内蒙古植物志

（第二版）

第一卷

内蒙古人民出版社

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為內蒙古植物志第二版題

吳征鎰 一九九六年六月十日

中国科学院学院士
昆明植物研究所名誉所长 吴征镒研究员题词
《中国植物志》主编

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AUCTORES

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第一版序言

《内蒙古植物志》自从1977年开始出版以来，经过该志编辑委员会全体编著者共同努力，已于今年年底全部交稿，明年即可全部出版。全书共八卷，总计约四百多万字，附图版共1036幅，系统记载了内蒙古自治区所产几乎全部维管束植物共131科、660属、2167种。内容丰富，图文并茂，这是我国植物科学中一项重要科研成果，值得庆祝！

特别应该指出的是《内蒙古植物志》为祖国边疆少数民族地区的科学文化宝库，增加了崭新的内容，它为合理开发利用边疆植物资源，发展农、林、牧业生产和改善环境事业，提供了基础科学资料，同时为提高植物教学科研水平，对于进一步研究亚洲大陆的植物区系和植物地理具有十分重要的学术意义。

我国自解放以后，由于党和国家对于科学事业的重视，自1959年起在中国科学院的领导和支持下，组织全国植物分类学工作者共同协作，开始编写《中国植物志》，由于工作量大，至今已完成初稿及出版的志书，仅到全书80卷的一半，尚须继续数年努力，始能全部完成任务。至于各省（区）市植物志的编写则由各省（区）市分别进行，先后有广州植物志、海南植物志、东北木本植物图志、东北草本植物志、秦岭植物志、北京植物志，以及江苏、湖北、四川、云南、贵州、西藏、广西、河北等省（区）植物志，但到今年除海南植物志、江苏植物志和北京植物志等三部出齐以外，其余各省志书大部分尚在编写或付印中。试就各省（区）地方植物志出版情况比较，《内蒙古植物志》的完成，不论在速度上和质量上，都占着优先的地位。

这些成就应归功于内蒙古自治区党委和科委领导的亲切关怀与大力支持，归功于内蒙古十多所大专院校和农、林、医、畜等科研单位的科学工作者积极参加和团结协作，其中特别是内蒙古大学生物系在组织协调和规划设计等方面起了十分重要的带头作用，才保证了编写工作的顺利进行，按期完成了全书的编写任务。

这部植物志具有许多优点和特点，值得提出的是：其一，注意发扬地区的特色，如在每一种植物下的蒙语名称、地方别名，以及在本区的生态环境、生态特性等都进行了准确和详细的描述。其二，注意调查植物的经济价值，如药材、牧草、饲料、林木、薪炭、蔬菜、果树以及轻工业原料等方面的利用，都进行了简要的记载和评价。其三，所有科、属、种的描写均能简明扼要，通俗易懂，检索表采用显明性状，便于鉴定。这样志书将对普及植物分类学知识，解决植物命名问题，起到良好的推动作用。

当然不容讳言，由于历史的原因，本书所出八卷在编写规格和图文质量，先后各卷尚有不一致的缺陷。例如1979年起中央决定恢复内蒙古自治区1969年以前的行政区划范围，植物志的产地分布应把东四盟和阿拉善盟的全部种类收容进来，特别对先出的二、三、四卷，必须增订。早期有些种类遗漏者，有些图版插图不完善者和有些未曾引用原始文献者，都可藉再版机会补充修正，力求全书的统一与完整。又在八卷之后，建议增编全书的科名、属名和种名的总索引，以便植物学工作者检查利用。

总之，《内蒙古植物志》是一部成功的科学著作，具有许多优点和特点，值得我们从事植物分类学工作者学习和借鉴。祝贺之余，特表敬意！

中国植物志编委会主编　俞德浚

1984年12月20日

PREFACE TO THE FIRST EDITION

"Flora Intramongolica" will be completed by the end of 1984 and published in its entirety by the end of 1985. This will mark the end of a nine year effort that began in 1977. It is the result of common efforts on the part of all writers of the compiling commission. The Flora consists of eight volumes, over four millions words with 1036 plates of line drawings. The Flora records systematically nearly all vascular plants found in Inner Mongolia Autonomous Region. They belong to 131 families, 660 genera and 2167 species. The contents are written well, contain high quality illustrations, and informations, which make the Flora is an important achivement in the botanical scientific research efforts of China, it is worth to be complimented!

