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A Brief Introduction to the Publication of Regional Floras in China (IX): Post-print

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Date: 2019-01-30T00:00:00+00:00

Abstract

This study presents publication information for 19 local floras at the provincial, municipal, and inter-provincial levels in China since 2006, including publication year, page count, families, genera, and species of the documented taxa, line drawings, color plates, and other relevant data. Among these, Flora Kunlunensis is an inter-provincial flora spanning five provinces/autonomous regions: Qinghai, Gansu, Sichuan, Xinjiang, and Tibet.

Full Text

Introduction to Local Floras of China (IX)

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DOI: 10.11931/guihaia.gxzw201810031

Abstract

This paper introduces the publication information of 19 local floras at provincial, municipal, and cross-provincial levels in China since 2006, including details on publication year, page count, number of families, genera, and species, as well as line drawings and color photographs. Among these, *Flora Kunlunica* is a cross-provincial flora covering five provinces/autonomous regions: Qinghai, Gansu, Sichuan, Xinjiang, and Tibet.

Keywords: local flora, publication information, bryophytes, vascular plants, China

Introduction

It has been 12 years since the eighth installment of this series was published in *Guihaia* (Vol. 26, No. 1, pp. 13 and 17) in 2006. During this period, numerous works have been published, and colleagues frequently inquire about them. The authors have recently systematically compiled information on the publication of local floras in China, which is reported below. We welcome readers to supplement or correct any omissions.

1. *Flora of Hunan, Volume 3 (2010)*

This volume contains 1,008 pages and includes 22 families, 215 genera, and 976 species and infraspecific taxa of angiosperms from Actinidiaceae to Daphniphyllaceae. Among these, 757 species are accompanied by 410 exquisite plates and 101 color photographs. This flora is planned for 7 volumes; volumes 1, 2, and 3 have been published, while volumes 4-7 are being edited and prepared for publication. The classification systems adopted in this flora are: Ching Ren-Chang (1978) for ferns, Cheng Wan-Chun (1978) for gymnosperms, and Engler (1964) for angiosperms.

2. *Flora of Taiwan (English Edition, Second Edition), Supplement*

The supplement (414 pages) includes 294 species reported in literature published before 2009, comprising 2 gymnosperm species (1 genus, 2 species) and 292 angiosperm species (194 dicotyledons and 98 monocotyledons).

3. *Flora of Yunnan*

- **Volume 10 (2006):** 929 pages, covering 9 families, 173 genera, and 883 species and infraspecific taxa of angiosperms including Violaceae, Zygophyllaceae, Tropaeolaceae, Erythroxylaceae, Euphorbiaceae, Pandaceae, Mimosaceae, Papilionaceae, and Juglandaceae.
- **Volume 12 (2006):** 884 pages, documenting 13 families, 85 genera, 888 species, 203 subspecies and varieties of angiosperms including Saxifragaceae, Aizoaceae, Begoniaceae, Cactaceae, Grossulariaceae, Rosaceae, Ulmaceae, Rhamnaceae, Elaeagnaceae, Connaraceae, Rhoipteleaceae, Alangiaceae, and Stylidiaceae.
- **Volume 14 (2004):** 885 pages, covering 2 families (Palmae and Orchidaceae), 162 genera, 840 species, and 37 varieties, with 179 [Figure 179: see original paper] illustrations.
- **Volume 16 (2006):** 876 pages, including 12 families, 140 genera, 879 species, and 78 subspecies and varieties of angiosperms such as Magnoliaceae, Basellaceae, Balsaminaceae, Saurauaceae, Hydrangeaceae, Celastraceae, Dipentodontaceae, Symplocaceae, Plantaginaceae, Scrophulariaceae, Orobanchaceae, and Acanthaceae, with 234 plates.
- **Volume 19 (2005):** 681 pages, covering the last subclass of Bryopsida: the Bryidae, including 6 orders (Bryales, Isobryales, Hookeriales, Hypno-

bryales, Buxbaumiales, and Polytrichales), totaling 39 families, 194 genera, and 554 species and infraspecific taxa.

- **Volume 20 (2006):** 785 pages, including 42 families, 123 genera, 762 species, 31 varieties, and 8 forms of ferns from Psilotaceae to Peranemaceae.
- **Volume 21 (2005):** 477 pages, covering 18 families, 70 genera, 504 species, and 4 varieties of ferns from Dryopteridaceae to Azollaceae.

