



**A BIBLIOGRAPHY OF  
EASTERN ASIATIC BOTANY**

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and  
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**SPONSORED BY THE  
SMITHSONIAN INSTITUTION  
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## PREFACE

**T**HE TASK of preparing this bibliography was made a joint project between the Smithsonian Institution and the New York Botanical Garden in 1931 when the senior author was Director of the latter institution. The plan then adopted involved publication under the auspices of the Smithsonian Institution, but when the manuscript was completed to cover items that had appeared up to the end of the year 1935, funds were not available to cover the cost of printing such an extensive work. Neither author anticipated, when work on the project was initiated, that it would reach such large proportions. Current literature was examined through the year 1936 with a view to keeping the manuscript up to date, and December 1936 was made the closing date for the inclusion of bibliographic items, except that parts of continued papers appearing in 1937 have been added.

Under the original plan of publication the forms of citation to periodical literature used in the preparation of the manuscript were not always those preferred by the authors, but are the official ones approved for publications issued under the auspices of the United States National Herbarium. Similarly the decapitalization of all specific names regardless of their sources, except those appearing in actual titles, follows the practice of the National Herbarium. When the plan of publication was changed, the authors were at liberty to select their own forms of presentation. Because of the very large amount of editorial work that would be necessary to make such changes and at the same time to retain consistency, neither author felt justified in devoting time and energy to such a task. Thus, although the work is now actually published under the auspices of an institution that has rather consistently followed somewhat different rules both as to the citation of periodical literature, and in the capitalization of certain types of specific names, some of the forms used are at variance with those utilized in its previous publications such as the "Bradley Bibliography" and the "Catalogue of the Library of the Arnold Arboretum" and its "Supplement."

In 1937, after several attempts to secure publication under the auspices of other institutions and organizations had failed, it was decided to attempt publication by the Arnold Arboretum. An appeal was made to the Trustees of the Harvard-Yenching Institute for a grant to cover a part of the cost of publication. We are under very great obligations to the officials of that institution for their favorable action on our request. Its generous grant doubtless would have made publication possible had we elected to avail ourselves of the kind offices of Doctor H. H. Hu, Director of the Fan Memorial Institute of Biology, Peiping, China, to assist us in seeing the work through the press in China. Encouraged by the grant made by the Trustees of the Harvard-Yenching Institute, and by a smaller grant made by the Smithsonian Institution, the matter was placed before a friend of Harvard University, who prefers to remain anonymous. He very generously offered to supply the balance necessary to cover the cost of printing, provided that publication be effected in the United States and that the work be issued under the auspices of the Arnold Arboretum of Harvard University.

We therefore wish to express our appreciation to the authorities of the Smithsonian Institution for their support of the project since its inception in 1928, to those of the New York Botanical Garden, for the large measure of support granted by that institution from 1931 to date, and to the Smithsonian Institution, to the Trustees of the Harvard-Yenching Institute, and to our anonymous supporter for the financial aid that finally rendered publication possible.

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## INTRODUCTION

WORK on this bibliography was initiated at the Smithsonian Institution in 1928, when the junior author, engaged in identifying material received by the United States National Museum, found it necessary to familiarize himself with the literature concerning the plants of China. The objective at first was to list only entries referring to papers on the higher groups of plants of the Chinese flora alone. Since, however, a large number of periodicals were to be examined article by article, or in many cases even page by page, it seemed advisable to extend the scope of the project and to include the literature on all groups of plants for all of eastern Asia, except north-eastern Siberia.

The area covered by this bibliography comprises China, Japan, Formosa, Korea, Manchuria, Mongolia, Tibet, and eastern and southern Siberia. The major published papers appertaining to adjacent areas, such as the Philippines, Indo-China, Siam, Burma, India, and central and northern Asia are included because of their importance in the study of the plants of eastern Asia, and because through them the subsidiary literature on these areas can be reached. Since there is no sharp differentiation between the floras of eastern and of central Asia, the precise geographical boundaries established in the beginning of the project were gradually extended as the work progressed and more of the literature on central Asia and adjacent Siberia was included. It should be remembered, however, that the literature on the border regions north and west of China has been less completely covered, because the limits were extended after the work was begun, and because of our practice of including only the most important works dealing with these regions.

