

## HISTORY OF THE *FLORA OF CHINA*

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### INTRODUCTIONS: THE BEGINNING

The organization of the *Flora of China*, a joint effort involving Chinese and foreign botanists, forms part of the story of China's re-opening to the world in the 1970s after nearly 30 years of comparative isolation. Botanical studies by Chinese scientists had begun in the 1920s, were largely interrupted by World War II, and resumed in the late 1940s. Since the 1890s, however, China had been struggling to find its footing and full independence in the modern world, with decades of struggle ensuing. After 1949, the country was essentially closed for more than two decades to exchanges of any kind with outsiders. In botany, there was limited interaction with the former Soviet Union between 1949 and 1959. During this closed period, a major effort was mounted to inventory all of China's plants. These efforts extended to regions such as Xinjiang, Xizang, and Nei Mongol, from which relatively few specimens had been collected earlier (Tang, 1981).

As they were accumulating hundreds of thousands of new plant specimens, Chinese botanists began to believe that it would be feasible for the first time to prepare a comprehensive Flora of their country. In 1959, in response to the wishes of some of these botanists, the Chinese government appointed a committee to prepare a national Flora. The committee was centered in the Institute of Botany, Chinese Academy of Sciences, Beijing, and with additional centers at the South China Institute of Botany, Guangzhou, and ultimately at the Kunming Institute of Botany and the Jiangsu Institute of Botany, Nanjing, as well.

The first volume of the national Flora, *Flora Reipublicae Popularis Sinicae* (FRPS), dealing with some groups of pteridophytes, was published in 1959. It was edited by Ching Ren-chang (秦仁昌 Qin Renchang; Institute of Botany, Chinese Academy of Sciences, Beijing), Secretary General of the Flora and an internationally recognized student of this group, the scientist to whom volume 2–3 of the *Flora of China* is dedicated. Subsequent volumes of FRPS, which occupied the efforts of virtually all systematic botanists in China during these years, appeared over the next 45 years. In addition to the first volume, the treatments of *Pedicularis* and part of the Cyperaceae were published before the Cultural Revolution. Their publication was followed by almost a ten-year gap before the next volume of the Flora was published, but subsequent volumes appeared regularly over the next three decades until the work was completed in 2004. Ultimately, this Flora, the first comprehensive account of all the vascular plants of the country, was completed in 80 volumes, organized into 126 parts (Ma & Clemants, 2006). During most of the course of preparation of FRPS, however, the limited access to literature and historical specimens gathered over the preceding two centuries by foreigners and sent abroad to their home institutions created many practical difficulties for the Chinese authors of the new work.

In China, as the intensity of the Cultural Revolution, especially strong during the period 1966–1969, began to wane by the early 1970s, Chinese and American leaders in many fields began to look for ways to resume ties between the two countries, ties that had been virtually non-existent since 1949. In 1971, although Chinese politics remained tumultuous, Arthur Galston of Yale University and Ethan Signer of the Massachusetts Institute of Technology were invited to visit China for three weeks; Galston returned with his family for a longer stay on a commune in the summer of 1972. Meanwhile, U.S. President Richard M. Nixon famously visited China in February 1972, opening the way for subsequent exchanges of many kinds.

During the following years, the Committee on Scholarly Communication with the People's Republic of China (CSCPRC) was able to sponsor visits to China by small delegations of American scientists. In 1975, Anne Keatley of the CSCPRC contacted Peter Raven, then president of the Botanical Society of America (BSA), inviting proposals for interchange with scientists in the PRC and specifically to contact his counterpart Wang Fuxiong (王伏雄 Wang Fu-Hsiung), the president of the Botanical Society of China, to investigate what kind of botanical exchanges might be possible. Meanwhile, Bruce Bartholomew, then at the University of California Botanical Garden at Berkeley and subsequently at the California Academy of Sciences in San Francisco, was able to make a short private visit to China in November 1975. He returned with the desire to organize a visit by a delegation of American botanists to China. Earlier the same month, Raven had enlisted Galston's help, appointing him chair of a BSA committee charged to develop a program of such exchanges, with Bartholomew subsequently joining the committee.

Ultimately, the negotiations for a group of American botanists to visit China were successful. A ten-person U.S. delegation, headed by Lawrence Bogorad of Harvard University and with Bartholomew as the coordinator, was approved in 1977. In addition to Bogorad and Bartholomew, the group's members included Thomas S. Elias (Cary Arboretum of the New York Botanical Garden), Richard H. Hageman (University of Illinois), Richard Howard (The Arnold Arboretum of Harvard University), J. William Schopf (University of California at Los Angeles), Jane Shen-Miller (a Chinese botanist, returning to the mainland for the first time since her childhood; Metabolic Biology Program, National Science Foundation), Richard C. Starr (The University of Texas at Austin), William Tai (戴威廉; Department of Botany and Plant Pathology at Michigan State University), and Anitra Thorhaug (Florida International University). The delegation visited academic centers and botanical institutes in China from May 20 to June 18, 1978 (Shen-Miller, 1979; Thorhaug (ed.), 1979a; Thorhaug, 1979b). During their trip, which took the group to nine different cities, they were able to visit most of the major herbaria and observe progress on FRPS as well as the production of many regional floras (Bartholomew et al., 1979). Like Shen-Miller, William Tai returned to China for the first time since his family left in the 1940s. He devoted most of his energy for the rest of his life to the pursuit of opportunities for and facilitation of collaboration between Chinese and American botanists. Funding for the visit was provided by the U.S. National Science Foundation.

The following year the American botanical community made plans to welcome a return visit of Chinese botanists, most of whom had met their American counterparts during the 1978 visit to China. Raven invited Tai, who had been a postdoctoral student with Raven at Stanford University from 1967 to 1969, to organize the itinerary for the visit, which was once again funded by the National Science Foundation. Tai and Bartholomew organized the visa applications and visits by the Chinese delegates to various institutions throughout the U.S., where the delegation was generously hosted during the course of their visit.

The Chinese delegation, headed by Yin Hung-chang (殷宏章 Yin Hongzhang), director of the Shanghai Institute of Plant Physiology, visited North America between May 1 and June 2, 1979. It included both Wu Zhengyi (吴征镒 Wu Cheng-yih), director of the Kunming Institute of Botany, and Yü Te-tsun (俞德浚 Yu Dejun), deputy director of the Institute of Botany, Chinese Academy of Sciences, Beijing. Additional delegates included Fang Shengding (方圣鼎 Fan Sheng-ting) of the Shanghai Institute of Materia Medica, Li Hsin-hsueh (李星学 Li Xingxue) of the Nanjing Geology Institute, Sheng Chenggui (盛诚桂 Sheng Cheng-kui) of the Nanjing Zhongshan Botanical Garden, Su Fenglin (苏凤林) of the Foreign Affairs Bureau, Xu Ren (徐仁 Hsu Jen) of the Botany Institute of Beijing, and delegation interpreter Qiu Bingjun (邱秉钧 Chiu Ping-chun) (Tai & Raven, 1977). In addition, Tang Peisong (汤佩松 Tang Pei-sung), who was director of the Institute of Botany, Chinese Academy of Sciences, Beijing, visited from June 1 to July 10. Tang was a strong promoter of exchange between botanists in China and those in the U.S. for the rest of his life.

The seeds for what subsequently grew to become the *Flora of China* were sown at a joint meeting held in the Alumni House at the University of California, Berkeley, on June 1, 1979. This Colloquium on Increasing Communication, Cooperation, and Exchanges in Botany between the United States and the People's Republic of China was organized by Bartholomew at the suggestion of Raven in order to try to identify how future botanical collaboration could be encouraged. At that meeting, satisfaction was expressed with the exchanges that had already taken place, with joint proposals made to expand the level of exchange in all fields of botany, to facilitate the exchange of people and scientific materials, and to organize joint projects of various kinds. Significantly, however, Yü Te-tsun and Wu Zhengyi presented at the meeting the desirability of translating FRPS into English and bringing it up to date. In the translation, the errors and omissions in FRPS that had been caused by China's recent isolation from the world scientific community would be corrected. Later that summer, August 20, 1979, Yü Te-tsun wrote Raven thanking the American botanists for hosting the Chinese delegation and for the publications they had been given. He said they all had been very busy, but that the various proposals made at the Berkeley meeting were being actively and enthusiastically considered.

