富,具有巨大的开发利用前景。

贵州是多民族地区,用菌入药,用菌为食的历史渊源远古。近代,外国传教士P.J.Cavalerie 和J.P.A. David在贵州曾采到一些真菌标本,先后被 N.Patouillard 研究发表(1886-1907),这些标本现仍存于哈佛大学的Farlow标本馆。

随着人们食物营养观念的转变,对食用真菌、药用真菌和毒菌的认识和利用要求日趋强烈,为满足广大读者对真菌的直观认识了解,邹方伦等同志经过多年对高等真菌的调查研究,采集和拍摄了大量的标本和照片,编著了《中国·贵州高等真菌原色图鉴》一书,这是一个良好的开端,千里之行始于足下,从少到多,从不完善到完善,从不了解到了解。该书出版后,将对扩大高等真菌资源的开发利用产生深远的影响,同时对广大菌类爱好者认识、开发和利用菌类资源,具有直接的实用价值,它对真菌研究和教学工作者,也具有很高的参考作用。

欣值本书出版之际,乐为之序。



2009年12月

## Preface

Guizhou uplifts between the Sichuan Basin and Guangxi Basin. It actually is a mountain area with small undulating hills. Besides, there are a good number of rivers crossing the province. Affected by the humid subtropical monsoon climate, it is neither cold in winter nor hot in summer. Warm climate and good water and heat conditions is conducive to the growth of a large number of higher fungi. Hence, Guizhou is rich in resources of higher fungi and is of enormous potential.

Guizhou is a multi-ethnic region. The history that the fungi are used as medicine and food is very long. In modern times, foreign missionaries P.J.Cavalerie and J.P.A.David collected a number of fungal specimens in Guizhou, which had been studied and published by N. Patouillard (1886-1907). Some of these specimens are still stored in the Farlow Herbarium at Harvard University.

With the changes in the concept of food nutrition, the claims for understanding and utilization of edible fungi, medicinal fungi and toadstool are becoming increasingly strong. In order to make the readers intuitively understand fungi, Zou FangLun et write the book named 《Colored Illustration of Higher Fungi from Guizhou in P. R. China》 after years of investigation of higher fungi, photos, specimen collection. This is a good start; journey of a thousand miles begins with a single step, from less to more, from imperfect to perfect, from never learned to understand. The publication of this book will have a profound impact on the expansion of higher fungi development and utilization, at the same time, have a direct practical value to recognize, develop and use fungi resources for the majority of fungi lovers and also have a high reference value for its research workers and teaching workers.

On the occasion of the publication of this book, I am very glad to make the preface to it.

Bo SUN  
Oct.2009

## 第一篇 子囊菌亚门 Ascomycotina

核菌纲 <i>Pyrenomycetes</i> .....	(003)
麦角菌目 <i>Clavicipitales</i> .....	(003)
麦角菌科 <i>Clavicipitaceae</i> .....	(003)
1. 凉山虫草 <i>Cordyceps liangshanensis</i> Zang, Liu et Hu. ....	(003)
2. 稻子山虫草 <i>Cordyceps inegoensis</i> Kobayasi .....	(005)
炭角菌目 <i>Xylariales</i> .....	(008)
炭角菌科 <i>Xylariaceae</i> .....	(008)
3. 地炭棍 <i>Xylaria nigripes</i> (Kl.) Sacc. ....	(008)
盘菌纲 <i>Discomycetes</i> .....	(009)
盘菌目 <i>Pezizales</i> .....	(009)
盘菌科 <i>pezizaceae</i> .....	(009)
4. 多美氏盘菌 <i>Peziza domiciliana</i> Cooke .....	(009)
羊肚菌科 <i>Morchellaceae</i> .....	(011)
5. 羊肚菌 <i>Morchella esculenta</i> (L.) Pers. ....	(011)
6. 黑脉羊肚菌 <i>Morchella angusticeps</i> PK .....	(013)
7. 宽肋羊肚菌 <i>Morchella costata</i> (Vent.) Pers. ....	(015)
8. 尖顶羊肚菌 <i>Morchella conica</i> Pers. ....	(016)
9. 小羊肚菌 <i>Morchella deliciosa</i> (Fr.) Jacquetant. ....	(018)