The complete flora comprises 21 volumes, with volumes 1-16 for seed plants (gymnosperms at the beginning of Volume 4), volumes 17-19 for bryophytes, and volumes 20-21 for ferns. The classification systems used are: R. M. Schuster (1966) and R. Grolle (1983) for Hepaticae and Anthocerotae; Chen Bang-Jie (1963) for mosses; Ching Ren-Chang (1978) for ferns; Cheng Wan-Chun (1978) for gymnosperms; and Hutchinson (1926, 1934) for angiosperms. Families are arranged according to their original system numbers; any families established separately by authors are listed after the original families with letters a, b, etc., added to the family numbers for distinction. Additionally, *Flora of Yunnan – General Index of Chinese Names, Latin Names, and Economic Plants* was compiled and published (2010).

4. *Flora of Guangxi*

- **Volume 2 (2006):** 947 pages, documenting 38 families, 338 genera, and 1,556 species (including subspecies, varieties, and forms) of angiosperms including Melastomataceae, Combretaceae, Rhizophoraceae, Hypericaceae, Clusiaceae, Tiliaceae, Elaeocarpaceae, Plagiopteraceae, Sterculiaceae, Bombacaceae, Malvaceae, Malpighiaceae, Erythroxylaceae, Ixonanthaceae, Euphorbiaceae, Daphniphyllaceae, Iteaceae, Grossulariaceae, Hydrangeaceae, Rosaceae, Dichapetalaceae, Calycanthaceae, Mimosaceae, Caesalpiniaceae, Papilionaceae, Stachyuraceae, Hamamelidaceae, Eucommiaceae, Buxaceae, Platanaceae, Salicaceae, Myricaceae, Betulaceae, Corylaceae, Fagaceae, Casuarinaceae, Ulmaceae, and Urticaceae, with 358 plates.
- **Volume 3 (2011):** 1,024 pages, covering 50 families, 318 genera, 1,393 species, 5 subspecies, 168 varieties, and 5 forms of angiosperms from Moraceae to Asclepiadaceae, with 391 plates.
- **Volume 5 (2016):** 1,073 pages, documenting monocotyledons including 45 families, 451 genera, 1,677 species, 19 subspecies, 57 families, 159 genera, and 833 species (including infraspecific taxa), with 112 plates. The final Volume 4 will be published soon.

5. *Flora of Guangdong*

- **Volume 6 (2005):** 445 pages, covering 25 families, 203 genera, 767 species, 11 subspecies, 48 varieties, and 4 forms of vascular plants including Lauraceae, Trapaceae, Haloragaceae, Urticaceae, Cannabaceae, Rubiaceae, Gesneriaceae, Hydrocharitaceae, Posidoniaceae, Aponoget-

onaceae, Potamogetonaceae, Ruppiaceae, Zannichelliaceae, Najadaceae, Commelinaceae, Xyridaceae, Liliaceae, Smilacaceae, Typhaceae, Iridaceae, Dioscoreaceae, Pandanaceae, Juncaceae, Centrolepidaceae, and Restionaceae.

- **Volume 7 (2006):** 543 pages, including 59 families, 254 genera, 889 species, 27 varieties, and 2 forms of pteridophytes and Orchidaceae of angiosperms.
- **Volume 8 (2007):** 431 pages, covering 10 families, 188 genera, 765 species, 1 subspecies, 51 varieties, and 4 forms of angiosperms including Onagraceae, Melastomataceae, Betulaceae, Corylaceae, Celastraceae, Vitaceae, Cornaceae, Asteraceae, Pontederiaceae, and Cyperaceae.
- **Volume 9 (2009):** 558 pages, documenting 14 families, 217 genera, 792 species, 15 subspecies, 33 varieties, and 4 forms of angiosperms including Fagaceae, Balanophoraceae, Boraginaceae, Bignoniaceae, Acanthaceae, Alismataceae, Eriocaulaceae, Bromeliaceae, Trilliaceae, Araceae, Stemonaceae, Agavaceae, Taccaceae, and Poaceae.
- **Volume 10 (2011):** 330 pages, containing keys to families of seed plants in Guangdong, general index of scientific names, brief history of botanical research in Guangdong, history of plant specimen collection at the South China Institute of Botany (Garden), and postscripts. All 10 volumes of *Flora of Guangdong* have now been completed.
- **Flora of Guangdong Bryophytes (2013):** 552 pages, documenting 87 families, 279 genera, and 944 species of bryophytes from Guangdong and Hainan, with 328 [Figure 328: see original paper] line drawings.