The objective has been to record those papers to which botanists who are concerned with the study of the plants of this area must or should refer. Papers devoted entirely to physiology, morphology, cytology, and genetics, and those without distinct taxonomic, geographic, or economic significance are omitted. In the lower groups, especially of the fungi and algae, the demarcation between taxonomic and physiological and morphological aspects is so obscure that less completeness can be expected than in the literature dealing with the higher plants. Hence, certain users of this bibliography will doubtless fail to find some papers which are perhaps more worthy of inclusion than are others which have been included. Although the point of view in selection has been taxonomic, admitted papers are by no means confined to that field. Papers on ecology, phyto-

geography, exploration, economic botany, the history of botany, bibliography, phylogeny, pathology, agriculture, horticulture, forestry, materia medica, pharmacy, biography, and many other subjects have been listed. Special attention has been given to bibliographies, because of their value in indicating other data accessory to those made directly available here.

An attempt has been made to include all independently published works, as well as all papers appearing in periodical literature that appertain to the region covered. In the latter group the method of procedure was, first, to examine page by page or article by article the principal botanical serials, and later the secondary ones, listing all original articles referring to our field, and noting references to other pertinent papers. These latter references were subsequently verified, corrected, and annotated by comparison with the originals. The second step was to examine review-serials, bibliographies and catalogues for references later to be verified. Among the more important review-serials so examined the following may be listed: Just's "*Botanischer Jahresbericht*," "*Botanisches Centralblatt*," "*Botanische Jahrbücher*," "*Bulletin de la Société Botanique de France*," "*Botanical Abstracts*" and its successor, "*Biological Abstracts*," "*Japanese Journal of Botany*," "*Lingnan Science Journal*," and "*Acta Phytotaxonomica et Geobotanica*." In current literature the mimeographed weekly publication, "*Plant Science Literature*," issued by the library of the Bureau of Plant Industry of the United States Department of Agriculture, has proved to be invaluable.

Numerous papers are never noticed in reviews, abstracts, and literature lists. We have located many such articles through incidental references in various texts or among the literature citations in formal taxonomic treatments. In all probability some valuable items have been overlooked. As occidental libraries are of necessity handicapped in securing oriental literature, and as most occidental reviewers and specialists are unable to deal directly with works in other than the principal occidental languages, omissions of some Japanese, Chinese, and Russian works are to be expected. Publications known to us only through references found in reviews and elsewhere, and of which no copies were available to us, are designated as "not seen." We have, however, made serious attempts to examine each article admitted, except where they were not available to us in the libraries in which the work was principally done. The source of such references is stated when this source itself may be of interest to

those seeking the unverified works. It is hoped that those who may detect omissions or errors will notify the authors. Such data may then be included in supplements, which it will be desirable to publish from time to time because of the continually increasing botanical literature on this area. During the later stages of the work it has been very gratifying to the authors to find how comparatively few titles not already listed have appeared in recent bibliographies or in reviews. On the whole, and excepting the possible omissions noted above, the authors feel confident that a high degree of completeness has been attained.

It has often been extremely difficult to determine whether or not to include certain types of literature such as papers on plant pathology, horticulture, agriculture, and forestry, and as a result there is a certain lack of uniformity. Some periodicals, which are almost wholly confined to these marginal subjects, have not been examined, while incidental papers on the same subjects appearing in periodicals which were examined in detail have often been included. It is exceedingly difficult, in compiling an extensive bibliography, properly to evaluate various articles. This is especially true of horticultural papers, for in this field compiled and repeated information is particularly abundant. In such periodicals as "The Gardener's Chronicle," "The Garden," and similar horticultural serials, which do contain much of value in the included botanical papers, we may have erred in including too many purely horticultural articles.