American botanists at that time were very eager to undertake additional field work in China. Consequently, a few days after the joint meeting, Raven appointed Bruce Bartholomew, Thomas S. Elias, and Stephen A. Spongberg (Harvard University) to organize a proposal for a joint botanical and horticultural expedition to the PRC. Raven called Bartholomew's attention to his former student David E. Boufford, then at the Carnegie Museum of Natural History in Pittsburgh, and suggested that he be involved in the field trip also. The group was completed with the addition of Theodore Dudley of the U.S. National Arboretum. The collecting trip was proposed for Shennongjia as well as the *Metasequoia* area, both in Hubei Province, and took place from August to October 1980, with Bartholomew the leader of the American team (Bartholomew et al., 1983a, 1983b). Before the trip began, Elias dislocated his shoulder in a jogging accident

and was replaced by James Luteyn, who was also from the New York Botanical Garden. Most of the funding for foreign participation was provided by the Committee for Research and Exploration of the National Geographic Society, with a smaller grant from the American Association of Botanical Gardens and Arboreta. The trip brought Chinese and American botanists closer together but proved to be very expensive, that expense making it difficult to organize additional joint trips over the next few years. During the same years, however, individual field trips, both official and unofficial, began to take place with increasing frequency, the arrangements becoming simpler as the years passed.

In accordance with the call for more meetings and increased contact, Bartholomew proposed in late 1979 a symposium on the developing Chinese-American relationships in botany, including a review of the observations of the American botanists on the 1978 delegation. This symposium was held in the summer of 1979 at the annual meeting of the American Institute for Biological Sciences in Stillwater, Oklahoma; it helped to increase American interest in interchange with the PRC.

In the summer of 1980, Raven, along with Tai, visited China. For Raven he was returning to the country for the first time since he left Shanghai as a one-year-old baby in June 1937! Raven and Tai held discussions intended to promote exchange at a number of Chinese institutions, emphasizing the further development of cooperative programs, and seeking permission for additional joint field trips. By the autumn of that year, the American group was considering Yü Te-tsun and Wu Zhengyi's earlier proposal to translate FRPS and possibly other botanical works into English. On November 1, 1980, Raven stated to Bartholomew that he would continue to try to organize a committee for the translation of FRPS, and that he would seek funding as well as approval by the Chinese Academy of Sciences.

At that point, the program was viewed as one that would result in a rapid, literal translation of FRPS, with that translation then to be revised to take into account new information or corrections that were missed or had become available in the years since the original publications of FRPS volumes. To promote that aim as well as to investigate the possibilities for field work, Raven made numerous trips to China over the next two decades, first accompanied by William Tai and then later by Zhu Guanghua (朱光华; Missouri Botanical Garden). As various aspects of the Flora project developed, they were discussed with the leadership of FRPS and other Chinese botanists and officials, especially from the Chinese Academy of Sciences, so that the problems could be solved easily during the course of the formal meetings.

Although proposals for additional joint expeditions continued to be made to the Chinese Academy of Sciences from 1980 onward, it was not until 1984 that comprehensive programs for field studies began to be implemented with a joint trip to Diancang Shan (苍山 Cang Shan) in western Yunnan (Boufford & Bartholomew, 1986) and another to northeastern Guizhou in 1986 (Ying et al., 1991). By the end of those trips, the American botanists had concluded that it would be best to abandon the pursuit of major joint expeditions and relegate the pursuit of field opportunities in both directions to individuals and institutions. By 1997, major projects in the Gaoligong Shan region (led in the U.S. by the California Academy of Sciences) and the Hengduan Mountains (led in the U.S. by Harvard University) had emerged as realities, but as major inter-institutional projects, much better in conception than the "Joint Field Trips" that were considered the main goal of negotiations earlier. A spirit of joint discovery and publication had developed between Chinese and foreign botanists as trust and understanding grew.

## A NEW FLORA OF CHINA

Meanwhile, in the early 1980s, most Chinese and American botanists continued to consider that the *Flora of China* would be a corrected translation of FRPS. Following this line of reasoning, Raven attempted in 1980–1982 to find an appropriate and willing publisher for such a huge work—comprising 80 volumes, published as 126 individual books, and taking into account that translations into English from Chinese take roughly 50 percent more space than the original! American botanists interested in taking part in the project met in St. Louis in February 1981 and considered how they might be able to move forward. On July 27, 1981, Raven wrote Bartholomew about a good set of discussions he had had on a recent trip to Beijing and stated that the "flora translation project" was back on line. Rough translations were to be prepared in China and then come to editorial centers for editing, processing, and preparation of camera-ready copy. It did not prove to be possible, however, to find a publisher willing to deal with the logistics of publishing such a massive work.

Consequently, in an effort to solve this problem, Raven suggested in 1982 that the *Flora of China* be published in a format similar to *Flora Europaea*, with short diagnoses and no illustrations. The illustrations were eliminated at this point from the revision in an effort to reduce the size of the overall work, and with the thought that they were already available in FRPS. After preliminary discussions of the feasibility of adopting such a format, Raven wrote Tang Peisong on June 23, 1982, with copies to a number of other Chinese and American botanists, that the formation of a joint committee for the translation of FRPS and its organization into the abbreviated format be appointed. He reported that University Microfilms (IMI) had just withdrawn from its consideration of publishing the project because of its size, and called for further consideration of the role of Science Press. On July 12, 1982, Yü Te-tsun, chairman of the FRPS editorial committee, wrote Raven that he agreed with the idea of appointing the joint editorial committee, but pointed out that, in view of the 40 volumes still needed to complete FRPS, the new work might have to move a bit slowly for the time being. Yü Te-tsun was, however, looking forward to a formal meeting of a joint committee after the end of that year. In 1983, Raven re-emphasized the *Flora Europaea* type concept to him, with the reasoning that it would provide a good format for revision. He emphasized the high desirability of providing a framework in which Chinese botanists would have the chance to revise their concepts while discussing their ideas with foreigners, something that they were interested in doing. It had become clear that one of the reasons the translation project was not moving forward was that it would have been a mechanical process that would not allow much opportunity for revision or meaningful participation by Chinese botanists. It was, however, seen as a good idea to move on with the preparation of the new joint work and to initiate the cooperation implied by undertaking such an effort. After Yü Te-tsun indicated that he hoped that translations of some parts of FRPS could be completed in 1982, Raven again suggested to Tang Peisong that a joint committee be established for that purpose.

On September 23–25, 1982, the Missouri Botanical Garden held a systematics symposium entitled “Biological Relationships between Temperate Eastern Asia and North America,” intended to deepen relationships and mutual understanding. A number of Chinese botanists attended the symposium, including Hong Deyuan (洪德元), who from that point onward worked closely with the *Flora of China* project and was appointed as vice co-chair of the Joint Editorial Committee in August 2001.

Gu Hongya (顾红雅) enrolled at Washington University in May 1983, the first Chinese graduate student in botany there, and became associated later with the new effort. Now assistant dean of Life Sciences at Peking University, she contributed a great deal to the organization and progress of the *Flora of China* project in its early years.

Boufford, who had graduated from Washington University in 1978, encouraged work on the *Flora of China* at the Carnegie Museum in Pittsburgh, but he ultimately moved to the Arnold Arboretum in 1981, becoming assistant director for collections at the Harvard University Herbaria in 1986 and senior research scientist at the Arnold Arboretum in 2006. Boufford's new position gave him improved opportunities to pursue field work and joint projects in China. He, together with Stephen A. Spongberg, with funding from the National Science Foundation, organized two trips for a delegation of Chinese botanists in North America in 1982, at a time when especially the Chinese botanists considered that all field work should take place on a reciprocal basis. Boufford also established what was then termed a “translation center” at Harvard. Visits in both directions were becoming more frequent, as were longer-term stays, and mutual understanding was increasing steadily. For example, the exchange of specimens and literature had become routine.