6. *Flora of Northeast Herbaceous Plants, Volume 8 (2005)*

This volume (246 pages) documents 15 families, 71 genera, 175 species, 30 varieties, and 12 forms of herbaceous plants in Northeast China from Tubiflorae and Solanineae, including Solanaceae to Cucurbitaceae. All 12 volumes of this flora have now been published.

7. *Flora of Xinjiang*

- **Volume 3 (2011):** 710 pages, covering Leguminosae to Umbelliferae, including 39 families, 168 genera, 747 species, 35 subspecies and varieties, with 144 plates.
- **Volume 4 (2004):** 573 pages, including Pyrolaceae to Campanulaceae, containing 27 families, 174 genera, 616 species, 1 subspecies, and 18 varieties, with 163 plates.

All 6 volumes and 7 fascicles of *Flora of Xinjiang* have now been published. Additionally, a concise version of *Flora of Xinjiang* (2014) was published in one volume with 1,007 pages, including ferns and seed plants.

8. *Flora of Gansu, Volume 2 (2005)*

This volume (606 pages) documents dicotyledons including Juglandaceae, Salicaceae, Betulaceae, Fagaceae, Ulmaceae, Eucommiaceae, Moraceae, Urticaceae, Olacaceae, Santalaceae, Loranthaceae, Balanophoraceae, Polygonaceae, Phytolaccaceae, Nyctaginaceae, Aizoaceae, Portulacaceae, Basellaceae, Caryophyllaceae, Chenopodiaceae, Amaranthaceae, Cactaceae, Magnoliaceae, Schisandraceae, Illiciaceae, Calycanthaceae, Lauraceae, Tetracentraceae, Cercidiphyllaceae, and Trochodendraceae, with 107 plates and 3 artificially cultivated species.

9. *Flora of Ningxia (Second Edition), Volumes 1-2 (2007)*

- **Volume 1 (635 pages):** Covers ferns, gymnosperms, and dicotyledons from Chloranthaceae to Lythraceae, totaling 77 families, 290 genera, and 942 species (including subspecies, varieties, and forms).
- **Volume 2 (642 pages):** Documents dicotyledons from Onagraceae to Asteraceae and all monocotyledons, totaling 53 families, 354 genera, and 926 species (including subspecies, varieties, and forms).

10. *Flora of Tianjin, Complete Volume (2004)*

This single volume (994 pages) documents wild and commonly cultivated higher plants in Tianjin, including 6 genera and 6 species of ferns (18 families, 20 genera, 34 species, 1 variety), 7 families, 9 genera, and 12 species of gymnosperms, and 133 families, 713 genera, 1,304 species, 6 subspecies, 126 varieties, and 18 forms of angiosperms.

11. *Flora of Sichuan*

- **Volume 5(1) (2017):** 427 pages, documenting Poaceae (Festuceae, Triticeae) including 37 genera, 268 species, 7 subspecies, and 18 varieties, with 172 plates.
- **Volume 16 (2005):** 414 pages, covering 14 families, 79 genera, 297 species, 2 subspecies, 55 varieties, and 2 forms including Moraceae, Hamamelidaceae, Simaroubaceae, Tamaricaceae, Lythraceae, Araliaceae, Loganiaceae, Buddlejaceae, Gesneriaceae, Pontederiaceae, Juncaceae, Bromeliaceae, Xyridaceae, and Eriocaulaceae, with 124 plates.
- **Volume 21 (2005):** 549 pages, documenting 12 families, 72 genera, 442 species, 5 subspecies, 48 varieties, and 2 forms including Betulaceae, Fagaceae, Olacaceae, Santalaceae, Magnoliaceae, Guttiferae, Crassulaceae, Burseraceae, Meliaceae, Plumbaginaceae, and Oleaceae, with 158 plates. The volume includes a catalog of published volumes and statistics of families, genera, and species.

To date, *Flora of Sichuan* has published volumes 1-17 and 21.