001

## 第二篇 担子菌亚门 Basidiomycotina

有隔担子菌亚纲 <i>Phragmobasidiomycetidae</i> .....	(023)
银耳目 <i>Tremellales</i> .....	(023)
银耳科 <i>Tremellaceae</i> .....	(023)
10. 银耳 <i>Tremella fuciformis</i> Berk .....	(023)
11. 金耳 <i>Tremella aurantialba</i> Bandoni et Zang .....	(026)
黑胶菌科 <i>Exidiaceae</i> .....	(028)
12. 黑胶菌 <i>Exidia glandulosa</i> Fr .....	(028)

木耳科 <b>Auriculariaceae</b> .....	(030)
13.黑木耳 <i>Auricularia auricular</i> Underw .....	(030)
14.毛木耳 <i>Auricularia polytricha</i> (Mont.)Sacc .....	(032)
15.皱木耳 <i>Auricularia delicata</i> (Fr.)Sing .....	(034)
无隔担子菌亚纲 <b>Holobasidiomycetidae</b> .....	(036)
花耳目 <b>Dacrymycetales</b> .....	(036)
花耳科 <b>Dacrymycetaceae</b> .....	(036)
16.桂花耳 <i>Guepinia spathularia</i> (Schw.)Martin .....	(036)
非褶菌目 <b>Aphylophorales</b> .....	(038)
鸡油菌科 <b>Cantharellaceae</b> .....	(038)
17.鸡油菌 <i>Cantharellus cibarius</i> Fr. ....	(038)
18.小鸡油菌 <i>Cantharellus minor</i> Peck. ....	(040)
齿菌科 <b>Hydnaceae</b> .....	(042)
19.耙齿菌 <i>Irpex cinnamomeus</i> Fr. ....	(042)
猴头菌科 <b>Hericiaceae</b> .....	(043)
20.猴头菇 <i>Herlcium erinaceus</i> (Bull.es Fr.) Pers .....	(043)
枝瑚菌科 <b>Ramariaceae</b> .....	(045)
21.变红黄丛枝瑚菌 <i>Ramaria flava</i> (Fr.)Quel. ....	(045)
22.米黄丛枝瑚菌 <i>Ramaria obtusissima</i> (Peck.)Corner. ....	(046)
23.联丛枝瑚菌 <i>Ramaria conjunctipes</i> (Coker.)Corner. ....	(047)
珊瑚菌科 <b>Clavariaceae</b> .....	(048)
24.白珊瑚菌 <i>Ramariopsis kunzei</i> (Fr.)Donk. ....	(048)
多孔菌科 <b>Polyporaceae</b> .....	(050)
25.桦褶孔菌 <i>Lenzites betulina</i> (L.)Fr. ....	(050)
26.云芝 <i>Coriolus versicolor</i> (L:Fr.)Quèl. ....	(052)
27.茯苓 <i>Wolfiporia cocos</i> (Schw.)Ryv. et Gilbn .....	(054)
28.灰树花 <i>Grifola frondosa</i> (Fr.)S.F.Gray. ....	(056)
29.漏斗棱孔菌 <i>Favolus arcularius</i> (Fr.) Ames .....	(058)
30.褶孔栓菌 <i>Trametes gibbosa</i> (Pers.ex Fr.)Fr. ....	(060)
31.黑柄多孔菌 <i>Polyporus melanopus</i> (Sw.) Fr. ....	(062)
32.毛盖栓菌 <i>Trametes gallica</i> Fr. ....	(064)
33.松生拟层孔菌 <i>Fomitopsis pinicon</i> a (SW.:Fr.)Karst. ....	(066)
34.宽鳞大孔菌 <i>Favolus squamosus</i> (Huds.ex Fr.)Ames .....	(068)
35.朱红密孔菌 <i>Pycnoporus cinnabarinus</i> (Jacq.:Fr.)Karst. ....	(070)
灵芝科 <b>Ganodermataceae</b> .....	(072)
36.灵芝 <i>Ganoderma Lucidum</i> zhao,xu et Zhang. ....	(072)
37.紫灵芝 <i>Ganoderma sinense</i> Zhao,Xu et zhang. ....	(075)
38.层迭树舌 <i>Ganoderma lobatum</i> (Schw.)Atk. ....	(076)
39.南方树舌 <i>Ganoderma australe</i> (Fr.) Pat .....	(078)