It should be emphatically noted that "Flora Intramonogolica" adds new knowledge to the scientific and cultural treasure - house of border areas inhabited by minority nationalities and supplies basic scientific materials for rationally utilizing plant resources of the remote border provinces areas, developing production of agriculture, forestry and animal husbandry and improving the cause of environmental protection as well. It also has very important academic contributions to make in enhancing the level of teaching and research in the field of botany and further studying the flora and phytogeography of East Asia.

After Liberation, the Party and government paid a great deal of attention to scientific endeavours. This support, in conjunction with the leadership and support of the Chinese Academy of Science, allowed us to organize extensive cooperation among plant taxonomic workers throughout China in order to begin to compile "Flora Reipublicae Popularis Sinicae" in 1959. Up to the present time, the volumes which have been finished in first draft form and published formally only cover one half of all of the China Flora (eighty volumes are projected). It is necessary that we should continue to work hard in the next few years so that a publication of the whole Flora can be completed. The complication of local Floras of every area (Province, autonomous region and city) is undertaken by their own areas. Many areas of our country have successively begun to compile their own Floras. They are listed as follows: "Flora Guangzhouensis", "Flora Hainanica", "Illustratio Plantarum Lignosarum Chinae Boreali - Orientalis", "Flora Plantarum Herbacearum Chinae Boreali - Orientalis", "Flora Tsinlingensis", "Flora Beijingensis", "Flora Jiangsuensis", "Flora Hupehensis", "Flora Sichuanica", "Flora Yunnanica", "Flora Guizhouensis", "Flora Xizangica", "Flora Guangziensis", "Flora Hebeiensis" etc. However, until this year, only "Flora Hainanica", "Flora Jiangsuensis" and "Flora Beijingensis" have been published in its entirety. The local Floras of the other areas are being compiled or are in the process of being printed. In comparion with other areas, the completion of "Flora Intramongolica" has been done with an admirable degree of speed and is of admirable quality.

This commendable effort is due to the concern and support of the leaders of the Scientific and Technological Commission of the Inner Mongolia Autonomous Region, also to the active participation and warm cooperation of the scientific workers in botany from more than ten higher universities, colleges and institutes of agriculture, forestry, medicine and animal husbandry and others in Inner Mongolia. Special recognition should be given to the Biology Department of Inner Mongolia University for making a very important contribution in organizing, harmonizing, planning and designing this effort. They led to the smooth compiling of the Flora and aided the publication of the Flora in good time.

The Flora is imbued with many merits and unique characteristics, among which the following aspects are worth mentioning. 1. It pays special attention to unique local characteristics. For example, for each species. it gives accurate and detailed records of the Mongolian name, local name and nature environment, and ecological characteristics. 2. It takes notice of economic values of the plants. For example, it makes brief evaluations of the use value of various plants for crude drugs, fodder, woods, firewood, vegetables, fruits, raw matrials for light industry, and so on. 3. It is brief and concise, and all descriptions are easily understood in terms of family, genus and species. This is helped by the adoption of obvious characters in the keys. As a result of this clarity, the Flora will play a role in popularizing knowledge of plant taxonomy and solving problems of plant nomenclature.

Of course, eight volumes may possess some sections which are in disagreement in the style of compiling and the quality of drawing and writing. For instance, in 1979, the Central government decided to review the administrative division of Inner Mongolia Autonomous Region as made before 1969, so the areas of plant occurrence and distribution ranges should include all species in the four leagues of eastern Inner Mongolia and the Alashan league of western Inner Mongolia where were included in other provinces before 1969. Consequently, volumes 2,3,and 4 should be revised and enlarged. Also,there are cases where certain species were omitted in early volumes, some illustrations could be improved and in some cases the original literature sources were not cited. When the opportunity arrives these inperfections should be corrected. It is also suggested that a general index for latin names of family, genus and species should be supplemented after the eight volumes being published,so that botanical workers will be able to find their desired informations more quickly.