The transliteration of languages using non-Roman alphabets, especially Chinese, Japanese, and Russian, has been necessary throughout because of printing and editorial requirements. The rules of the Library of Congress for transliterating Russian have been used, the correspondence of letters being as follows:

А а	а	И и	и	С с	с	Ъ ъ	
Б б	б	Я я	я	Т т	т	Ы ы	у
В в	в	К к	к	У у	у	Ь ь	'
Г г	г	Л л	л	Ф ф	ф	Ъ ъ	ѣ
Д д	д	М м	м	Х х	kh	Э э	е
Е е	е	Н н	н	Ц ц	ts	Ю ю	iū
Ж ж	zh	О о	о	Ч ч	ch	Я я	iā
З з	z	П п	p	Ш ш	sh	Ө ө	f
И и	i	Р р	r	Щ щ	shch	В в	y

Due to official changes promulgated by the Kerensky government in the Russian language in 1918, certain apparent inconsistencies will appear in the transliteration of some titles.

Most of the Chinese characters have been transliterated according to the widely used Sir Thomas Wade system. The rendering of Chinese into Roman letters, or romanization, has been done almost exclusively by the chief and staff of the Division of Orientalia of the Library of Congress, to whom the

authors are thereby deeply indebted. The transliteration of Japanese, rendered chiefly according to the Hepburn system, has been done by a number of translators who have generously given much time to this work. Because the authors lack intimate knowledge of the oriental and Slavic languages, and of many details of the more familiar western languages, absolute uniformity of treatment has not been possible. Some inevitable inconsistencies are due to changes occurring in the various languages during the wide period of time covered and to the varying practices of numerous authors and editors.

Russian, Japanese, and Chinese titles of separate books, but not of articles in serials, have been both transliterated and translated. Such titles in serials and periodicals have been translated only, but the full title or titles of the serials can usually be found by referring to the list of abbreviations and full titles, p. xiii.

An exception to the rules of transliterating Russian, Japanese, and Chinese according to the Library of Congress procedure, the Hepburn system and the Wade system, respectively, has been made in the case of the names of authors who have themselves consistently transliterated their names according to other systems, such forms having become thoroughly established in botanical literature. In these cases no rigid rules can be satisfactorily applied, and the preferences or practices of the authors concerned should be followed. Where authors are not consistent in rendering their names in Roman letters, cross references have been given for the major variations. The greatest difficulties have been found in the Chinese names. Many Chinese authors do not appreciate the confusion arising from random and inconsistent transliterations of their names. Because of the difficulties involved it has been considered appropriate to give all Chinese names in full, except those of certain well-known authors, such as W. Y. Chun, R. C. Ching, and H. H. Hu, who consistently publish with, and are well known by, their initials only. A reference list of Chinese authors with their corresponding characters will be found in the appendix, p. 584. It would be very desirable if every publication in Chinese bore, associated with the author's name in characters, the romanization of the full name just as the author wishes it to appear. Such a convention would undoubtedly make for greater dissemination and serviceability of the papers of oriental writers and would further promote that friendly interchange of ideas among diverse peoples, which is the keynote of modern science.

The names of Japanese botanists as they appear in current literature are usually rendered in Roman letters with much more uniformity than are Chinese names. However, in order to reduce confusion, the practice has

been adopted of giving the full romanized names in all cases where there are two or more authors with the same family name. Otherwise initials only have been used. However, the supplementary list of Japanese author's names on p. 587 gives the full romanization wherever the characters are available.

Practically all periodicals and serial titles are abbreviated. Because of the large number of serials, over 1200 being referred to, these abbreviations with their full titles and numerous variations in their names, together with much subsidiary information useful in locating the original works in libraries and catalogues, are given, p. xiii. Not all variations in the titles of these serials are given here, because in some cases only one or a very few references were taken from certain serials, and variations in earlier and later numbers were not observed. When users need more precise and complete information concerning these serials, reference should be made to that monumental publication of the American Library Association, the "Union List of Serials" and its supplements, to the larger library catalogues, and to other basic bibliographic works. Because of the unfamiliarity of western and oriental botanists with the Russian language, the abbreviations here used are those of the non-Russian titles of the serials from that country. When there is no such foreign language title, the abbreviation is based on the transliterated Russian title. The abbreviations of Chinese and Japanese serials which have titles in both occidental and oriental languages are based on the occidental titles, but if the title appears only in oriental characters the abbreviation is based on a translation. The full Russian, Japanese, and Chinese titles in transliterated form can usually be secured by referring to the list of abbreviations and full titles and the reference lists of oriental serials, p. 562-583.