Pending formal Chinese approval of the *Flora of China* project, the American botanists continued to seek a publisher for the condensed edition, hoping that permission to proceed with the new project might be forthcoming soon. Negotiations continued with Oxford University Press, Hong Kong, and with Science Press, the publishing arm of the Chinese Academy of Sciences, which began to seem the more desirable alternative. Through these years American botanists thought that the Arnold Arboretum might become the lead institution for the *Flora of China* project because of its long history of involvement in China and with Asian botany generally.

On July 14, 1986, Yü Te-tsun, head of FRPS committee, died, having done a great deal to advance Sino-American botanical cooperation. He had always worked hard and consistently to encourage the development of botanical interchanges. After Yü Te-tsun's death, Wu Zhengyi of the Kunming Institute of Botany became head of the FRPS editorial committee. With his colleagues on the editorial committee, he thus became the person ultimately in charge of the Chinese decision about the joint project, provided that permission from the Chinese Academy of Sciences was forthcoming.



*Peter H. Raven (seated, left) and Wu Zhengyi (seated, right) sign the 1988 agreement to produce the Flora of China. Pictured standing are William Tai, David E. Boufford, Chen Xinqi, Huang Chengjiu, and Chen Shouliang.*

The FRPS editorial committee continued to study the American proposal for a joint project with an abbreviated format. Finally, on July 27, 1987, at the XIV International Botanical Congress in Berlin, Wu Zhengyi informed Raven that the project had been approved and that they should appoint and plan for a meeting of the joint committee. Discussions continued in the U.S. about this project, emphasizing that it should be a revision of FRPS rather than simply a corrected translation. This strategy encouraged foreign botanists to become much more deeply involved in the study of Chinese plants, which proved advantageous both to Chinese and to foreign scientists.

The original founding meeting for the *Flora of China* project was held in St. Louis on October 1–9, 1988. The members who attended were Wu Zhengyi (co-chair), Kunming Institute of Botany, with Li Xiwen (李锡文 Li Hsi-wen), from the same institute; Chen Xinqi (陈心启 Chen Sing-chi), Cui Hongbin (崔鸿宾 Tsui Hung-pin), and Dai Lunkai (戴伦凯), Beijing Institute of Botany; Chen Shouliang (陈守良), Nanjing Zhongshan Botanical Garden; Huang Chengjiu (黄成就 Huang Cheng-chiu, Huang Ching-chieu), South China Institute of Botany; Peter H. Raven (co-chair), Missouri Botanical Garden, with William Tai and Nancy R. Morin, also from Missouri, the former who joined the staff earlier that year; Bruce Bartholomew, California Academy of Sciences; and David E. Boufford, Harvard University Herbaria. Secretariat was Chen Jiarui (陈家瑞 Chen Chia-jui) and Gu Hongya, Beijing. Four observers were also in attendance: Bryan E. Dutton, University of Maryland; Li Mingde (李明德), Chinese Embassy in the United States; Ching-I Peng (彭镜毅), Academia Sinica, Taipei; and Su Fenglin, Bureau of International Cooperation, Chinese Academy of Sciences.

The Chinese and American participants in this meeting reached an agreement to establish a joint committee consisting of seven Chinese botanists and five Americans, essentially those who participated in the editorial meeting in St. Louis,

to manage the *Flora of China*. It was agreed that the English-language volumes would be prepared in a format similar to that of *Flora Europaea*, and that it would be published in 25 volumes over a period of what they then hoped might be 15 years. The numbering and contents of the individual volumes were determined in advance, and they were to be published in random numerical order, whenever they were completed. The living Chinese authors of the treatments in FRPS were to be preferred as authors and they would produce the first draft of the English revision. Beginning with this first draft, each treatment would be co-authored by a botanist living outside of China. It was also agreed to include Hong Kong and Taiwan in the *Flora*. Appointed co-directors Dai Lunkai of Beijing and William Tai would actively direct the operation of the project at that point, setting rules for procedure and implementing them. The formal agreement was signed on October 7 under the line of dawn redwoods (*Metasequoia glyptostroboides*) in front of the John S. Lehmann Building at Missouri Botanical Garden.

The first formal meeting of the newly-appointed Joint Editorial Committee was held in Guangzhou on August 28–30, 1989. It had been planned for Hong Kong, but that venue proved impossible in view of the diplomatic repercussions of the Tiananmen Square incident, which had taken place just three months earlier. Meeting organizers included Paul P. H. But (毕培曦) of the Chinese University of Hong Kong, who was invited to serve on the Joint Editorial Committee (see Appendix 1). The Guangzhou meeting proved highly productive, firmly settling on the principle of joint authorship. If any disagreements could not be resolved in forming a final draft after the Chinese and foreign coauthors had an opportunity to discuss the treatment, the Chinese views were to be used as the basis for the primary treatment, with the views of the foreign authors to be spelled out within the *Flora* or in a few cases, published in a separate article. Volume 17 was being prepared as a test case, with the problems that were encountered there discussed and used to develop further principles. It was selected because it was the easiest of the projected volumes for which to obtain translations of the treatments in FRPS. It was agreed from that meeting onward that the information resulting from the project should be introduced into databases. Many problems of access to specimens and information were discussed. Raven's suggestion that the Chinese authors be listed first, separated by a semicolon from the foreign authors was accepted. The Chinese members of the Joint Editorial Committee were to select the Chinese authors and the non-Chinese members of the Editorial Committee were to select the foreign authors. Cui Hongbin, FRPS associate editor-in-chief, who served as a liaison between the two projects, was instrumental in organizing the contributing authors of the *Flora of China*.

The remarks made by Wu Zhengyi in opening the 1989 joint meeting in Guangzhou indicated clearly that he had come to regard the series on which we were embarking as a new *Flora of China* and not simply a corrected English version of FRPS, but rather as a new work—a second edition in a different format. Wu suggested that the group might attempt to complete the entire work in ten years, but it ultimately turned out to take twice that long once publication started. Appropriately, Wu thanked the Chinese government for their setting up new policies that made it possible for Chinese botanists to exchange their views freely with foreign and Hong Kong botanists and thus promote the development of science effectively.

## THE FIRST VOLUME

Following the first formal meetings, the joint committee began to set up guidelines, identify geographical reviewers, and devise appropriate ways for the work to flow. Draft guidelines were prepared by Bartholomew and Boufford, who presented them on October 31, 1989. Following revision at several subsequent meetings, those guidelines provided a basis for proceeding. At the same time, and while the project was being developed, funding requested by the American botanists was approved by the National Science Foundation (NSF). The first NSF grant for the *Flora of China* was received on September 15, 1989. Funding from the NSF continued uninterrupted for the next two decades, eventually amounting to a total of \$3.3 million. Those funds were of fundamental importance in making it possible to complete the whole project much more rapidly than could have been possible otherwise. The Chinese Academy of Sciences and the Chinese National Science Foundation simultaneously provided funds for the *Flora of China* project, first through the FRPS project and ultimately independently.

From March to August 1980, William Tai, who worked on Chinese-American interchange since he visited China with the American delegation in 1978, spent time as a visiting scientist at the Institute of Genetics, Academia Sinica. Returning to North America, he moved to the Department of Plant Science, University of Manitoba, in late 1981. In 1988, he moved again, to the Missouri Botanical Garden to devote full time to the coordination of the project, with the title of co-director of the *Flora of China*. Ihsan A. Al-Shehbaz joined the project at the Missouri Botanical Garden in 1990,

working with Tai on editorial matters, the logistics of which were increasingly concentrated at Missouri. Also in 1990, the Smithsonian Institution joined the Joint Editorial Committee as the fourth U.S. center, with Laurence E. Skog as the designated Smithsonian member.