In a word, "Flora Intramongolica" is a successful scientific work with many advantages and unique characteristics. It is worth emulating and using as a reference work for plant taxonomic workers. Many thanks for completing the Flora and we congratulate its publication!

Yu De - jun
Chief Editor of Compiling Commission
of "Flora Reipublicae Popularis Sinicae",
Academia Sinica, Beijing.
Dec. 20, 1984

第二版序言

我国近代植物分类学的研究在本世纪初才开始起步，到1949年新中国成立的三十余年间，主要是研究机构的筹建，进行标本采集工作，进行一些专科专属的工作等等，关于地区植物志的编写工作甚少开展。可以说，这个时期是我国近代植物分类学开始的一个准备阶段。新中国成立后，从五十年代中到六十年代初，先后出版了《东北树木图志》、《广州植物志》、《陕甘宁盆地植物志》、《江苏南部种子植物手册》，《东北植物检索表》、《北京植物志》、《海南植物志》二卷等，这些著作的问世揭开了我国地区植物志编写工作的序幕。1966年，文化大革命开始，科研工作大部停顿，但在1969和1970年间，在全国范围内掀起了一个中草药普查的热潮，在这个热潮中，为鉴定大量的中草药植物标本，植物分类学研究工作得到了促进。在文化大革命后期，当中草药普查工作尚未完全结束时，另一个编写地区植物志的热潮接着兴起了，这个热潮来势颇为迅猛，且至今不衰。在这近二十年的时间中，我国多数省、区都出版了自己的植物志、检索表或名录等著作。在这大量的地区植物志中，《内蒙古植物志》是突出的一部。

为编写《内蒙古植物志》，在1976年成立了内蒙古植物志编写组，1981年扩大为内蒙古植物志编辑委员会。在建立了编写班子之后，编委们和全体作者们立即投入了紧张的组织和编写等工作，全书八卷以相当高的速度从1977年到1985年先后完成并出版，共收载内蒙古维管束植物2167种，图版有1036幅之多。这部图文并茂、内容丰富的著作，正如其序言作者，已故世的我国著名植物分类学家俞德浚教授指出的，为合理开发、利用边疆植物资源，发展农、林、牧业生产，提供了基础科学资料，同时，对植物学教学和亚洲大陆植物区系的研究具有十分重要的意义。在1979年，内蒙古自治区行政区划的范围发生变动，较前扩大。内蒙古植物志编委会针对这一情况很快做出进行《内蒙古植物志》第二版编写工作的决定。和第一版一样，第二版的编写工作仍以较高的速度进行，从1986年起到1994年的八年中，全书五卷先后完成并出版，收载了内蒙古自治区现在范围的维管束植物共2442种，图版增加到1225幅。在第二版中，对全部植物种类都引证了原始文献和有关的少量重要文献和异名，这对本区和其他省、区的研究者提供了重要信息，有利于内蒙古植物志以后再版的编写和内蒙古植物区系的进一步研究。这样，新的一版在质量上和种类的数量上均比第一版有明显提高。在较短的十七年中，一种植物志竟编写出两版之多，这是很罕见的情况。内蒙古的同行们对事业的高度认真负责态度，对编写工作精益求精的钻研精神，以及整个编写工作的跃进速度，都给我留下了极为深刻的印象，我谨在此向他们表示由衷的钦佩和敬意。

我们看到，近二十年来，与大量地区植物志出版的同时，在我国还出版了《中国植物志》70余卷、册之多，因此，这一时期出现了我国编写植物志的一个空前高潮。在我国植物分类学研究历史还不足八十年的较短时间中，能从无到有，做出如此众多的成果，实令人欢欣鼓舞。近年问世的大量志书为开发、利用我国丰富的植物资源和为研究我国植物区系等方面都提供了极为宝贵的基础资料，对我国的经济建设和植物学的进一步发展必将产生深远的、积极的重要影响。

