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嵩山植物志

叶永忠 吴顺聊 主编

中国科学技术出版社

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主 编 叶永忠 吴顺卿

副主编 张石亭 高贤明 范志彬

田朝阳 刘若庸 秦世俊

调查、编辑成员(按姓氏笔划为序)

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编写顾问 丁宝章 张企曾 王 鑫

王遂义 石应午

责任编辑 祝立新

封面摄影 耿则先

封面设计 王序德

正文设计 晓 晓

FLORA SONGSHANENSIS

Ye Yongzhong

Institute of Botany
Henan Agricultural University
Zhengzhou, Henan, 450002

Wu Shunqing

Songshan National Forest Park
Dengfeng, Henan, 452400

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Reductore Principalibus

Ye Yongzhong, Wu Shunqing

Vice Reductore Principalibus

Zhang Shitin, Gao Xianming, Fan Zhibin

Tian Chaoyang, Liu Ruorong, Qin Shijun

Membris Commissionis Reductorum

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序

嵩山是“五岳”之一，耸立于中原西缘。最高峰御寨山顶峰海拔 1512.2 米。山麓有嵩阳书院、中岳庙、少林寺，是著名风景区，将成为重要的旅游胜地。

嵩山位于全国南北和东西的交汇点，植物资源丰富多样。摸清植物物种，因地制宜发展野生植物资源，科学地保护好，管理好并培育好良好的植被已是当务之急。1986 年嵩山已被批准为国家级森林公园，编写、出版《嵩山植物志》正是适应这个需要的科研项目。

自 1982 年以来，叶永忠等 8 位同志，开展嵩山植物资源的调查研究，先后采集了大量的植物标本。经过整理、鉴定，全山维管植物共计 147 科、643 属、1540 种；包括蕨类植物 21 科、36 属、70 种；裸子植物 5 科、9 属、10 种；被子植物 121 科、598 属、1460 种。在鉴定过程中，他们曾到中国科学院北京植物研究所、西北植物研究所、武汉植物研究所等植物标本室核对。他们还请教了有关专家。鉴定是认真的，也是比较可靠的。他们还进行了植物区系分析和资源利用分类。

嵩山植物资源丰富，可供多方面开发利用。在书中分别作了介绍，如野果植物，观赏植物，淀粉植物、油料植物、纤维植物、药用植物、牧草和饲料植物、芳香油植物等等。同时还列举了有毒植物，提醒游人注意，不要随意采集和食用，以避免中毒。

嵩山作为国家森林公园，开拓为旅游风景区来说，观赏植物格外重要。

区内有许多优良的风光树种,如银杏、侧柏、油松、青檀、黄连木、三角枫、泡桐、楸树、香椿、椴树、枫杨、大果榉等等。这里的观赏花木种类繁多,如中国特有的蜡实,春夏之交全株满缀粉红色的花朵,繁花如锦,十分美丽,英文译名为美丽的小树(Beauty bush)。流苏树属全世界共两种,北美洲一种,中国一种,即流苏树,春季开花,犹如积雪。还有天目琼花,春开白花,秋结红果,枝叶也很美观,还有玉铃花,白鹃梅、杜鹃、山梅花、绣线菊、紫丁香、醉鱼草等等。万紫千红,满山春色,供游人鉴赏。所有这些在本书中作了扼要的介绍。嵩山还有不少秋季的红叶树种,如元宝槭、黄栌、乌桕等等。中原地区秋季天气晴朗,红叶迎秋。在草本植物中,有观赏价值的香花美草为数很多,这里只举出铃兰。铃兰在嵩山已是它分布的南限,铃兰耐阴,是林下小草,常形成小片群落,从两片绿叶间抽出微垂花梗,上缀洁白如铃小花,香味芬芳,是欧洲妇女所喜爱的佩戴花束。

所有这些树木花草妥加配植和保护,可使名山增辉,它们又具有涵养水源、保持土壤、净化空气的功能,有助于保持山青水秀,空气洁净健康卫生的良好环境;而树多、草多也将招引珍禽异兽并使之栖息繁衍。造就“四时花香,万壑鸟鸣”生气盎然的旅游胜景。

本书对全山的高等植物作了全面系统的记述,还配有绘制精细的插图,这更使读者便于查对,是一部出色的工具书。它是从事野生植物资源开发,园林设计的资料手册,也是研究植物区系地理,植物群落的重要文献。

根据作者对编写过程的介绍,粗略地翻阅了全书,部分章节看得细致一些。在即将付印之际爰述数语,以致庆贺,并向读者作简略介绍。

吴中伦 于北京

1993年3月19日

Preface

Songshan Mountain, rising in the western part of the Central China, is one of the Five Mountains. Its highest peak, Yuzhaishan, is 1512.2 meters above sea level. There are many famous scenic spots around the foot of the mountain, such as Songyang Academy of Classical Learning, Zhongyue Temple, Shaolin Monastery, which will become important tourist resorts in the Central China.