40.假芝 <i>Amauroderma rugosum</i> (Bl.:et Nees)Torrend .....	(080)
同隔担子菌亚纲 <b>Holobasidiomycetidae</b> .....	(082)
伞菌目 <b>Agaricales</b> .....	(082)
侧耳科 <b>Pleurotaceae</b> .....	(082)
41.金顶侧耳 <i>Pleurotus citrinipileatus</i> Sing. ....	(082)
42.小白扇 <i>Pleurotus septicus</i> (Fr.)Quèl. ....	(084)
43.贝形侧耳 <i>Pleurocybella porrigens</i> (Pers.:Fr.)Sing. ....	(086)
44.黄毛侧耳 <i>Pleurotus nidulans</i> (Pers.ex Fr.)Gill .....	(088)
45.杏鲍菇 <i>Pleurotus eryngii</i> (DC.:Fr.)Quel. ....	(090)
46.黄白侧耳 <i>Pleurotus cornucopiae</i> (Paul.:Pers.)Roll .....	(092)
47.佛罗里达侧耳 <i>Pleurotus florida</i> Eger .....	(094)
48.凤尾菇 <i>Pleurotus pulmonarius</i> (Fr.)Sing .....	(096)
49.长柄侧耳 <i>Pleurotus spodoleucus</i> Fr .....	(098)
50.香菇 <i>Lentinus edodes</i> (Berk.)Sing. ....	(100)
裂褶菌科 <b>Schizophoraceae</b> .....	(102)
51.裂褶菌 <i>Schizophyllum commune</i> Fr. ....	(102)
口蘑科 <b>Tricholomataceae</b> .....	(104)
52.构菌 <i>Flammulina Velutipes</i> Singer .....	(104)
53.长根菇 <i>Oudemansiella radicata</i> (relh) sing .....	(106)
54.红蜡蘑 <i>Laccaria Laccata</i> (Scop.:Fr)Berk.et Br .....	(108)
55.紫晶蜡蘑 <i>Laccaria amethystea</i> (Bull)Murr .....	(109)
56.蜜环菌 <i>Armillariella mellea</i> (Vahl.:Fr.) Karst. ....	(111)
57.假蜜环菌 <i>Armillariella tabscens</i> (Scop.:Fr.)Sing .....	(113)
58.栎金钱菌 <i>Collybia dryophila</i> (Bull.:Fr.)Quel .....	(115)
59.堆金钱菌 <i>Collybia acervata</i> (Fr.)Gill .....	(117)
60.硬柄皮伞 <i>Marasmius oreades</i> (Bolt.)Fr .....	(119)
61.琥珀皮伞 <i>Marasmius siccus</i> (Schw.)Fr. ....	(121)
62.叶生皮伞 <i>Marasmius epiphyllus</i> (Pers.:Fr.)Fr. ....	(123)
63.宽褶菇 <i>Oudemansiella platyphylla</i> (Pers.:Fr.)Moser. ....	(125)
鹅膏菌科 <b>Amanitaceae</b> .....	(127)
64.橙黄鹅膏 <i>Amanita hemibapha</i> (Berk.et Br.)Sacc .....	(127)
65.鳞柄白毒伞 <i>Amanita virosa</i> Lam.:Secr .....	(129)
66.灰托鹅膏 <i>Amanita vaginata</i> (Bull.:Fr.)Vitt .....	(131)
67.小果鸡枞 <i>Termitomyces microcarpus</i> (Berk.et Br.)Heim. ....	(133)
68.豹斑鹅膏 <i>Amanita pantherina</i> (DC.:Fr.)Schumm .....	(135)
69.角鳞灰鹅膏 <i>Amanita spissacea</i> Imal .....	(137)
70.金疣鹅膏 <i>Amanita inaurata</i> Secr. ....	(139)
71.橙盖鹅膏白色变种 <i>Amanita caesarea</i> (Scop.ex Fr.)Pers.ex Schw.var.alba Gill. ....	(141)
72.隐花青褐伞 <i>Amanita manginiana</i> Pat.et Har. ....	(143)