由于我国近代自然科学的研究历史较短，因此有必要了解一下世界的情况。从全世界看，

在编写植物志书方面最先进的地区当属欧洲。据英国 Reading 大学 V. H. Heywood 教授(1978)所言，在十七世纪，M. J. Quer 已编出巨著《西班牙植物志 Flora Espanola》，以后，到了十八世纪，林奈的《植物种志 Species Plantarum》和欧洲其他国家的植物志陆续出版。欧洲编写植物志的最盛时期在十九世纪，在这一世纪中，欧洲各国出版的植物志有数百种之多。我在 1991 年 6 月得到一次机会访问了著名的英国 Kew 皇家植物园的标本馆，在其图书馆(可能是世界上收藏植物分类学著作最全的图书馆)中，我看到了欧洲的大量植物志书籍，其编写格式多种多样，有大部头百科全书式的，有袖珍手册式的，描述内容或繁或简，插图数量有多有寡，或为黑白线条图，或为彩色图，形式五彩缤纷，洋洋大观。看到这千余种在近四个世纪中由千余位欧洲植物分类学者辛勤编写的志书，令我惊叹不已，同时也使我看到在我们的工作和欧洲志书之间存在有不小的差距。写到这里，我回忆起 1963 年在北京召开的一次《中国植物志》编委会的扩大会议上俞德浚教授的重要发言，俞教授提出了编好《中国植物志》的四项指标：(一) 种类齐全，(二) 鉴定正确，(三) 描述正确，(四) 检索表好用。出席那次会议的我国植物分类学界的第一代全部教授和第二代的多数教授都对俞教授的发言表示赞许。在植物志的编写工作方面，要牵涉到许多问题，譬如，标本采集的质量和数量问题，属、种的划分问题等等，不过，上述四个问题的确是编好《中国植物志》以及地区植物志的重要关键问题。我想，近几十年出版的《欧洲植物志 Flora Europaea》，《苏联植物志 Flora USSR》等欧洲的著作，大概都达到了或基本上达到了这些标准的要求。回头来看我国的情况，根据我过去搞过的一些科、属的经验，要达到上述标准，殊非易事。其原因不少，我想，这主要是因为我国的生物学调查采集 (exploration) 阶段至今尚未完成的缘故，我国幅员辽阔，虽然百余年来，不少地区得到调查，但是还有不少空白地区尚待调查、研究。这种情况就直接影响到“种类齐全”这一指标。其次，不少模式标本收藏在国外诸多标本馆中，难于查阅，这常会对实现“正确鉴定”这一指标造成困难。除了上述二点之外，可能还有文献收集、标本借阅等其他方面的不少困难，这些都会对志书编写工作的开展和质量产生或大或小的影响。所以，为了赶上编写志书的国际水平，为了编写出为生产、科研、教学等方面便于利用的、多种多样的、高水平的植物志书籍，我们还要继续做出不懈的努力。

王文采

中国科学院院士，植物研究所研究员

1994 年 2 月 24 日

PREFACE TO THE SECOND EDITION

Modern Plant taxonomic studies in China were started only at the beginning of this century. During the thirty-odd years till the founding of New China, emphasis was mainly laid on the setting up of research institutions, specimens collecting, and researches on some specific plant families and genera and so forth. Almost nothing was done as far as the compiling of regional floras is concerned. We may say that this period was the initial stage of preparation for modern plant taxonomic studies in China. From the mid-1950s to the early 1960s after the founding of New China, regional floras such as Illustrated *Woody Flora of Northeast China*, *Flora of Guangzhou*, *Flora of the Shaanxi-Gansu-Ningxia Basin*, *Manual of Seed Plants of Southen Jiansu Province*, *Keys to the plants of Northeast China*, *Flora of Beijing*, and *Flora of Hainan* (in two volumes) were published successively in the country, which raised the curtain on the compiling of regional floras in China. The "Cultural Revolution" broke out in 1966 and almost all the scientific researches were brought to a standstill. But during the period from 1969 to 1970, there was a great upsurge of a nationwide exploration of Chinese medicinal herbs. A tremendous quantity of specimens of medicinal herbs needed to be identified and thus helped to promote the plant taxonomic researches. At the later stage of the "Cultural Revolution", when the exploration of medicinal plants was not fully completed, another swift upsurge for the compiling of regional floras was on the rise, which has been continued till today with no sign of decline. Over the past twenty years, most of the provinces and the autonomous regions have published their own floras, keys or catalogues, among which *Flora of Inner Mongolia* (*Flora Intramongolica*) is considered as an outstanding work.