Songshan Mountain is located on the place where northern and southern parts cross eastern and western parts of the whole country, so it is rich in plant resources. It has been the urgent matter to find out all the plant species, develop the wild plant resources in line with local conditions, and protect, look after and foster good vegetation scientifically. In 1986 Songshan Mountain was approved to be a national forest park, for this very need *Flora Songshanensis* is compiled and published.

Professor Ye Yongzhong and other seven scholars have been investigating the plant resources in Songshan region since 1982, collecting lots of plant specimens during this period. Through identifying and sorting out the specimens, the result obtained was that, in the whole region, there are 1540 species of vascular plants which belong to 643 genera in 147 families including pteridophytae of 70 species in 36 genera and 21 families, Gymnospermae of 10 species in nine genera and five families, and angiospermae of 1460 species in 598 genera and 121 families. During the course of identification they went to the herbaria of Institute of Botany of Academia Sinica in Beijing, Northwest Institute of Botany in Xian, Wuhan Institute of Botany, etc. to check the specimens and consulted experts concerned. The identification is conscientious and the result is also relatively reliable. Besides, they have done some work about the analysis of flora and the classification of plant resources.

The plant resources in Songshan Mountain are abundant which may be exploited in many ways. In this book plants like wild fruits, ornamentals, starch plants, oil-bearing plants, fiber plants, medicinal plant, forage grasses, fragrant plants, etc., are briefly recommended respectively. Meanwhile, the poisonous plants are especially listed to tell the tourists that it is dangerous to pick up and taste them.

As a national forest park Songshan Mountain boasts its plentiful ornamental plants that are extremely important to itself. There are many excellent scenic trees: *Ginkgo biloba*, *Platycladus orientalis*, *Pinus tabulaeformis*, *Pteroceltis tatarinowii*, *Pistacia chinensis*, *Acer buergerianum*, *Paulownia fortunei*, *Catalpa bungei*, *Toona sinensis*, *Tilia amurensis*, *Pterocarya stenoptera*, *Zelkova sinica* and many others. There are also a number of flowering bushes, one of which is *Kolkwitzia amabilis* endemic to China blooming in late spring and early summer with its dense pink flowers bright and beautiful, so its name is translat-

ed as Beauty Bush in English. The genus of *Chionanthus* has only two species, one lives in North America, the other in China, i. e. *Ch. retusa*, when blooming in spring, the whole tree looks as if it were covered with snow. *Viburnum sargentii* var. *calvescens*, another beautiful flowering bush, bears its white flowers in spring and yields its red fruits in fall. In addition, some others like *Styrax obossia*, *Exochorda racemosa*, *Rhododendron simsii*, *Philadelphus incanus*, *Spiraea* spp., *Syringa oblata*, *Buddleja lindleyana*, and so on, are also well known for their pretty flowers. These decorative species bear flowers of all sorts blooming in a riot of color which brings the spring to the mountain for tourists. All of those, brief and to the point, can be found in this book. There are quite a few species of red fall leaves, taking *Acer truncatum*, *Cotinus coggygria*, *Sapium sebiferum* for examples. The red leaves look like flowers in the fall that is a good season in the year for tourism in the Central China. Among the herbage in Songshan Mountain plants that are of great value in admiring are plentiful. The only one I want to mention is *Convallaria keiskei*, and Songshan Mountain is the southern fringe of its distributional area. It is a shade-tolerant grass growing in small communities under forest. From its two green leaves comes out the scape on which white, bell-like and sweet flowers are hung, and the bouquet made of such flowers is one that European women like to wear.

It is quite evident that appropriate disposition and protection of all the plants can add much beauty to the famous mountain. Plants have the functions of restoring water, keeping soil from erosion, and purifying air, which help preserve such an environment of green hills, clear waters, and pure and healthy air. On the other hand, the more trees and grasses a mountain has, the more rare birds and animals it would attract, and a tourist landscape will be full of life with flowers blooming all the year and birds chirping in every valley.

This is a well-illustrated and excellent reference book which has recorded systematically all the vascular plants in Songshan Mountain, so it will facilitate readers' checking. It is also an important book for the studies of floristics and plant community as well as a handbook for exploitation of wild plants and design of gardens.

According to the compiling process introduced by the authors, I have skimmed through this work and checked a few sections. At the moment the book is to be published I would like to make a short comment here as congratulations on the publication and also as introduction to readers.

