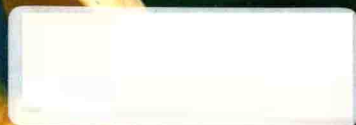


AN ILLUSTRATED MONOGRAPH OF
THE SWEET OSMANTHUS
CULTIVARS IN CHINA

中国桂花品种图志

主编 向其柏 Xiang Qibai 刘玉莲 Liu Yulian



浙江科学技术出版社
ZHEJIANG SCIENCE & TECHNOLOGY PRESS

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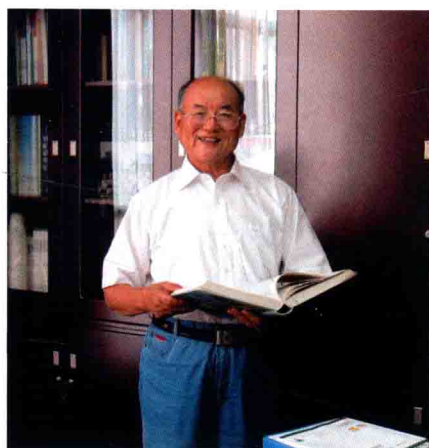
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向其柏教授，博士生导师。1958年毕业于南京林学院，1964年在该校研究生毕业，并留校任教已达50年。曾任该校林学系副主任、校研究生部主任。现任江苏省植物学会副理事长，IUBS栽培植物命名委员会委员、国际木犀属植物品种登录权威等职。1981~1983年在法国科学院巴黎自然博物馆从事植物分类研究，1995年至今兼该馆客座教授。1993年起享受国务院特殊津贴。

向教授长期从事植物分类学、树木学、园林植物、植物系统学、分类研究法等课程的教学，在科研方面尤其对五加科、樟科、木犀科的植物分类研究成果卓著。在国内外发表论文 120 余篇，发表植物新分类群达 100 余个，建立 1 个新属；主编、主译和参编的著作有《中国主要树种造林技术》、《中国树木志》（1、2、3、4 卷）、《室内观叶植物》、《彩图室内园艺大百科》、《国际栽培植物命名法规》（6、7 版）等 10 余部。他曾获省、部级科技成果奖多项，先后培养硕士、博士 55 名，考察访问了 20 余个国家，建立了广泛的国际联系，为国内外著名的植物分类学和园艺学家。

Xiang Qibai, a professor, doctoral supervisor of Nanjing Forestry University(NFU), from which graduated with bachelor degree in 1958, and with master degree in 1964. After then, he has been teaching there for 50 years. He has been a vice-director of the forestry department and dean of graduated school in NFU. At present he is vice-director of Jiangsu Society of Botany, the member of IUBS Commission for Nomenclature of Cultivated Plants, the International Cultivar Registration Authority for Osmanthus. From 1981-1983, he was studying on the taxonomy of plants in the Lab. de Phanérogamie, Muséum national d Histoire naturelle (Paris). And from 1995, he was invited to the same lab. as a visiting professor. The year of 1993 was a beginning that Prof. Xiang obtained the special allowance from State Council in China.

Prof. Xiang has been teaching Taxonomy of Plant, Dendrology, Landscape Plants, and the Research Method of Taxonomy for a long time. Particularly he has acquired great achievements in taxonomy of Araliaceae, Lauraceae and Oleaceae. He published about 120 papers, more than 100 new taxa of plants and established one new genus at home and abroad. As the chief editor, editor, or chief translator, he published more than 10 works: "Silviculture Technology of the Chinese Main Trees", "Sylva sinica" (vol.1.2.3.4), "Internal Plants of Foliage", "Jardins & Plantes D'interieur", "International Code of Nomenclature for Cultivated Plants" (ed.6,7) etc. He won the Scientific and Technological prizes in ministerial and provincial class. He has guided 55 graduated students who obtained doctor and master degree and visited more than 20 countries for scientific investigations, and established international communications widely as a famous botanist and horticulturist at home and abroad.



刘玉莲教授，硕士研究生导师。1935年12月出生于湖南新宁县。1958年毕业于南京林学院，从事园林植物教学与研究40多年。刘教授创建了南京林业大学园林专业；国内外发表主要论文50余篇；主持“城市绿化环境保护”，“南京特色生态园林”，“室内植物的引种及运用”，“桂花品种资源”，“盆景植物及新技术应用”等课题研究，分别获得部级、省级、市级科技进步二等、三等奖及金奖，出版著作8部。

Liu Yulian, a professor and master supervisor of Nanjing Forestry University (NFU), was born on December 1935 in Xinning County, Hunan Province. In 1958, she graduated from NFU, and then has been engaging in the teaching and studying on landscape plants for more than 40 years. Prof. Liu created the Landscape Architecture Major of NFU, published more than 50 papers at home and abroad.