73. 赭盖伞 <i>Amanita rubescens</i> Pers.ex Gray	(145)
74. 小豹斑鹅膏 <i>Amanita sychnothyris</i> Corner & Bas.f.subannulate Hongo	(147)
75. 角鳞白鹅膏 <i>Amanita solitaria</i> (Bull.:Fr.)Karst.	(149)
76. 白毒鹅膏 <i>Amanita verna</i> (Bull.:Fr.)Pers.:Vitt	(151)
77. 鸡枞菌 <i>Termitomyces albuminosus</i> (Berk.)Heim	(153)
光柄菇科 <b>Pluteaceae</b>	(155)
78. 冬小包脚菇 <i>Volvariella brumalis</i> He.	(155)
79. 草菇 <i>Volvariella volvacea</i> (Bull.:Fr.)Sing	(157)
80. 黄光柄菇 <i>Pluteus leoninus</i> (Schaeff.:Fr.)Kummer	(159)
黑伞科 <b>Agaricaceae</b>	(161)
81. 双孢蘑菇 <i>Agaricus bisporus</i> (Lange)Sing.	(161)
82. 巴西蘑菇 <i>Agaricus blazei</i> Murr	(163)
鬼伞科 <b>Coprinaceae</b>	(165)
83. 褶纹鬼伞 <i>Coprinus plicatilis</i> (Curt:Fr.)Fr.	(165)
84. 长根鬼伞 <i>Coprinus macrorhizus</i> (Pers.:Fr.)Rea	(167)
85. 白假鬼伞 <i>Pseudocoprinus disseminatus</i> (Pers.:Fr.)Kühner.	(169)
86. 毛头鬼伞 <i>Coprinus comatus</i> (Müll.:Fr.)S.F.Gray	(171)
87. 黄盖小脆柄菇 <i>Psathyrella candolleana</i> (Fr.)A.H.Smith.	(173)
粪锈伞科 <b>Bolbitiaceae</b>	(175)
88. 杨树菇 <i>Agrocybe aegerita</i> (Brig.) sing	(175)
球盖菇科 <b>Strophariaceae</b>	(176)
89. 酒红球盖菇 <i>Stropharia rugosoannulata</i> Farlow	(176)
桩菇科 <b>Paxillaceae</b>	(177)
90. 黑毛桩菇 <i>Paxillus atro-tomentosus</i> (Batsch. ex Fr.)Fr.	(177)
牛肝菌科 <b>Boletaceae</b>	(179)
91. 细网牛肝菌 <i>Boletus satanas</i> Lenz	(179)
92. 粘盖牛肝菌 <i>Suillus bovinus</i> (L.Fr.)Kuntze.	(181)
93. 黄褶孔牛肝菌 <i>Phylloporus bellus</i> (Mass.)Corner	(183)
94. 红黄褶孔牛肝菌 <i>Phylloporus rhodoxanthus</i> (Schw.)Bres.	(185)
95. 皱盖疣柄牛肝菌 <i>Leccinum rugosiceps</i> (PK.)Sing.	(187)
松塔牛肝菌科 <b>Strobilomycetaceae</b>	(189)
96. 松塔牛肝菌 <i>Strobilomyces confuses</i> Sing.	(189)
97. 绒柄松塔牛肝菌 <i>Strobilomyces floccopus</i> (Vahl.:Fr.)Karst.	(191)
98. 半裸松塔牛肝菌 <i>Strobilomyces seminudus</i> Hongo.	(193)
红菇科 <b>Russulaceae</b>	(195)
99. 松乳菇 <i>Lactarius deliciosus</i> (L.ex Fr.)Cray.	(195)
100. 稀褶黑菇 <i>Russula nigricans</i> (Bull.ex Fr.)Fr.	(197)
101. 苍白乳菇 <i>Lactarius pallidus</i> (Pers.:Fr.)Fr.	(199)
102. 大红菇 <i>Russula rubra</i> (Krombh.) Bres.	(201)