12. *Flora of Qinling*

- **Supplement (2013):** 419 pages, adding 6 families (Najadaceae, Olacaceae, Sargentodoxaceae, Torricelliaceae, Haloragaceae, and Theligonaceae), 61 genera, and over 400 species, with 267 [Figure 267: see original paper] figures. It also includes a checklist of Qinling seed plants and 52 color photographs.
- **Second Edition, Volume 2: Lycophytes and Ferns (2013):** 298 pages, documenting 27 families, 75 genera, and 319 species (including infraspecific taxa) of lycophytes and ferns from Qinling, with 38 newly added species in 3 genera. The family and genus arrangement follows Zhang Xian-Chun's (2012) classification system for Chinese lycophytes and ferns.

13. *Flora of Jiangxi, Volume 3 (2014)*

- **Part 1 (410 pages):** Documents 16 families, 140 genera, 410 species, 53 varieties, and 8 forms of dicotyledons from Mimosaceae to Umbelliferae, with 407 [Figure 407: see original paper] line drawings and 96 [Figure 96: see original paper] color photographs.
- **Part 2:** Documents 7 forms with 528 line drawings and 143 color photographs. This flora adopts the Hutchinson system.

14. *Flora of Jiangsu, Second Edition*

- **Volume 1 (2015):** 573 pages, including the natural environment and plant indicators of Jiangsu; keys to families of higher plants in Jiangsu; bryophytes (62 families, 160 genera, 350 species, 1 subspecies) with 349 [Figure 349: see original paper] line drawings and 31 color photographs, following Chen Bang-Jie (1972); ferns (30 families, 67 genera, 164 species, 1 subspecies, 7 varieties) with 165 [Figure 165: see original paper] line drawings and 75 color photographs, primarily following Ching Ren-Chang (1978); and gymnosperms (10 families, 32 genera, 67 species, 5 varieties) with 69 line drawings and 33 color photographs, following Cheng Wan-Chun (1978). The volume includes color morphological terminology plates.
- **Volume 2 (2013):** 507 pages, covering 72 families of Magnoliidae (Magnoliaceae, Hamamelididae, Caryophyllidae, and Dilleniidae) with 776 [Figure 776: see original paper] line drawings and 144 color photographs, using Cronquist (1981) for angiosperms.
- **Volume 3 (2015):** 528 pages, covering 49 families of Rosidae with 776 line drawings and 149 color photographs.
- **Volume 4 (2015):** 540 pages, covering 39 families of Asteridae with 784 [Figure 784: see original paper] line drawings and 140 color photographs.
- **Volume 5 (2015):** 473 pages, covering 35 families of Liliopsida including Alismatidae (7 families), Arecidae (5 families), Commelinidae (7 families), Zingiberidae (6 families), and Liliidae (10 families), with 676 [Figure 676: see original paper] line drawings and 153 color photographs.

All 5 volumes of the second edition of *Flora of Jiangsu* have been completed.

15. *Flora of Hong Kong*

- **English Edition:** Volume 1 (2007) includes 85 families and 628 species of gymnosperms and Magnoliidae; Volume 2 (2008) includes 56 families and 615 species of Rosidae; Volume 3 (2009) includes 29 families and 593 species of Asteridae; Volume 4 (2011) includes 40 families and 713 species of monocotyledons (Liliidae). The English edition is now complete.
- **Chinese Edition:** *Flora of Hong Kong: Pteridophyta* (2003) includes 47 families, 96 genera, 239 species, 3 varieties, plus 67 cultivated species and 14 doubtful species. *Flora of Hong Kong, Volume 1* (2015) includes gymnosperms and angiosperms of Magnoliidae, Hamamelididae, Caryophyllidae, and Dilleniidae (Primulaceae).

16. *Flora of Macau*

- **Volume 1 (2005):** Includes ferns, gymnosperms, and angiosperms from Magnoliaceae to Caesalpiniaceae, totaling 153 families and 554 species.
- **Volume 2 (2006):** Documents 63 families and 594 species of angiosperms from Leguminosae to Asteraceae.
- **Volume 3 (2007):** Includes 58 families and 380 species of monocotyledons from Butomaceae to Orchidaceae and supplements.
- **General Index of Flora of Macau.**
- **Flora of Macau Bryophytes (2010):** Documents 14 families of liverworts, 2 families of hornworts, and 18 families of mosses.