She has presided over many subject researchs such as the Environment Protection of Urban Greening, Eco-landscape with Nanjing Feature, Introduction and Application of Internal Plants, the Resources of Sweet Osmanthus Cultivars, the Bonsai Plants and Application of New Technology etc. which won the second, third science and technology progress prize and golden prize in Ministerial and Provincial class. She also published 8 works.

序 言

FOREWORD

由国际生物学联盟栽培植物命名委员会成员 (Members of IUBS. Commission for Nomenclature of Cultivated Plants), 中国栽培植物命名和登录委员会副主任 (Vice-Chairman, The Chinese Commission for the Nomenclature and registration of Cultivated plants), 南京林业大学教授向其柏先生主编的《中国桂花品种图志》(An Illustrated Monograph of the Sweet Osmanthus Cultivars in China) 即将出版。这是木犀属植物品种分类方面的第一部权威性专著。

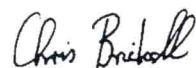
向教授是一位著名的植物分类学家。他对五加科和木犀科植物都有深入的研究, 特别是近二十余年来, 他和他所领导的研究团队对中国的传统名花、香花——桂花进行了执着的研究。按照《国际栽培植物命名法规》(International Code of Nomenclature for Cultivated Plants) 和《国际植物命名法规》(International Code of Botanical Nomenclature) 的要求, 在中国桂花产区开展了全面系统的调查研究, 对原有品种和新的品种进行了系统的整理和分类研究, 使桂花这一个种的栽培品种由原来的 40 余个增加到 160 余个; 拍摄了图片 4000 余幅, 收集了大量标本资料 (Standards), 摸清了分布和起源。在该《图志》中, 他首次向人们展示出具有精美照片的 122 个桂花栽培品种, 并作了详细的介绍。

中国是一个花卉大国, 是世界亚热带、温带地区国家中观赏植物种质资源丰富和多样性最突出的国家, 素有世界“园林之母”(China—The Mother of Gardens) 的美誉。许多原产中国的奇花异卉, 早已在世界各国的花园里绽放异彩。在英国皇家园林如邱园、爱丁堡植物园、威斯里植物园等栽种的中国木犀属植物就有 5 种, 如宝兴桂花 *Osmanthus serrulatus*, 山桂花 *O. delavayi*, 野桂花 *O. yunnanensis*, 红柄木犀 *O. armatus*, 桂花 *O. fragrans* 等。它们都是 19 ~ 20 世纪从中国引种的, 如今已成大树, 每年正常开花结实。

全世界约有 35 种木犀属植物, 它们都是优美、芳香的园林植物, 中国就拥有 24 种, 是世界木犀属植物的起源和分布中心。桂花是该属的代表种, 有 2500 年的栽培历史, 其品种资源丰富多样, 生态适应性广, 不仅在东亚地区, 而且在欧美许多国家也有引种栽培。

《图志》的出版将使木犀属植物资源在世界范围内进一步扩大应用, 产生一次巨大的飞跃, 对香花植物的育种带来新的希望。我作为国际栽培植物命名委员会主席, 要感谢向教授在翻译、宣传《国际栽培植物命名法规》(第六、七版中文本) 中所作的贡献, 他在《图志》中应用得非常完美。这对推动全球栽培植物的分类、命名, 稳定世界各国栽培植物的名称, 促进交流将起到巨大的指导作用。