The draft translation of volume 17 was received by the American members of the Joint Editorial Committee in late 1989. In the process of preparing it for publication many practical matters were resolved. By early 1990, the committee was busy selecting the next five volumes to be published and sorting out coauthors for them. Al-Shehbaz was working closely on editorial matters with Boufford and Bryan E. Dutton at Harvard plus Bartholomew and Orbélia Robinson at the California Academy of Sciences. Michael G. Gilbert, who had been working on the Flora of Ethiopia, was hired to work in the herbaria in London in 1991. His initial brief was to ensure ready access to material important for the preparation of the Flora there and in Edinburgh but he served as one of the chief coauthors until the project's completion, stepping in when no specialist was available. By then, the Missouri Botanical Garden was functioning as the main editorial center outside China, receiving input mainly from Harvard, the California Academy of Sciences, and London, and subsequently handling the final editing of all manuscripts and conveying them to Science Press as camera-ready copy. Rosemary Tanaka joined the *Flora of China* staff at Missouri, offering technical and editorial support. Because of her experience and skill as a typesetter, she would become the project's typesetter for all of the text volumes that followed volume 17, until her retirement in the spring of 2013.

With regard to word processing, the volumes were initially produced using Wordstar, then WordPerfect. After the first three volumes, Microsoft Word was adopted and subsequently used to prepare all camera-ready copy. Gilbert created the *Flora of China* style sheet using and adapting templates first developed for the Flora of Ethiopia; in addition, he developed Word macros to automate some of the editing, in particular the preparation of indexes. Macros were also used to extract nomenclatural and distributional data to populate a database—essential to the preparation of tables and indexes presented in this introduction volume.

At the editorial committee meeting at Harvard University Herbaria in October 1992, while awaiting the appearance of volume 17, the committee re-emphasized the revisionary character of the work and vowed to emphasize that principle to the extent possible in future volumes. Al-Shehbaz was organizing the renewal proposal for the National Science Foundation, with much information provided at the committee meeting.

After three years of negotiations on the matter, Oxford University Press decided not to participate in the *Flora of China* project, and so from April 1992 onward the co-publishers for the Flora were established as Science Press and the Missouri Botanical Garden. The fourth Joint Editorial Committee meeting took place in Kunming, June 29–30, 1992, when the final publication arrangements were settled. The Royal Botanic Garden, Edinburgh, joined the project, the first European editorial center on the committee, with David S. Ingram as the designated member. Support from the C.V. Starr Foundation, critically important to the overall project, had commenced. Anthony R. Brach, who would spend the next 20 years on staff, was hired as an editor in July 1993. The next joint meeting was convened September 4–5, 1993, in Nikko, Japan, at the XV International Botanical Congress, where Chou Changhung (周昌弘), director of the Institute of Botany, Academia Sinica, Taiwan, was added as a member of the Joint Editorial Committee.

Finally, in 1994, after several years of difficult editorial work while principles for the publication were being established, the first volume of the *Flora of China* (volume 17) was published. It served as the model for the subsequent volumes, and its preparation formed the basis for the discussions that led to the formation of a mutually acceptable procedure for the production of the subsequent volumes.

## **PRODUCTION CONTINUES (1995 ONWARD)**

Only a year after the first volume appeared, volume 16 was published, setting the pace for the volumes to come. Earlier, in 1994, the editorial committee had added new members Hong Deyuan and co-author coordinator Ihsan A. Al-Shehbaz. Sadly, it had lost one of its founding members, Cui Hongbin (1929–1994), to whom volume 16 was dedicated. In the spring of 1995, the Joint Editorial Committee met in Edinburgh, the seventh international meeting. Later that summer, co-director William Tai, who had played a critical role in the formation of the project, left Missouri and his post as co-director. He was succeeded by Al-Shehbaz, who would work together with original co-director Dai Lunkai for the next six years.

With production underway and a third volume published (volume 15), the project also expanded its goals. In 1996, the Joint Editorial Committee decided to prepare and publish a parallel series of illustration volumes, drawing heavily on the illustrations that already had been published in FRPS but adding suitable additional illustrations when they could be found and improving FRPS plates when possible. The publication of the illustration series allowed the nomenclature and taxonomy in the illustration volumes to correspond to those given in the text volumes. The first volume of illustrations (volume 17) appeared in 1998. Zhu Guanghua, who had come to University of Missouri–St. Louis as a graduate student (1989–1996) and had worked as editorial assistant for the *Flora of China* project, led the production of the illustration volumes as editor. Ten out of the total 24 volumes of illustrations were edited by Zhu Guanghua (volumes 4, 5, 6, 8, 9, 15, 16, 17, 18, and 24), and one (volume 14) was co-edited by him and Zhang Libing (张丽兵). Zhang Libing, hired by the project in 2006, would serve as the sole illustrations editor from 2007 onward and add about one-third of non-FRPS illustrations to the later volumes.

In 1996, Anthony R. Brach, with the help of Harvard systems administrator Noel Cross, set up the *Flora of China* website at Harvard University Herbaria, followed in 1998 by an early digital copy of the Flora, “Flora Accounts Online,” for browsing and searching the volumes. On the website itself, early drafts and finished treatments could now be accessible online, as Microsoft Word documents converted into HTML (later the finished treatments as PDFs), facilitating research, discussion, and improvements throughout the project and beyond (Brach & Song, 2006; Brach & Boufford, 2011). In 2003, Song Hong (宋宏) of Missouri Botanical Garden developed ActKey, a web-based program for accessing interactive identification keys (Brach & Song, 2005), and soon after, in 2004, he created eFloras.org as a web interface to browse and search a databased copy of the volumes. In due course, all of the text volumes would become available on eFloras, allowing users to search or browse the floristic treatments and link to important resources, including the series illustrations, as well as inviting updates from the community.

In 1997, the Royal Botanic Gardens, Kew, joined as an additional editorial center, and the Muséum national d’Histoire naturelle, Paris, soon followed suit.

Also, as the project expanded online, *Flora of China* staff at the Missouri Botanical Garden expanded. Candy McCandliss, who had lived in China as a child, joined in 1996 to update the botanical database, TROPICOS, with data published in the Flora, a job she would continue to do for all of the remaining text volumes. In 1997, A. Michele Funston was hired as coordinator of the *Flora of China* Checklist, an online inventory of the plants of China, which had been previously managed by Tatyana Shulkina (1992–1993) and James L. Zarucchi (1993–1996). Adding names from historic and current literature, the coordinator verified nomenclatural and bibliographic data and assisted users of the Checklist, which served as both a reference for contributors to the project and a resource for the scientific community and general public.

In order to organize the work on ferns and lycophytes (pteridophytes), constituting volumes 2 and 3 and ultimately to be published as one book, a joint committee appointed by the Editorial Committee was convened at the Lushan Botanical Garden in May 2001. Funston, one of the organizers, continued to supervise the early stages of the *Flora of China* pteridophyte volumes, selecting the non-Chinese authors, coordinating the preparation of early drafts, and editing the treatments. Discussion around the evolving classification of these groups would follow over a number of years before the final text volume was scheduled for publication.

In August 2001, a renewed agreement of the Joint Editorial Committee was signed in Kunming by Raven and Chen Yiyu (陈宜瑜), then vice president of the Chinese Academy of Sciences. Hong Deyuan was appointed as vice co-chair of the Joint Editorial Committee just before the event. Early on (2001–2003), Hong Deyuan’s responsibility faced much difficulty, largely with obtaining funding for Chinese authors and seeing that drafts were submitted. Eventually, persistence was rewarded with financial support for the *Flora of China* from the National Natural Science Foundation of China, Chinese Academy of Sciences, and China Ministry of Science and Technology. This funding helped greatly in the submission of drafts needed to complete the series.

After the publication of volume 8 in June 2001, two new co-directors assumed staff leadership of the project. Yang Qiner (杨亲二) of the Institute of Botany, Chinese Academy of Sciences, Beijing, succeeded Dai Lunkai, who had served as co-director for the first 11 text and illustration volumes. Zhu Guanghua succeeded Al-Shehbaz, who shifted to full-time research on Brassicaceae after managing the production of nine text and illustration volumes. Zhu Guanghua led the project and continued as illustration editor until his untimely death on November 2, 2005.