17. *Flora Kunlunica* (4 volumes)

- **Volume 1 (2014):** 593 pages, covering ferns, gymnosperms, and angiosperms from Salicaceae to Brassicaceae, including 28 families, 141 genera, 504 species, 4 subspecies, 69 varieties, and 4 forms, with 82 line plates and 16 color plates.
- **Volume 2 (2015):** 776 pages, documenting angiosperms from Crassulaceae to Umbelliferae, including 25 families, 124 genera, 609 species, 7 subspecies, 47 varieties, and 12 forms, with 89 line plates and 20 color plates.
- **Volume 3 (2012):** 942 pages, covering Ericaceae to Asteraceae, including 24 families, 184 genera, 786 species, 11 subspecies, 53 varieties, and 2 forms, with 165 line plates and 20 color plates.
- **Volume 4 (2013):** 601 pages, including monocotyledons from Typhaceae to Orchidaceae, with 10 families, 106 genera, 532 species, 15 subspecies, and 37 varieties, with 80 line plates and 8 color plates.

In total, the flora includes 87 families, 555 genera, 2,431 species, and 261 infraspecific taxa. The classification systems used are: Ching Ren-Chang (1978)

for ferns, Cheng Wan-Chun (1978) for gymnosperms, and Engler (1936) for angiosperms.

18. *Flora of Guizhou Bryophytes*

- **Volume 1 (2014):** 509 pages, covering 21 families from Sphagnaceae to Calymperaceae, including 99 genera, 451 species, 2 subspecies, and 11 varieties.
- **Volume 2 (2014):** 686 pages, covering 35 families from Neckeraceae to Polytrichaceae, including 182 genera, 583 species, 4 subspecies, and 17 varieties.

The two volumes include 57 families, 282 genera, 1,035 species, 5 subspecies, and 29 varieties (questionable count), with 436 [Figure 436: see original paper] line drawings and 42 scanning electron microscope plates. The flora is planned for 3 volumes; Volume 3, containing liverworts and hornworts, is being compiled. The classification primarily follows *Moss Flora of China* and *Higher Plants of China* Volume 1.

19. *Flora of Hainan (14 volumes, 2015)*

This flora includes 243 families, 1,895 genera, and 6,036 species of vascular plants from Hainan. The classification systems are: primarily Ching Ren-Chang (1978) for ferns, Cheng Wan-Chun (1978) for gymnosperms, and Hutchinson (1926, 1934) for angiosperms.

- **Volume 1 (557 pages):** Ferns, including 33 families, 127 genera, and 516 species.
- **Volume 2 (425 pages):** Gymnosperms (9 families, 24 genera, 76 species) and dicotyledons from Magnoliaceae to Aristolochiaceae (23 families).
- **Volume 3 (578 pages):** Dicotyledons from Nepenthaceae to Cactaceae (64 families).
- **Volume 4 (400 pages):** Dicotyledons from Theaceae to Sterculiaceae (15 families).
- **Volume 5 (361 pages):** Dicotyledons from Bombacaceae to Dichapetalaceae (10 families).
- **Volume 6 (397 pages):** Dicotyledons—Leguminosae.
- **Volume 7 (379 pages):** Dicotyledons from Hamamelidaceae to Celastraceae (13 families).
- **Volume 8 (401 pages):** Dicotyledons from Icacinaceae to Araliaceae (25 families).
- **Volume 9 (414 pages):** Dicotyledons from Umbelliferae to Asclepiadaceae (13 families).
- **Volume 10 (539 pages):** Dicotyledons from Rubiaceae to Boraginaceae (13 families).
- **Volume 11 (500 pages):** Dicotyledons from Solanaceae to Labiatae (12 families).

- **Volume 12 (380 pages):** Monocotyledons from Hydrocharitaceae to Dioscoreaceae (28 families).
- **Volume 13 (502 pages):** Monocotyledons from Palmae to Orchidaceae (6 families).
- **Volume 14 (666 pages):** Monocotyledons from Juncaceae to Poaceae (5 families).

In total, the angiosperms include 201 families, 1,744 genera, and 5,444 species. This flora essentially supplements and revises the original *Flora of Hainan*, with most species accompanied by color photographs, though the lack of keys makes it somewhat difficult to distinguish closely related species.

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Note: Figure translations are in progress. See original paper for figures.

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