国际生物学联盟栽培植物命名委员会主席



IUBS. Commission for Nomenclature of Cultivated Plants

FOREWORD 1

AN ILLUSTRATED MONOGRAPH OF THE SWEET OSMANTHUS CULTIVARS IN CHINA

This is an authoritative monograph on the cultivar classification of *Osmanthus fragrans*, the first of its kind on this very popular species. The Editor-in chief is Professor Xiang Qibai of Nanjing Forestry University, who is a member of The International Commission for the Nomenclature of Cultivated Plants of IUBS, and Vice-chairman of the Working Committee of the Chinese Horticultural Society for the Nomenclature and Registration of Cultivated Plants. A highly respected and authoritative systematic botanist, professor Xiang has carried out detailed research in the Family Araliaceae and also on the genus *Osmanthus* in the Family Oleaceae. During the last two decades, Professor Xiang, together with his colleagues and postgraduate students, has been deeply involved in studying the many cultivars of *Osmanthus fragrans*, a species that has a very long tradition of cultivation in China. Based on the principles of *International Code of Nomenclature for Cultivated Plants* (ICNCP) and *The International Code of Botanical Nomenclature* (ICBN), Professor Xiang and his team have conducted systematic and comprehensive surveys of *O. fragrans* cultivars throughout China, and have reclassified scientifically and standardized the old cultivars of *O. fragrans* in China. Some new cultivars have also been recorded and named. The number of *O. fragrans* of described cultivars has increased during this research program from around 40 to over 160. Over 4000 high quality photographs have been taken of these cultivars and large numbers of herbarium specimens have been collected. This comprehensive account includes over 122 carefully selected, high quality photographs of *O. fragrans* cultivars.

China has one of the richest plant resources of ornamental plants in those countries in the subtropical and temperate climatic zones of the world, and it has long been called "China, Mother of Gardens" as many of its native plants, particularly colorful ornamentals such as Magnolias and Rhododendrons, have been very widely grown in gardens throughout the world. *Osmanthus*, species including *O. serrulatus*, *O. delavayi*, *O. yunnanensis*, *O. armatus* and *O. fragrans*, were introduced into British gardens including the Royal Botanic Gardens, Kew, the Royal Botanic Gardens Edinburgh and the Royal Horticultural Society's Garden, Wisley from China during the 19th and 20th centuries where they have now developed into large trees and shrubs that flower freely each year.

About 35 species of *Osmanthus* have been described, all of which are very attractive and fragrant garden plants. China is the world centre of distribution for the genus with 24 species of *Osmanthus* being found in various provinces of the country. *Osmanthus fragrans*, the "Sweet Osmanthus" is the type species of the genus and selected cultivars have been cultivated in China for more than 2500 years. Because of its rich germplasm and strong ecological adaptability, *O. fragrans* has not only been widely introduced into cultivation in East Asia, but also cultivated in many parts of the world particularly in Europe and North America.

The publication of this monograph will further enhance the worldwide interest and popularity of the genus *Osmanthus* and encourage the breeding of new, fragrant cultivars for growing in our gardens world wide. As the Chairman of IUBS Commission for the Nomenclature of Cultivated Plants, I would like also to express my sincere thanks to Professor Xiang for his contribution in arranging the translation of *The International Code of Nomenclature for Cultivated Plants* (the 6th and 7th Chinese editions) in China and promoting the Code and its rules by applying them when researching and compiling this monograph. I believe that the publication of this monograph will play a very important role in promoting the classification and stabilization of the nomenclature of cultivated plants worldwide.



Chairman C. D. Brickell

IUBS, Commission for Nomenclature of Cultivated Plants

序言二

FOREWORD

由向其柏、刘玉莲两教授主编，浙江科学技术出版社出版发行之巨著《中国桂花品种图志》(简称《桂志》)，现已完稿，即将公诸于世了。我认为此书之出版，标志着我国传统名花之品种国际登录和系统研究正在扩展和深入。而此书之问世，则标志着其在民族传统花卉分类学领域中，又走上了新的台阶，让中华民族花卉学达到了新的高度。

我国被西方有识之士誉称作“世界园林之母”(E.H.Wilson:《China, Mother of Gardens》)，对全球新园林植物之引种、育种，提供了大批奇花异草素材。故威尔逊在该书自序中写道：“我的成果是让 1000 种以上全新植物在欧美园林中应用、扎根。”而我则进而认为，“我们要以不懈的努力，从被发现的、以被动提供丰富花卉新种质资源为主的‘园林之母’和‘花卉王国’，成为主动批量生产，并向全世界源源不断地提供新花卉和新奇园艺植物的生产大国”(陈俊愉 2007)。

除以上所提不断向世界提供花卉新资源外，我国还有向全球提供栽培传统名花优秀品种之任务。如果说向世界提供新优花卉种质资源所贡献的主要是野生优秀原料的话，那么进而提供我国优秀栽培品种资源，就是世界园林之母以多年累代精心培育之成果，向全球作出的系统贡献了。但以往由于种种原因，我国在系统提供品种资源方面，做得十分不够。如在 2000 年以前，原已向世界提供全国系统品种资源成果资料的，仅梅花、牡丹、荷花、菊花等几种(类)而已。

自本世纪之初，即从 2000 年夏起始，向其柏教授接受了我们的建议，着手木犀属和桂花国际品种登录的准备工作。仅仅 4 年，业已成效显著，成绩斐然。2004 年 10 月，向其柏教授接获国际园艺学会命名与登录委员会执行主席 A.C.Leslie 博士的通知，谓国际园艺学会已同意任命中国花卉协会桂花分会向其柏教授为木犀属栽培植物国际登录权威。于是我国继 1998 年梅花获得首项登录权威之后，出现了第二个国际登录权威。