Nicholas J. Turland, who had joined the staff as editorial assistant in 1997 following work on the Linnean Plant Name Typification Project at The Natural History Museum, London, succeeded Zhu Guanghua as co-director, and Zhang Libing, returning to Missouri after posts in the Department of Biology at Colorado State University and in the Department of Integrative Biology at Brigham Young University, joined the project as illustration editor in 2006. A year earlier, Gong Xiaolin (宫晓林) became the new Committee Secretary at the Institute of Botany, Beijing, assisting with manuscript submissions, communications with the Chinese authors, and additional project operations until the project's completion. Between 2006 and 2013, the final text and illustration volumes, 53% of the series, were produced, with two to four books being published each year. In 2007, after the departure of A. Michele Funston, Zhang Libing, whose work on pteridophytes included several contributions to FRPS, became the coordinator of the pteridophyte volume. Lisa J. Pepper joined the project in 2007 as editorial assistant, helping to speed up publication and further improve the quality of the text volumes. David A. Simpson of Royal Botanic Gardens, Kew, was the final member to join the Joint Editorial Committee.

At the request of Peter Raven, Zhang Libing started in April 2009 to compile a contemporary list of families and genera of pteridophytes to be recognized in the *Flora of China*. Early contributors to this list were Alan R. Smith, of University of California, Berkeley, and Carl Rothfels, a student in Kathleen Pryer's lab at Duke University. A draft classification was presented by Zhang Libing on May 19, 2010, at the Joint Editorial Committee meeting in Edinburgh. In February 2011, Christenhusz et al. published a linear sequence of extant families and genera of lycophytes and ferns in which the relevant Chinese families and genera were mostly consistent with those in the *Flora of China* draft classification. A decision was finally made to adopt Christenhusz et al.'s classification after a number of exchanges between Hong Deyuan and Raven and a letter from Hong Deyuan to the Chinese authors on November 25, 2011.

In December 2012, Turland left Missouri for a position at Botanischer Garten und Botanisches Museum Berlin-Dahlem. Zhang Libing, still serving as illustration editor, was appointed co-director. In less than a year, the remaining four volumes—the pteridophyte volumes (2–3), the Asteraceae and pteridophyte illustration volumes (20–21 and 2–3), and the introduction volume (1)—were completed and published.

Largely on the basis of his efforts with the *Flora of China* project, Raven received the Award for International Scientific Cooperation from the Chinese Academy of Sciences in 2009 and the Friendship Award from the Government of China in September 2010. By that time, the completion of the *Flora of China* was in sight. Three years later, just 25 years after the original founding meeting of the joint committee and 20 years after the publication of the first volume, it was realized.

## THE FUTURE

And so, 35 years after preparation of the *Flora of China* as a joint project was first suggested by Yü Te-tsun and Wu Zhengyi, the work has been completed in hard copy. There are 25 text volumes, including this introduction volume, and 24 companion illustration volumes, a total of 49 volumes published in 45 books. The text volumes were published between 1994 and 2013, with *Illustrations*, the first volume of which was published in 1998, also completed in the summer of 2013. Most of the original illustrations for FRPS are preserved in the Institute of Botany, Chinese Academy of Sciences, Beijing. The archives of the *Flora of China* project are housed at the Missouri Botanical Garden.

All of the published treatments and plates are freely available online. Currently, PDFs of each text volume are on the *Flora of China* website (<http://flora.huh.harvard.edu/china/>). On the online database version of the Flora on eFloras, users can browse or search the floristic treatments by volume, taxon, and even province, and links to companion illustrations are provided for all of the illustrated taxa. By the end of 2013, TROPICOS will be updated to reflect the data in every one of text volumes and thus harmonized with the 31,362 names (and their synonyms) treated in the Flora. Records for all of the vascular plants of China, ca. 8% of the world's total, will be up-to-date and accessible thanks to the project.

Many strategies to maintain the usefulness of the Flora online are in the works. In TROPICOS, the China-related records will continue to require curation, such as editing or annotating incorrect or redundant information (e.g., duplicate records, misapplied names, erroneous records for China); evaluating and integrating the thousands of infraspecific names from the Hu Card Index, a list of Chinese plant names compiled by Arnold Arboretum researchers in the 1950s; and adding newly described taxa. Designing new search options for the project on TROPICOS and for the online treatments (e.g., illustration-only searches) will increase functionality and access to the published data. Augmenting treatments and online

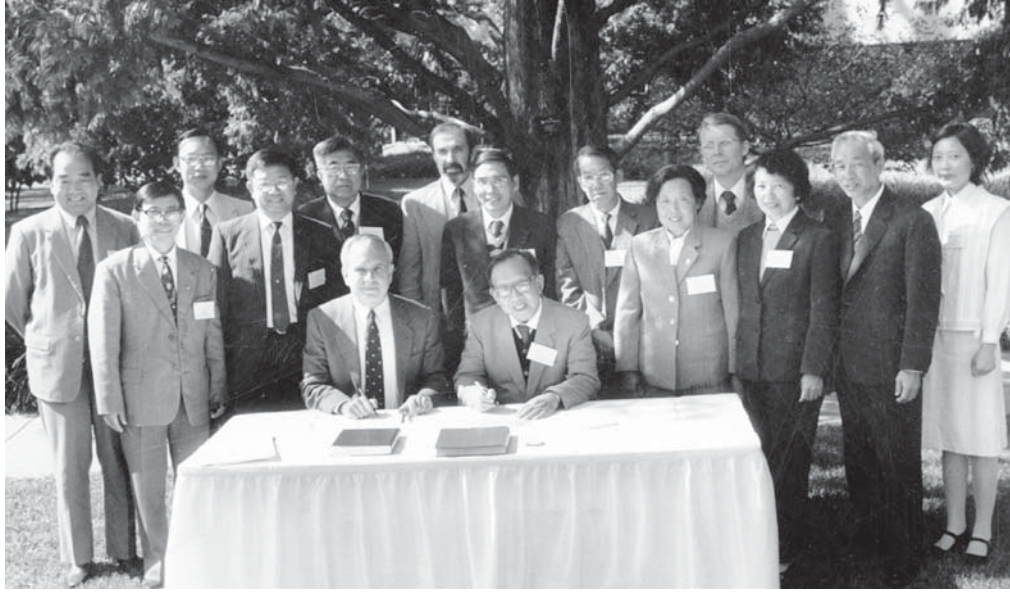
interactive keys, adding descriptions for new taxa, and translating the *Flora of China* into Chinese are just a few of the goals that will not only enhance the *Flora of China*'s value but will also strengthen the World Flora Online project, now a major effort of some of the leading plant science institutions.

We are deeply grateful for the support of the institutions that hosted the work, which involved hundreds of individual botanists, on this project, and to the U.S. National Science Foundation, the National Natural Science Foundation of China, the Chinese Academy of Sciences, the Starr Foundation, the Fondation Franklinia, the Ministry of Science and Technology of China, the Stanley Smith Horticultural Trust, and a number of other funders for their help with this major effort. The greatest prize won during the course of its preparation has undoubtedly not been the actual appearance of the volumes themselves, but rather the dozens of individual friendships and collaborative arrangements that have materially strengthened the science of botany and the development of international collaboration throughout the world. May the future be even more productive than the past!