In 1976, an editorial team of the Flora of Inner Mongolia was set up, and it was enlarged as the Inner Mongolia Flora Editorial Commission in 1981. As soon as the compiling organization was established, all the commission members and authors immediately involved themselves in the organizational and compiling work. Starting from 1977 to 1985, the eight volumes of the Flora which has recorded 2167 species of vascular plants found in Inner Mongolia and are furnished with as many as 1036 plates of line drawings, were completed and published one after another at a rather high speed. This work of substantial content and abundant in illustrations, as the late prof. Yu De-jun, the preface author of the first edition and a well-known taxonomist of the country, pointed out, provides essential scientific information for rational exploitation and utilization of the plant resources in the border areas as well as for the production of agriculture, forestry and animal husbandry; meanwhile, it also has very important significance in the teaching of botany and in the study of the flora of Asia. With the expansion of the administrative divisions of the Inner Mongolia Autonomous Region in 1979, the editorial commission came to a prompt decision to compile the second edition of the work in accordance with the boundary alterations. As the first edition, the

second edition was also finalized at full speed. During the eight years from 1986 to 1994, the five volumes of the Flora were completed and published in succession. The Flora has recorded 2442 species of vascular plants in the Inner Mongolia Autonomous Region and the number of plates has been increased to as many as 1225. The second edition is noted for its references to the original literature, and, in some cases, to the important relevant literature as well as to the synonyms for all the plant species recorded, which would provide the researchers of the region and other provinces and autonomous regions with important information, help to compile new editions in future, and promote the further study of the flora in Inner Mongolia. Compared with the first edition, the second edition has obvious improvements in quality and in the quantity of species recorded. It is really seldom seen that two editions of a flora can be accomplished within a short period of seventeen years. I am deeply impressed by the conscientious attitude of my colleagues in Inner Mongolia toward the cause, their professional endeavour for the best, and the leaping speed of the whole compiling work.

As we have seen, in the recent twenty years a large number of regional floras have been published, and at the meantime, some seventy volumes or parts of *Flora of the People's Republic of China* (*Flora Reipublicae Popularis Sinicae*) have also been published. Therefore, this period should be considered as an unprecedented high tide in the compiling of flora publications. In China we have a rather short history of modern plant taxonomic studies for less than eighty years. We are really elated that we, started from nothing, have made so many achievements during such a short period of time. The large amount of regional floras published in recent years, have provided us with valuable essential material for the exploitation and utilization of the rich plant resources and for the study of the flora in the country, which will produce far-reaching and positive impact on the economic construction and the further development of botanic science of our country.

Because we have a short history of modern natural sciences studies in China, so it is necessary for us to know the developments in the world. Undoubtedly, Europe is taken as the most advanced region of the world for its flora publications. According to Prof. V. H. Heywood (1978) of the University of Reading, England, M. J. Quer compiled his monumental work *Flora Espanola* in the 17th century, and then in the 18th century, Carl von Linne's *Species Plantarum* and other European flora works were published successively. The most prosperous period for flora publications in Europe was the 19th century, during which several hundred floras were published in European countries. In June 1991, I had an opportunity to visit the herbarium of the world-famous Royal Botanical Gardens, Kew. Its library perhaps possesses the fullest collection of plant taxonomic works of the world. There I was shown many colourful and splendid European flora publications; their styles vary from encyclopaedic form to handbook format; their descriptions are also in varying degrees in terms of language style and details; some are furnished with colourful plates, while others are furnished with black-white line drawings. In front of these one-thousand-odd flora publications compiled by one-thousand-odd assiduous European plant taxonomists during the past four centuries,