向其柏教授等在申报批准后几年中，做了大量调查、记载、登录、研讨等一系列工作。2005 年国家林业局同意成立了木犀属植物栽培品种国际登录中心。而这些工作的主要指标之一，就是编著、出版《中国桂花品种图志》。现在《桂志》在向其柏教授和全体编委以及浙江科学技术出版社与工作人员等共同努力下，终于在 2007 年 11 月脱稿。于是，我国第二个国际登录栽培植物品种图志，就要和国内外爱桂人士见面了。这是园林园艺界的一桩大事。其与前所出版的品种图志相较，的确涌现出一些新的特点：

第一，《桂志》既包括了桂花品种与品种群，还包括了木犀属 *Osmanthus* 种类、地理分布与植物栽培现状。书中介绍了木犀属植物 35 种，其中亚洲分布 28 种，占全属总种数之 84.9%，而在亚洲分布种中，如中国原产之宝兴桂花 *O. serrulatus*，分布于四川峨眉山、宝兴等地，英国早已引去栽培，树、花均美。我国却在向教授等为编著此书而在四川各地山野调查时，方亲见此种。英国园林中已有其大树供游人观赏，我国的嘉木却至今才知其原产四川，向教授等终于把国宝挖掘了出来，厥功甚伟，是值得报道的亮点之一。

第二，《桂志》是在批准木犀属登录权威之后，再写专著的。这与《中国梅花品种图志》(1989)、《中国梅花》(1996)两部专著先出版，然后据以申报国际登录权威

FOREWORD 2

After years of arduous work, *An Illustrated Monograph of the Sweet Osmanthus Cultivars in China* (Monograph), the grand works edited by Professor Xiang Qibai and Professor Liu Yulian, is set to be published by Zhejiang Science & Technology Press. In my humble opinion, the completion of this great book marks a significant step in furthering international registration and systematic research of traditional ornamental flowers of China, which will be surely to make a great contribution to floricultural science in China.

Praised as “Mother of Gardens” by Ernest H. Wilson, the early 20th century plant hunter (Wilson, 1929), China has provided a vast number of stunning ornamental plant species that are adopted widely by gardeners all over the world. Wilson boasted in the preface to *China, Mother of Gardens* that he had introduced over 1000 new plant species to European and American gardens. It is my firm belief that China, as “Mother of Gardens” and “Kingdom of Flowers”, should make unremitting efforts to become a powerhouse of floral industry that proactively creates, produces in quantity, and exports new cultivars of ornamental plants from that only passively provides the rich and discovered resources of new flower cultivars to the world “(Chen, 2007).

Meanwhile, China is saddled with the responsibility of providing gardeners throughout the world with outstanding cultivars of traditional ornamental flowers. China has contributed to the creation of new cultivars of ornamental plants mainly by providing genetic materials from wild plants. As the world’s oldest continuous civilization, China meanwhile has a large number of excellent traditional cultivars of ornamental plants to offer the world. In the past, China did itself a disservice by failing to internationally register traditional cultivars of ornamental plants systematically. For example, only *Prunus mume*, *Paeonia*, *Nelumbo nucifera* and *Chrysanthemum* cultivars were registered internationally pre-2000. In the summer of 2000, Professor Xiang Qibai began to prepare for international registration of cultivars in the Genus *Osmanthus*, especially *Osmanthus fragrans* cultivars, at our suggestion. Thenceforth this project proceeded apace. In October 2004, the Sweet Osmanthus Branch of the Chinese Flower Association, Professor Xiang Qibai was appointed as International Cultivar Registration Authority (ICRA) for *Osmanthus* by Dr. A. C. Leslie, acting Chairman of ISHS (International Society for Horticulture Science) Commission for Nomenclature and Cultivar Registration. Thus China earns another ICRA after getting the first one for *Prunus mume* in 1998.