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*Flora of China Agreement Ceremony, Friday, October 7, 1988, Missouri Botanical Garden, St. Louis, Missouri, U.S.A. Pictured here are (seated) Peter H. Raven and Wu Zhengyi (吴征镒); (standing, left to right): Su Fenglin (苏凤林), Chen Jiarui (陈家瑞), Li Mingde (李明德), William Tai (戴威廉), Cui Hongbin (崔鸿宾), David E. Boufford, Chen Xinqi (陈心启), Huang Chengjiu (黄成就), Chen Shouliang (陈守良), Bruce Bartholomew, Dai Lunkai (戴伦凯), Li Xiwen (李锡文), and Gu Hongya (顾红雅).*



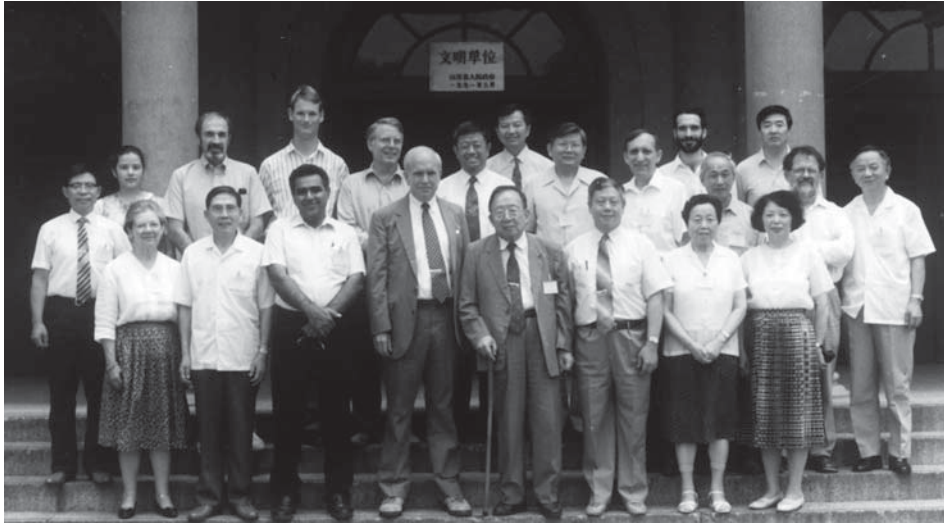
*Flora of China Joint Editorial Meeting, August 28–30, 1989, South China Botanical Garden, Chinese Academy of Sciences, Guangzhou, Guangdong, China. Pictured here are (front row, left to right) Cui Hongbin (崔鸿宾), Huang Chengjiu (黄成就), Nancy R. Morin, Wu Zhengyi (吴征镒), Peter H. Raven, Chen Shouliang (陈守良), Dai Lunkai (戴伦凯), Chen Xinqi (陈心启); (middle row) Xia Zhendai (夏振岱), Zeng Jianfei (曾建飞), Chen Shukun (陈书坤), William Tai (戴威廉), Gu Hongya (顾红雅), Han Jianguo (韩建国), Lin Yourun (林有润), Li Xiwen (李锡文), Xia Xiuwen (夏秀文), Alastair Scott, Chen Jiarui (陈家瑞); (back row) Lu Xinzhong (路新中), Tan Deyan (谈德颜), Bruce Bartholomew, Li Bingtao (李秉滔), Paul P. H. But (毕培曦), Hu Qiming (胡启明), and David E. Boufford.*



*Flora of China Joint Editorial Meeting, October 1–2, 1990, Harvard University, Cambridge, Massachusetts, U.S.A. Pictured here are (front row, left to right) Peter H. Raven, Wu Zhengyi (吴征镒), Chen Shouliang (陈守良), Huang Chengjiu (黄成就); (middle row) David E. Boufford, Gu Hongya (顾红雅), Cui Hongbin (崔鸿宾), Chen Jiarui (陈家瑞), Li Xiwen (李锡文), Bruce Bartholomew; (back row) Ihsan A. Al-Shehbaz, Robert Cook, Orbélia R. Robinson, Chen Xinqi (陈心启), Bryan E. Dutton, Paul P. H. But (毕培曦), William Tai (戴威廉), and Han Jianguo (韩建国).*



*Flora of China Joint Editorial Meeting, June 29–30, 1992, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, Yunnan, China. Pictured here are (front row, left to right) Nancy R. Morin, Chen Shouliang (陈守良), Huang Chengjiu (黄成就), Peter H. Raven, Wu Zhengyi (吴征镒), Laurence E. Skog, Dai Lunkai (戴伦凯), Chen Xinqi (陈心启), Bruce Bartholomew, Cui Hongbin (崔鸿宾); (back row) Ji Xiangsheng (姬翔生), Zhang Shuren (张树仁), Chen Jiarui (陈家瑞), Chen Shukun (陈书坤), Li Xiwen (李锡文), David E. Boufford, William Tai (戴威廉), Ihsan A. Al-Shehbaz, Orbélia R. Robinson, Gu Hongya (顾红雅), Jin Murata, Michael G. Gilbert, Paul P. H. But (毕培曦), Li Dezhu (李德铤), Bao Bojian (包伯坚), and Shi Hongbin (师红斌).*



*Flora of China Joint Editorial Meeting, July 28–29, 1994, Nanjing Botanical Garden Mem. Sun Yat-Sen, Jiangsu Province and Chinese Academy of Sciences, Nanjing, Jiangsu, China. Pictured here are (front row, left to right) Orbélia R. Robinson, Chen Xinqi (陈心启), Ihsan A. Al-Shehbaz, Peter H. Raven, Wu Zhengyi (吴征镒), He Shan'an (贺善安), Chen Shouliang (陈守良), Dai Lunkai (戴伦凯); (back row) Chen Jiarui (陈家瑞), Mulan Bartholomew, David E. Boufford, Mark F. Watson, Bruce Bartholomew, William Tai (戴威廉), He Lin (贺林), Chou Changhung (周昌弘), Laurence E. Skog, Anthony R. Brach, Li Xiwen (李锡文), Zhu Dabao (朱大保), Michael G. Gilbert, and Hu Qiming (胡启明).*



*Flora of China Joint Editorial Meeting, April 8–9, 1995, Royal Botanic Gardens, Edinburgh, U.K. Pictured here are (front row, left to right) Helen Jones, Chen Shouliang (陈守良), Wu Zhengyi (吴征镒), David S. Ingram, Peter H. Raven, Mark F. Watson, Li Dezhu (李德铨); (middle row) Orbélia R. Robinson, Dai Lunkai (戴伦凯), Derek Clayton, Ihsan A. Al-Shehbaz, Michael G. Gilbert, Bruce Bartholomew, Nancy R. Morin, Chen Jiarui (陈家瑞); (back row) Li Xiwen (李锡文), Hong Deyuan (洪德元), Chen Xinqi (陈心启), William Tai (戴威廉), Anna L. Weitzman, Paul P. H. But (毕培曦), Laurence E. Skog, David Chamberlain, Robert Mill, David E. Boufford, and Anthony R. Brach.*



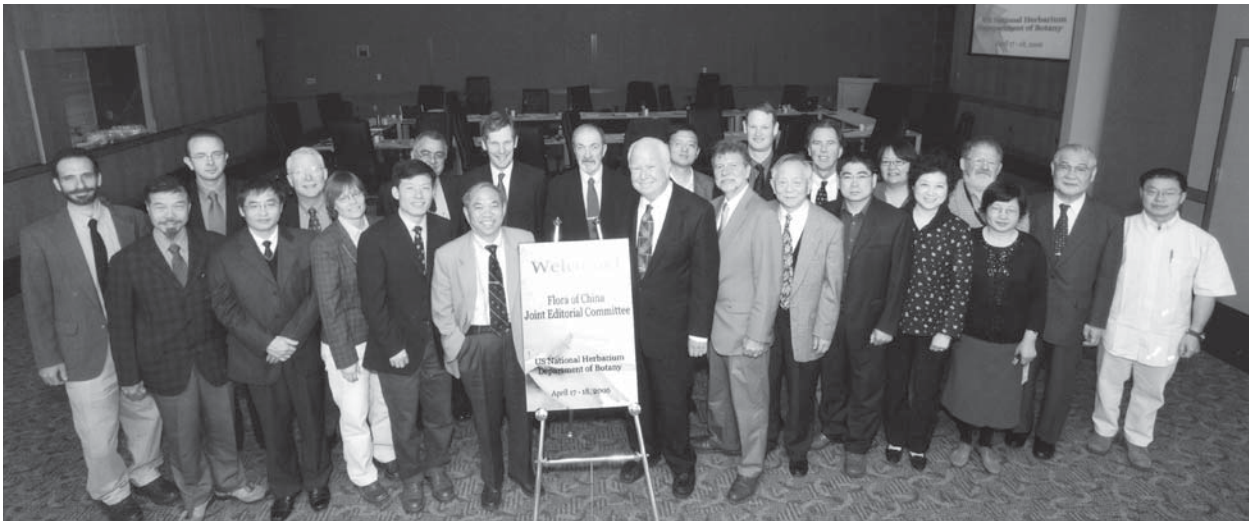
*Flora of China Joint Editorial Meeting, July 23–24, 1996, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, Yunnan, China. Pictured here are (front row, left to right) Ji Xiangsheng (姬翔生), Nancy R. Morin, Laurence E. Skog, Wu Zhengyi (吴征镒), Peter H. Raven, Sun Handong (孙汉董), Orbélia R. Robinson, Chen Shouliang (陈守良); (back row) Lü Chunchao (吕春朝), Li Dezhu (李德铨), Li Xiwen (李锡文), William Tai (戴威廉), Ihsan A. Al-Shehbaz, Dai Lunkai (戴伦凯), Michael G. Gilbert, Gu Hongya (顾红雅), Caroline Gilbert, Chen Jiarui (陈家瑞), and Chen Shukun (陈书坤).*