Wu Zhonglun

March 19, 1993, in Beijing
(Translated by Gao Xianming)

前 言

嵩山古称“中岳”，地处中原，位于暖温带的南部，是秦岭以东一块相对孤立的山体。本区地形复杂，植物资源丰富，植物区系南北过渡，东西交汇。为适应农、林、牧、副、医药等生产、科研和教学部门的需要，合理利用，保护与发展嵩山植物资源，在前人工作的基础上，结合教学实习，我们自1982年至1985年对嵩山的植物资源进行了调查，获得大量的植物标本。1985年至1988年由河南农业大学、河南中医学院、登封县林场、登封县林业局组成植物、植被考察组，对嵩山地区进行了系统的调查、采集和深入的研究，于1988年编写出《嵩山植物名录》和《嵩山各类资源植物名录》。1986—1989年在河南省医药公司的组织下，对嵩山的药用植物进行了系统调查，编写出嵩山药用植物名录。在以上工作的基础上，1990年至1992年，我们又进行了补点调查，完成了《嵩山植物志》的编写工作。


本志收录了嵩山地区野生及部分广泛引种栽培植物147科、643属、1540种及变种。书中的系统排列顺序：蕨类植物按秦仁昌教授1976年系统；裸子植物按《中国植物志》第七卷系统；被子植物各科按恩格勒和笛尔士(Engler—Diels)《Syllabus der Pflanzenfamilien》一书第11版系统排列，但将双子叶植物纲放在单子叶植物纲之前。文中植物中名、学名、属种的排列均以已出版的《中国植物志》为依据。文中插图参考了《中国高等植物图鉴》和各省区的植物志。

在调查研究及编写过程中，曾得到了中国科学院植物研究所、昆明植物研究所、西北植物研究所、武汉植物研究所、中国林业科学院、河南农业大学、嵩山国家森林公园、河南中医学院、河南省林业厅、郑州教育学院、豫西农业专科学校、河南师范大学、河南大学及登封县林业局等单位的有关同志的大力支持；尤其是原中国林业科学院院长、中国科学院学部委员吴中伦教授十分关心本书的编写工作，并亲自为本书作序，给我们以很大的鼓舞，谨此，深表谢忱。

由于我们的业务水平及工作条件所限，不妥之处，在所难免，恳请读者批评指正。

叶永忠

1993年1月于郑州



Introduction

Songshan Mountain was called the Central Mountain in the past. Located in the Central China, southern part of warm temperate Zone, it is a relatively isolated mountain in the east of Mt. Qinling. Due to its varied topography, Songshan Mountain is rich in plant resources, and has the characteristics of, in its flora, both northern and southern composition transiting and eastern and western one centralizing. In order to meet the needs of production, scientific research and teaching of agriculture, forestry, animal husbandry, sidelines, medicine, etc; we investigated the plant resources in Songshan Mountain during the period from 1982 to 1985 on the basis of the work done by predecessors, and collected a lot of plant specimens. From 1985 to 1988, a research group consisting of scientific and technical workers from Henan Agricultural University, Henan College of Traditional Chinese Medicine, Forest Farm and Forestry Bureau of Dengfeng County investigated systematically into this mountain region collecting specimens, resulted in the compilation of 'Plants in Songshan Mountain' and 'Sorted Resource Plants in Songshan Mountain'. About the same time, from 1986 to 1989, we made a thorough survey on the medicinal plants under the auspices of Henan Medicine Company and compiled 'the Medicinal plants in Songshan Mountain'. After that we had done some additional investigations on several parts of the region before 'Flora Songshanensis' was completed.

All the vascular plants of 1540 species and varieties distributed in Songshan Mountain region including some wide-grown ones, which belong to 643 genera in 147 families, have been recorded in this work. The systematic arrangement is as follows: Pteridophytae in Professor Ching Ren-chang's system of 1977; Gymnospermae in Professor Cheng Wan-chun's as in the seventh volume of 'Flora Reipublicae Popularis Sinicae'; and Angiospermae in Engler-Diels's as in the 11th edition of their work 'Syllabus der Pflanzenfamilien' except that dicotyledoneae is put before monocotyledoneae in this book instead of the reverse order in the original work. And the arrangement of genera and species including their scientific and Chinese names is referred to the published volumes of 'Flora Reipublicae Popularis Sinicae', and the illustrations are from 'Iconographia Cormophytorum Sinicorum' and the provincial floras as well.

During the course of investigation and complement we enjoyed the great support from the Institute of Botany of Academia Sinica, Kuming Institute of Botany, Northwest Institute of Botany, Wuhan Institute of Botany, Henan College of Traditional Chinese Medicine, Henan Forestry Department, Zhengzhou Educational Institute, West Henan Agricultural Training

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School, Henan Teacher's College, Henan university, the Forestry Bureau of Dengfeng County, etc. We are especially indebted to Professor Wu Chung—luen, the president of Chinese Academy of Forestry and a member of the Academic Council of Chinese Academy of Sciences, who has concerned himself with the compilement of this book and written the preface to it, which makes us feel highly honored and inspired. We are also most grateful for the support mentioned above.

Since our botanical knowledge and the working conditions are limited, it is hard to avoid mistakes and errors in this book, so, we will be thankful if readers oblige us with their valuable comments on it.

Ye Yongzhong

January 1, 1993, in Zhengzhou
(Translated by Gao Xianming)

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