In the following three years after this appointment, Professor Xiang and his associates extensively investigated *Osmanthus fragrans* cultivars. In 2005, the State Forestry Administration of China agreed to the establishment of the International Registration Center for *Osmanthus*. The laboring efforts of three years have distilled into *An Illustrated Monograph to Osmanthus fragrans Cultivars of China*. Professor Xiang, together with his associates and Zhejiang Science & Technology Press worked tirelessly on this munificent book, completing it in November 2007. The illustrated monograph of China’s second ICRA plant is thus poised to greet lovers of *Osmanthus fragrans* all over the world. The release of this book shall be a major event in horticultural circles. Compared to *Illustrated Monograph of Cultivars* published previously, this book has several new features:

First, the Monograph describes geographic distributions and cultivation statues of not only *O. fragrans* cultivars, but also other species in the Genus *Osmanthus*. Thirty-five *Osmanthus* species are depicted, of which 28 (84.9% of the entire Genus) are found in Asia. Many Asian species have been hitherto neglected by Chinese scholars. *O. serrulatus*, a species endemic to Sichuan, was introduced into Britain a long time ago for its beauty. Many *O. serrulatus* individuals cultivated in British gardens were growing into fair sized trees while Chinese scholars remained oblivious to the origin of this gorgeous species. Professor Xiang and his associates discovered *O. serrulatus* individuals living in the wild while doing research for the Monograph in Sichuan. They have thus identified Sichuan as the source region of this national treasure. Great are their services to our country.

Second, the Monograph was being worked upon after the appointment of ICRA for the genus *Osmanthus*.

(1998年被批准)正好次序相反。这种事实过程,说明《桂志》编著者决心大、效率高,才在短期内通过高效工作而取得了出色的成果。这种效率和速度是惊人的,也是很值得后继者,尤其是更多的其他中华嘉木名花登录权威申请者仿效和学习的。

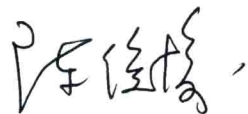
第三,《桂志》内容丰富,多方包罗。全书共11章,除品种分类主题外,还包括了桂花品种调查记载程序与项目,桂花4个品种群分类体系简介以及桂花繁殖、栽培、病虫害防治和桂花在风景园林中应用等内容。在“附录”中,又介绍了多种木犀属植物的概况,最后还列了很详尽的参考文献,因此可以说,《桂志》其实是一部“**桂花品种图志与木犀属植物大全**”。

第四,木犀属共35种,中国计有24种,占总种数之72.7%。中国是该属的世界分布中心。在中国范围内,木犀植物广为分布,其资源丰富,但开发利用甚少。这种状况与特点,过去长期未见有人指出过。

第五,桂花系长寿树种,以往甚少系统报道。这次为准备《桂志》,经调查,记载了不少古桂花树,拍摄了一批中华古桂,为全书增色不少。如中国最老的桂花寿星已高龄2200余年,长在陕西省南郑县圣水寺内,树高13米,覆盖面400m²,系全球老桂之魁首(该书图2-1-1)。书中列出木犀属分种检索表,是在国内外其他书刊中从未见过的珍贵资料。对于每个桂花品种,均各按品种群(四季桂品种群、银桂品种群、金桂品种群、丹桂品种群)分别介绍。在各品种简介中,既包括形态特征,又有生物学特性,还涉及产地与识别要点,并附彩照。对于花色,品种均按英国皇家园艺学会色谱标明。总之,各项记载与做法均严格按照国际园艺学会规定办理。第一主编向其柏教授系《国际栽培植物命名法规》(第6、7版)之主要翻译者。此次编著《桂志》在品种记载、分类体系、品种命名、书写方式等等中,一切均严格按照法规和国际通行规定办理。这种遵纪守法的科学态度与认真做法,是值得称许和提倡的。

第六,全书共记载、简介桂花品种166个,附图多帧,每品1幅以上,可谓内容丰富,图文并茂。此为国内和世界上第一部**桂花品种图志**,将以其调查记载精到、研究内容精确、装帧印刷精美而一鸣惊人。故《桂志》确系一“三精”佳作,是中国传统名花系统研究成果中之佼佼者。

在写就以上小序之后,我更愿借此机缘表达一下个人情怀。因中国园艺学会栽培植物命名与登录工作委员会最近刚召开过全国会议,力争三年内申报菊花及菊属植物、银杏、荔枝为国际品种登录权威成功。此际《桂志》公开问世,不啻为它们三者之申请提供了样板和参考。作为“世界园林之母”的中华祖国,在本世纪内力争植物国际登录权威达到“两位数”(如20~30个),应当不是妄想和幻想,端视吾人之决心与努力了,是为序。



九十叟陈俊愉

(2007年12月6日于北京林业大学梅菊斋中)

Previously, China was awarded ICRA for *Prunus mume* (1998) only after *An Illustrated Monograph to Prunus mume Cultivars of China* (1989) and *Prunus mume Cultivars of China* (1996) were published. Editors of the *Guide* must have been extremely determined and highly efficient to have completed this voluminous book within such a short time span. This efficiency and speed are astonishing and should be emulated by people striving for appointments of ICRA for Chinese horticultural plants.