*Flora of China Joint Editorial Meeting, November 15–16, 1997, National Museum of Natural Sciences, Taichung, Taiwan, China. Pictured here are (front row, left to right) Chiu Shao-Ting (邱少婷), Hu Shiu-Ying (胡秀英), Ihsan A. Al-Shehbaz, Dai Lunkai (戴伦凯), Chen Shouliang (陈守良), Wu Zhengyi (吴征镒), Peter H. Raven, Ching-I Peng (彭镜毅), Orbélia R. Robinson, Li Xiwen (李锡文), Chen Xinqi (陈心启), Chen Jiarui (陈家瑞); (back rows) Yen Hsin-Fu (严新富), Paul P. H. But (毕培曦), Yang Aleck T. Y. (杨宗愈), Hong Deyuan (洪德元), David E. Boufford, Xia Zhendai (夏振岱), Gu Hongya (顾红雅), Duan Jinyu (段金玉), Michael G. Gilbert, Hu Qiming (胡启明), Mark F. Watson, Anthony R. Brach, and Bruce Bartholomew.*



*Flora of China Joint Editorial Meeting, June 28–29, 2004, Institute of Botany, Chinese Academy of Sciences, Beijing, China. Pictured here are (front row, left to right) Ching-I Peng (彭镜毅), Xia Bing (夏冰), Hu Qiming (胡启明), Ihsan A. Al-Shehbaz, Hong Deyuan (洪德元), Peter H. Raven, Simon Owens; (back row, left to right) Li Dezhu (李德铎), Yang Qiner (杨亲二), Nicholas J. Turland, Chen Shilong (陈世龙), Zhu Guanghua (朱光华), W. John Kress, A. Michele Funston, Anthony R. Brach, Michael G. Gilbert, Mark F. Watson, Bruce Bartholomew, David E. Boufford, and Zhang Xianchun (张宪春).*

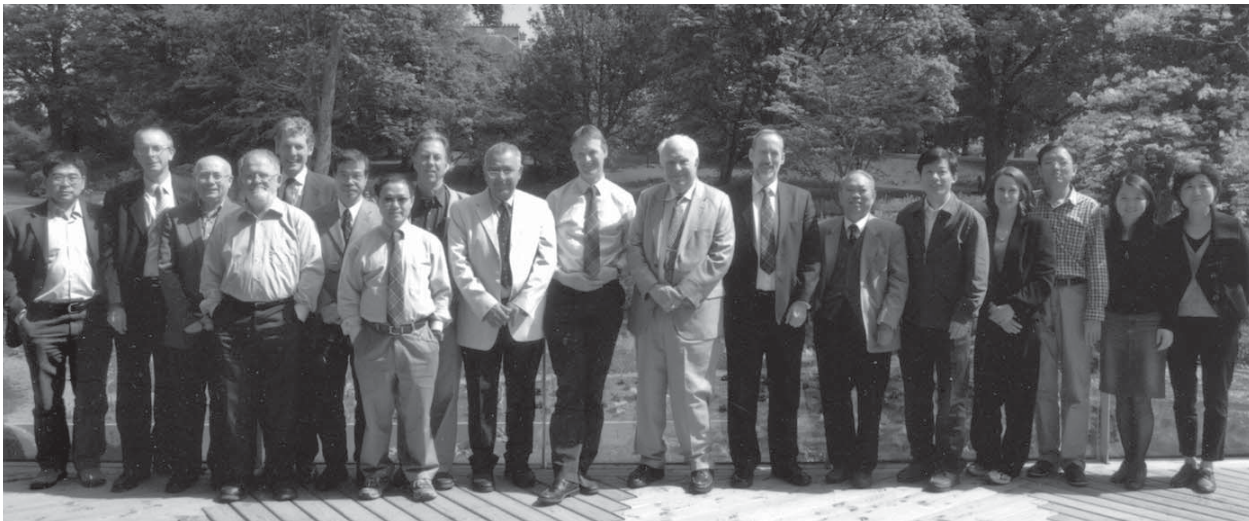


*Flora of China Joint Editorial Meeting, April 28–29, 2006, Smithsonian Institution, Washington DC, U.S.A. Pictured here are (front row, left to right) Anthony R. Brach, Ching-I Peng (彭镜毅), Yang Qiner (杨亲二), A. Michele Funston, Li Dezhu (李德铎), Hong Deyuan (洪德元), Peter H. Raven, W. John Kress, Hu Qiming (胡启明), Zhang Xianchun (张宪春), Gong Xiaolin (宫晓林), Fu Yanfeng (傅燕凤); (back row) Nicholas J. Turland, Bruce Bartholomew, Ihsan A. Al-Shehbaz, Simon Owens, David E. Boufford, Chen Shilong (陈世龙), Mark F. Watson, William A. McNamara, Wen Jun (文军), Michael G. Gilbert, Tetsuo Koyama, and Zhang Libing (张丽兵).*





*Flora of China Joint Editorial Meeting, April 28–29, 2008, Zhejiang University, Hangzhou, Zhejiang, China. Pictured here are (front row, left to right) Michael G. Gilbert, Ihsan A. Al-Shehbaz, Bruce Bartholomew, David E. Boufford, Peter H. Raven, Hong Deyuan (洪德元), Stephen Blackmore, Hu Qiming (胡启明), Li Dezhu (李德铎), Hong Liang (洪亮); (back row) Gong Xiaolin (宫晓林), Lisa J. Pepper, Alexandra Davey, Anthony R. Brach, Yang Qiner (杨亲二), Nicholas J. Turland, William A. McNamara, Xia Bing (夏冰), Zhang Xianchun (张宪春), Chen Shilong (陈世龙), Mark F. Watson, Zhang Libing (张丽兵), Ching-I Peng (彭镜毅), and Fu Chengxin (傅承新).*



*Flora of China Joint Editorial Meeting, May 18–19, 2010, Royal Botanic Gardens, Edinburgh, U.K. Pictured here are (left to right) Zhang Xianchun (张宪春), Nicholas J. Turland, David A. Simpson, Michael G. Gilbert, Simon Owens, Ching-I Peng (彭镜毅), Zhang Libing (张丽兵), William A. McNamara, Ihsan A. Al-Shehbaz, Mark F. Watson, Peter H. Raven, Stephen Blackmore, Hong Deyuan (洪德元), Li Dezhu (李德铎), Alexandra Davey, Chen Shilong (陈世龙), Leng Jing (冷静), and Gong Xiaolin (宫晓林).*

**APPENDIX 1. *FLORA OF CHINA* EDITORIAL COMMITTEE HISTORY 1988–2013**

This timeline lists the volumes (text and illustration) in order of publication and documents the development of the project's organization, i.e., Editorial Committee members, project co-directors, coordinators, committee secretaries, and editorial assistants, which were recorded in the published masthead for each volume.