103.绿菇 <i>Russula virescens</i> (Schaeff.ex Zanted.)Fr. ....	(203)
粉褶菌科 <b>Rhodophyllaceae</b> .....	(205)
104.变绿赤褶菇 <i>Rhodophyllus virescens</i> (Berk.&Curt.)Hongo .....	(205)
钉菇科 <b>Gomphaceae</b> .....	(207)
105.东方喇叭菌 <i>Gomphus orientalis</i> Petersen et Zang. ....	(207)
106.喇叭菌 <i>Gomphus floccosus</i> (Schw.)Sing. ....	(209)
<b>腹菌亚纲 Gasteromycetidae</b> .....	(211)
硬皮马勃目 <b>Sclerodermatales</b> .....	(211)
硬皮地星科 <b>Astraceae</b> .....	(211)
107.硬皮地星 <i>Astraeus hygrometricus</i> (Pers.)Morg .....	(211)
灰包目 <b>Lycoperdales</b> .....	(213)
灰包科 <b>Lycoperdaceae</b> .....	(213)
108.头状马勃 <i>Calvaia craniiformis</i> (Schw.)Fr .....	(213)
109.网纹灰包 <i>Lycoperdon perlatum</i> Pers .....	(215)
110.梨形灰包 <i>Lycoperdou pyriforme</i> Schaeff.:Pers .....	(217)
鬼笔目 <b>Phallales</b> .....	(219)
鬼笔科 <b>Phallaceae</b> .....	(219)
111.红托竹荪 <i>Dictyophora rubrovolvata</i> Zang,ji et liou. ....	(219)
112.长裙竹荪 <i>Dictyophora indusiata</i> Fisch. ....	(221)
113.黄裙竹荪 <i>Dictyophora multicolor</i> Berk.et Br. ....	(224)
114.白鬼笔 <i>Phallus impudicus</i> L.:Pers .....	(226)
115.深红鬼笔 <i>Phallus rubicundus</i> (Bosc.)Fr. ....	(228)
笼头菌科 <b>Clathraceae</b> .....	(229)
116.红笼头菌 <i>Clathrus rubber</i> Mich.ex Pers. ....	(229)
117.安顺假笼头菌 <i>Pseudoclathrus anshunensis</i> W.Zhou et K.Q.Zhang sp.nov. ....	(231)
118.五臂假笼头菌 <i>Pseudoclathrus pentabrachiatus</i> F. L. Zou, sp.Nov. ....	(233)
鸟巢菌目 <b>Nidulariales</b> .....	(235)
鸟巢菌科 <b>Nidulariaceae</b> .....	(235)
119.粪生黑蛋巢 <i>Cyathus stercoreus</i> (Schw.)de Toni. ....	(235)
120.隆纹黑蛋巢 <i>Cyathus striatus</i> Willd.:Pers. ....	(237)
121.白蛋巢 <i>Crucibulum vulgare</i> Tul. ....	(239)
<b>参考文献</b> .....	(241)



# 第一篇 子囊菌亚门 *Ascomycotina*