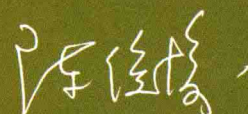
Third, the *Monograph* is extremely informative. With 11 chapters, this book covers many diverse topics including cultivar classification methods, cultivar investigation procedures, the four-group classification system of *O. fragrans* cultivars, as well as reproduction, cultivation, disease & pest control, and gardening applications of *O. fragrans*. Many other *Osmanthus* species are described in the appendix; there is also an impressive list of references. The *monograph* thus may be considered as both an illustrated monograph to *O. fragrans* cultivars and an encyclopedia of *Osmanthus* species.

Fourth, there are 35 species in the *Osmanthus*, possessing 24 species in China, with accounting for 72.7% of the whole genus. China is the undisputable distribution center of this genus in the world. There are many species widely distributed and abundant, but little exploited. This situation was not even mentioned prior to the completion of this *monograph*.

Fifth, *O. fragrans* is a long-lived species, yet this fact is underappreciated. While doing research for this *monograph*, Professor Xiang and his associates visited a number of old *O. fragrans* trees and took pictures of them. Some of these pictures are included in this work, making it a more appealing book. Living in Temple Holy Water, Nanzheng County, Shaanxi, the oldest *O. fragrans* tree in China is thirteen-meter tall and over 2200 years old (Fig. 2-1-1 of the *Monograph*). Its canopy covers an area of approximately 400 m². This is the oldest and largest of all *O. fragrans* trees worldwide. The *Monograph* provides a complete identification key for *Osmanthus* species, which is unavailable anywhere else and extremely valuable. The *O. fragrans* cultivars are divided into four cultivar groups (Asiaticus Group, Albus Group, Luteus Group and Aurantiacus Group). The *Monograph* provides a brief description of each cultivar, which includes morphological characteristics, biological traits, geographic distribution, methods for identification, and a color photo. Flower colors of the cultivars are recorded according to the RHS (Royal Horticultural Society) Color Chart. In sum, contents of the *Guide* all conform to ISHS requirements. This is unsurprising since Professor Xiang, editor-in-chief of the *Guide*, was the principal translator of *International Code of Nomenclature for Cultivated Plants* (6th and 7th edition).

Sixth, the *Monograph* describes 166 *O. fragrans* cultivars, each with at least one picture. This copious and illuminating book is the first illustrated monograph to *O. fragrans* cultivars in the world. This book is an outstanding accomplishment of systematic researches on traditional ornamental flowers of China. It shall not fail to amaze.

Finally, I would like to take this chance to express some personal feelings. The CSHS (Chinese Society for Horticultural Science) Commission for Nomenclature and Registration of Cultivated Plants recently convened a national conference. It is decided that China shall strive to acquire International Cultivar Registration Authorities for *Chrysanthemum*, *Ginkgo biloba* and *Litchi chinensis* cultivars in three years. This *Monograph* can be extremely valuable to this effort as both a template and a source of references. China, as "Mother of Gardens", should be in possession of twenty to thirty ICRA's by the end of this century. This shall be neither a dream nor a fantasy if we are determined and hard-working.



Chen Junyu, 90 years old

Professor of the Beijing Forestry University

Academician of the Chinese Academy of Engineering

December 6, 2007

前言

桂花为我国传统名花，是香花中最具观赏和实用价值的奇葩。对桂花的认识和利用虽有长达 2500 年的悠久历史，但文字记载多见于诗词歌赋之中，仅仅记载了桂花的一些类别，不像梅花、牡丹、菊花、兰花、山茶等传统名花在历史上有阶段性、系统性总结的专著和图谱。在长期栽培和选育的历史进程中，桂花的品种十分丰富，由于历史的局限，古人不可能对桂花进行详细的调查记载，更不可能进行系统的理论探讨和研究。对桂花品种的系统研究，始于 20 世纪 80 年代，先后有陈俊愉（1983）、刘玉莲（1985）、鲁涤非（1986）、朱长山（1992）等进行了桂花的品种分类研究及提出了分类标准，但由于对品种的概念、分类方法、标准等的认识不尽相同，致使桂花的品种分类仍较混乱，记载不统一。在名称上“同名异物”、“同物异名”的现象较多。在我国正式见于书刊上的桂花品种，其数量也并不多，而比较可靠的品种还不足 40 个。刘玉莲、向其柏于 2000 年《中国花卉科技二十年》上著文报道实为 35 个，而且当时在品种分类、命名、描述、发表等方面都没有与国际接轨，即不符合《国际栽培植物命名法规》的规范要求。