For 25 years, Wu Zhengyi (吴征镒) and Peter H. Raven served as co-chairs of the Editorial Committee, leading the project from 1988 until its completion. Editorial Committee member Hong Deyuan (洪德元) was appointed vice co-chair in August 2001.

1988 Editorial Committee was established at the founding meeting of the Flora of China project, held in St. Louis, Missouri, October 1–9. Original Editorial Committee members were Bruce Bartholomew, David E. Boufford, Chen Shouliang (陈守良), Chen Xinqi (陈心启 Chen Sing-chi), Cui Hongbin (崔鸿宾 Tsui Hung-pin), Dai Lunkai (戴伦凯), Huang Chengjiu (黄成就 Huang Cheng-chiu, Huang Ching-chieu), Li Xiwen (李锡文 Li Hsi-wen), Nancy R. Morin, Peter H. Raven (co-chair), William Tai (戴威廉), and Wu Zhengyi (吴征镒 Wu Cheng-yih) (co-chair). Committee Secretaries were Chen Jiarui (陈家瑞 Chen Chia-jui) and Gu Hongya (顾红雅).

Between 1988 and 1993, four additional members joined Editorial Committee: Paul P. H. But (毕培曦), Chou Changhung (周昌弘), David S. Ingram, and Laurence E. Skog.

1994 *Flora of China, Volume 17 (Verbenaceae through Solanaceae)* was published.

Project Co-directors were Dai Lunkai (戴伦凯) and William Tai (戴威廉). Co-author Coordinator was Ihsan A. Al-Shehbaz. European Coordinator was Michael G. Gilbert. Editorial Assistants were Ihsan A. Al-Shehbaz, Bao Bojian (包伯坚), Anthony R. Brach, Bryan E. Dutton, Orbélia R. Robinson, and Zhang Shuren (张树仁).

1995 *Flora of China, Volume 16 (Gentianaceae through Boraginaceae)* was published.

Ihsan A. Al-Shehbaz and Hong Deyuan (洪德元) joined Editorial Committee in place of Nancy R. Morin and the late Cui Hongbin (崔鸿宾), who died in 1994. No Editorial Assistants listed for this volume.

1996 *Flora of China, Volume 15 (Myrsinaceae through Loganiaceae)* was published.

William Tai (戴威廉) left Editorial Committee. Ihsan A. Al-Shehbaz left Editorial Assistants and replaced Tai as Project Co-director. Anna L. Weitzman and Zhu Guanghua (朱光华) joined Editorial Assistants. Co-author Coordinator position was discontinued.

1998 *Flora of China, Volume 18 (Scrophulariaceae through Gesneriaceae)* was published.

Huang Chengjiu (黄成就) left Editorial Committee. Hu Qiming (胡启明 Hu Chi-ming), Ching-I Peng (彭镜毅), and Mark F. Watson joined Editorial Committee. Nicholas J. Turland joined Editorial Assistants.

*Flora of China Illustrations, Volume 17* was published.

1999 *Flora of China, Volume 4 (Cycadaceae through Fagaceae)* was published.

David S. Ingram left Editorial Committee. Simon J. Owens and Zhu Guanghua (朱光华) joined Editorial Committee. Bryan E. Dutton, Anna L. Weitzman, and Zhu Guanghua (朱光华) left Editorial Assistants, and Robert DeFilipps joined Editorial Assistants.

*Flora of China Illustrations, Volume 16* was published.

2000 *Flora of China, Volume 24 (Flagellariaceae through Marantaceae)* was published.

Chou Changhung (周昌弘) and Laurence E. Skog left Editorial Committee. Joël Jérémié and W. John Kress joined Editorial Committee.

*Flora of China Illustrations, Volume 15* was published.

*Flora of China Illustrations, Volume 18* was published.

2001 *Flora of China, Volume 8 (Brassicaceae through Saxifragaceae)* was published.

*Flora of China, Volume 6 (Caryophyllaceae through Lardizabalaceae)* was published.

Yang Qiner (杨亲二) replaced Dai Lunkai (戴伦凯) as Project Co-director and joined Editorial Committee. Zhu Guanghua (朱光华) replaced Ihsan A. Al-Shehbaz as Project Co-director. Both Dai Lunkai and Al-Shehbaz remained on Editorial Committee. William A. McNamara joined Editorial Committee as associate member.

- Flora of China Illustrations, Volume 4* was published.
- 2002 *Flora of China Illustrations, Volume 24* was published.
- 2003 *Flora of China, Volume 9 (Pittosporaceae through Connaraceae)* was published.  
*Flora of China, Volume 5 (Ulmaceae through Basellaceae)* was published.  
*Flora of China Illustrations, Volume 8* was published.  
*Flora of China Illustrations, Volume 6* was published.
- 2004 *Flora of China Illustrations, Volume 9* was published.  
*Flora of China Illustrations, Volume 5* was published.
- 2005 *Flora of China, Volume 14 (Apiaceae through Ericaceae)* was published.  
 Paul P. H. But (毕培曦), Chen Shouliang (陈守良), Chen Xinqi (陈心启), Dai Lunkai (戴伦凯), and Li Xiwen (李锡文) left Editorial Committee. Anthony R. Brach, Chen Shilong (陈世龙), Michael G. Gilbert, Li Dezhu (李德铎), Nicholas J. Turland, Xia Bing (夏冰), and Zhang Xianchun (张宪春) joined Editorial Committee. Gong Xiaolin (宫晓林) replaced Chen Jiarui (陈家瑞) and Gu Hongya (顾红雅) as Committee Secretary. European Coordinator and Editorial Assistant positions were discontinued at this time.
- 2006 *Flora of China, Volume 22 (Poaceae)* was published.  
 Zhu Guanghua (朱光华) died in November 2005, and Nicholas J. Turland replaced him as Project Co-director. A. Michele Funston joined Editorial Committee.  
*Flora of China Illustrations, Volume 14* was published.  
 Zhang Libing (张丽兵) joined the project as Editor of Illustration Volumes.
- 2007 *Flora of China, Volume 13 (Clusiaceae through Araliaceae)* was published.  
 Lisa J. Pepper was appointed Editorial Assistant.  
*Flora of China, Volume 12 (Hippocastanaceae through Theaceae)* was published.  
 A. Michele Funston and Simon J. Owens left Editorial Committee. David A. Simpson and Zhang Libing (张丽兵) joined Editorial Committee.  
*Flora of China Illustrations, Volume 22* was published.
- 2008 *Flora of China, Volume 11 (Oxalidaceae through Aceraceae)* was published.  
*Flora of China, Volume 7 (Menispermaceae through Capparaceae)* was published.  
*Flora of China Illustrations, Volume 13* was published.  
*Flora of China Illustrations, Volume 12* was published.
- 2009 *Flora of China, Volume 25 (Orchidaceae)* was published.  
*Flora of China Illustrations, Volume 11* was published.  
*Flora of China Illustrations, Volume 7* was published.
- 2010 *Flora of China, Volume 10 (Fabaceae)* was published.  
*Flora of China, Volume 23 (Acoraceae through Cyperaceae)* was published.  
 (Editorial Committee masthead was omitted in error by printer.)  
*Flora of China Illustrations, Volume 25* was published.
- 2011 *Flora of China, Volume 19 (Cucurbitaceae through Valerianaceae with Annonaceae and Berberidaceae)* was published.  
*Flora of China, Volume 20–21 (Asteraceae)* was published.  
*Flora of China Illustrations, Volume 10* was published.
- 2012 *Flora of China Illustrations, Volume 23* was published.

*Flora of China Illustrations, Volume 19* was published.

2013 Zhang Libing (张丽兵) replaced Nicholas J. Turland as Project Co-director. Turland remained on Editorial Committee.

*Flora of China Illustrations, Volume 20–21* was published.

*Flora of China, Volume 2–3 (Lycopodiaceae through Polypodiaceae)* was published.

*Flora of China Illustrations, Volume 2–3* was published.

*Flora of China, Volume 1 (Introduction)* is published.