从 2000 年夏季开始，在中国工程院院士、梅花品种国际登录权威陈俊愉教授，工程院院士、著名林木育种专家王明庥院士，中国风景园林学会名誉理事长程绪珂教授等前辈的倡导下，提出了向国际生物科学联盟（IUBS）植物品种命名和登录委员会申报桂花品种国际登录权威的目标。我们在原有的基础上先后组织数十名专家、教授和具有

实践经验的桂花工作者，在中国花卉协会桂花分会的大力支持和资助下，对木犀属的野生种和栽培品种进行了全面调查，开展了全方位、多学科的系统研究。通过桂花品种分类、野生桂花群落调查、桂花生物学、繁殖栽培应用等研究，先后采集标本计 1000 余号，拍摄照片 4000 余幅，对各地调查的新资源进行总结、对比、分析，发现了一批新品种，并于 2004 年正式发表 37 个，先后编辑出版了《中国桂花 I》、《中国桂花 II》、首届桂花国际研讨会特刊、木犀属种与品种名录、中国桂花品种图谱、中国古桂等资料，建立了新的桂花品种分类系统，将桂花分为四季桂、银桂、金桂、丹桂四个品种群，各品种群再分品种，共记载 166 个品种。各品种有规范的名称，确切的描述，简洁易记，科学通俗，分布和起源清楚，为《中国桂花品种图志》的出版奠定了基础。

《中国桂花品种图志》全面反映了中国桂花品种分类的研究成果，是世界范围内的第一本木犀属品种图志。本《图志》详细介绍了 122 个桂花品种的性状，并有精美的彩色图片，图文并茂。在附录中特别介绍了全球木犀属 35 个种和一些品种的简要信息，并附种的模式照片；有的种和品种还插有实物照片，这些都很珍贵，很有参考价值。

中国素有世界“园林之母”的美誉（China—The Mother of Gardens），许多特产的花卉早已在世界许多国家的花园里绽放异彩，但在我国仍有相当一部分植物沉睡在深山密林中。本《图志》的出版：一是让国人了解自己的“家底”；二是为满足人们对园林植物种与品种

PREFACE

Sweet Osmanthus is a traditionally popular flower and one of the most valuable and ornamental fragrant flowers in China. It has been recognized and used in China for about 2500 years. But most often it was recorded in ancient poems and songs with only a general account of types rather than a systematically and periodically literary record like *Prunus mume*, *Paeonia suffruticosa*, *Dendranthema morifolium*, Orchid, Camellia, those traditional well-known flowers. Long-standing cultivation and the process of history has enabled us to boast of rich cultivars of Sweet Osmanthus, but due to the limitations of history, there had never been any detailed Sweet Osmanthus investigation, or theoretical and systematical classification research on Sweet Osmanthus and its cultivars had never been conducted until the 1980s. At that time a group of scientists devoted themselves to research into Sweet Osmanthus and its cultivars, and into its classification system; this group included Chen Junyu(1983), Liu Yulian(1985), Lu Difei(1986), and Zhu Changshan(1992). They put forward the cultivar classification principles and grades, but there was quite a difference in understanding of cultivars, in methods, and in standards, so the recordings of Sweet Osmanthus and its cultivars were confusing and bewildering, which led to an undesirable phenomenon: in some cases the same name had different cultivars (homonym); in others the same cultivar had the various names (synonym). In our formerly recorded books there were less than 40 (or fewer) Sweet Osmanthus cultivars. In *Twenty years of Horticulture Science and Technology of China*, published in 2000, 35 Sweet Osmanthus cultivars (from the statistics by Liu Yulian and Xiang Qibai) were reported, but they did not meet the criteria of the International Code of Nomenclature of Cultivated Plants for classification, naming, description and publication.

Since the summer of 2000, under the guidance and direction of Professor Chen Junyu (a member of the Chinese Academy of Engineering), Professor Wang Mingxiu, (also a member of Chinese Academy of Engineering); and Professor Cheng Xuke, we have begun the process applying for the International Cultivar Registration Authority of *Osmanthus*. A research team of dozens of teachers and students was established, together with the experts and experienced technicians across the country; it was financed by Sweet Osmanthus Branch of the China Flower Association, and its purpose was to carry out a nationwide investigation, including thorough and systematic research of wild and cultivated *Osmanthus* across China. This cross-nation research covered the *Osmanthus* cultivar classification, wild *Osmanthus* communities, *Osmanthus* biology, *Osmanthus* reproduction, cultivation, and utilization. More than 1000 specimens (standards) were collected, and 4000 pictures were taken. Then the summarization, comparisons and analyses were conducted on the new resources collected from the different sites in China. Thirty-seven new cultivars were published in 2004; subsequent publications were as follows: the First and Second Collections of China Sweet Osmanthus; Special Issue of the First International Sweet Osmanthus Symposium, A Preliminary Checklist of Species and Cultivars of *Osmanthus*, The Illustration of China Sweet Osmanthus Cultivars, and other additional publications. Thus, a new *Osmanthus* cultivar classification system: species, groups, cultivars, has been established. We now know that Sweet Osmanthus was divided into four Groups: Asiaticus Group, Albus Group, Luteus Group, and Aurantiacus Group. Furthermore, more cultivars are classified based on each group. To date we have identified a total of 166 cultivars which have more standardized denomination, accuracy, simplicity, easier popularization and clearer properties, together with their clearly demarked

前言

的要求，大力开发利用，保护木犀属种质资源，开展香花植物的育种。这将对植物多样性的保护与人类生存环境的改善、和谐起到积极的作用。

衷心感谢南京林业大学、中国花卉协会桂花分会、上海市绿化管理局、上海市徐汇区人民政府、全国桂花产区的园林、林业部门的领导和科技人员，是你们在我们申请木犀属品种国际登录权威、进行品种资源调查和研究过程中，提供种种帮助和方便，才有可能取得今天的成果，才有可能使我们完成这一艰巨而光荣的历史使命。这本《图志》的出版是我们国际木犀属品种登录中心答谢全国人民对桂花的厚爱的一种

方式，并以此告慰历代辛勤耕耘、培育桂花的先辈们！我们要特别感谢国际生物联盟栽培植物命名委员会主席，C. D. Brickell 博士对我们的支持和帮助，并欣然为此作序。

《图志》即将出版，审视全书内容，我们深感经验缺乏，书中错误和不妥之处均在所难免，衷心欢迎读者批评指正。

国际木犀属植物品种登录中心

何其桢

2007年8月1日

PREFACE

distributions and origins, all of which has laid a solid foundation on which to base the publication of “An Illustrated Monograph of the Sweet Osmanthus Cultivars in China”.

The monograph mainly reflects the latest research achievements of Sweet Osmanthus cultivars classification in China; it also covers the over-all description and introduction to other species of *Osmanthus*, making it the first illustrated monograph of *Osmanthus* cultivars in the world. This monograph primarily gives full details of characteristics for 122 cultivars of *Osmanthus*, enhancing the introductions with excellent pictures. The supplement I. includes a special introduction to 35 species of the genus in the world with accompanying photographs of types, such world-famous systematic botanists like Dr. P.S. Green studied these species and cultivars. “China–The Mother of Gardens”, many rare and beautiful flowers as endemic species of China are now blooming all over the world, but in China many of them are still hiding unrevealed in the virgin forest and beyond. An important purpose of the monograph is to provide more detailed information about our Mother of Gardens, the Hometown of Sweet Osmanthus and the distribution center of the world, and to meet people’s needs for information about ornamental plants and species. This will enable interested parties to make full use of these resources, will aid in protecting this valuable cultivar, and will assist with research on the breeding of fragrant flowers, all of which will contribute a great deal to the protection of bio-diversity and the environment for human existence.

We’d like to extend our acknowledgements to Nanjing Forestry University, the *Osmanthus* Branch of Chinese Floral Association, Greenization Management Bureau of Shanghai, People’s Government of Xuhui District of Shanghai, all administrative authorities, experts and staff workers from State Forestry Administration of China as well as from *Osmanthus* production areas across China. We realize this monograph is a product of the excellent input we have received from many colleagues, experts, and those who have contributed their intelligence and wisdom, especially while we were applying for the International Cultivar Registration Authority for *Osmanthus*, and conducting thorough investigation and research on the cultivars of *Osmanthus fragrans* all over China. Without your sincere and continuous input, support and concern, this monograph would not be as well received as it is, because the quality would not be there. Special thanks to Dr. C.D. Brickell, Chairman of IUBS. Commission for Nomenclature of Cultivated Plants who has reviewed this monograph and provided valuable input.

We continue to encourage our readers, experts, and those concerned to continue to provide us with their candid comments-both positive and negative-as well as good suggestions.

International Cultivar Registration Center For Osmanthus (ICRCO)



January 1.2007



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