In the main the form of citation for series, volumes, pages, and illustrations is that adopted by most American botanists, and is derived from the "Rules for citation adopted by the Madison (Wisconsin) Botanical Congress."<sup>1</sup> Changes and additional forms have been adopted as necessary to meet the requirements of the almost infinite number of variations in forms of publication. It is the belief of the authors that practically every conceivable form and variation in indicating series, volumes, etc. has at some time been used, so numerous have been those observed in the course of this work. To devise a system for citing all periodicals uniformly and clearly has been a difficult task, and one only in part successful. In some cases the reasons for the form will doubtless be apparent only when the publication is at hand. It has been the aim in forming the abbreviations to make them so clear that the

periodicals can be readily located even by the uninitiated and inexperienced, and to eliminate possible confusion when similar titles are involved. We have endeavored in doubtful cases to give too much rather than too little information. No extravagant claim is made as to the total accuracy or completeness of the citations, but within the limits imposed by the size of the task and the difficulties encountered in its preparation these citations will be found to be reasonably accurate and complete.

To ascertain the exact date of publication of a work is often a most difficult task. Obviously, extensive investigation into the exact date of publication of every entry in a bibliography of the size of this cannot be expected. Such investigation has been made whenever feasible. Reference to the source of such information has often been given. Since titles of articles are usually short and often fail to give the reader sufficient information concerning the content of the work, annotations are here added to supply this need. Besides additional information on the content or character of the works cited, the annotations contain much information on re-publications and comments by other workers; there are about 1400 cross references. However, users are warned not to place too great reliance upon these brief annotations for completeness of information, because it is obvious that in preparing a large bibliography of great diversity each article or book could be only superficially scanned. Doubtless in some cases valuable data have been omitted from the annotations or erroneously recorded. Again we ask the indulgence of our readers and their cooperation in indicating errors for possible future supplements.

As one scans the numerous titles in this work, long and short, one is impressed by the apparent fact that most of them are descriptive and inclusive. There are, however, certain types of titles that are most exasperating to the bibliographer who attempts to determine whether or not an article qualifies for inclusion in a bibliography limited to certain geographic areas. Examples are "Orchidaceae novae," "Orchidologische Beiträge," "Plantes cellulaires exotiques nouvelles," "Neue Cyperaceen," "Diagnoses neuer Cyperaceen," "Neue Flechten," "Gramineae novae," "Einige neue Pilze," and numerous similar ones. In all such inadequately titled articles one must examine each individual entry before he can safely accept or reject it. In such a title as "Diagnoses d'espèces nouvelles" two words would have indicated at least the major group involved, and in "Decades plantarum novarum vel minus cognitarum" a slight change and the addition of one word would have indicated the major group and the area involved. Either of these titles might apply to any group of plants in the algae, fungi, musci, hepa-

<sup>1</sup> Bull. Torrey Club 22: 130-132. 1895.

taeae, pteridophytes or spermatophytes, and to material from any part of the world.

There are a certain number of absolutely misleading titles. "On the plants of Kohima and Munepore" on its face applies to Indian species, and yet it contains the original description of one species from south-eastern China and a critical note on another one. From "Oxalidaceae novae Americanae" one would expect to find only American species, yet this article contains the original descriptions of two new species from eastern Asia, and from "Studies in American plants" one has no right to expect to find a new name for a Formosan species. From "Ueber einige von J. Bornmueller im Jahre 1900 auf den Canarischen Inseln gesammelte Uredineen" one would naturally expect to find only Canary Island species considered, yet we note that the article contains the original description of *Aecidium hamamelidis* based on a specimen from Japan. "Descriptions of plants collected by William Gambill, M. D., in the Rocky Mountains and Upper California" actually contains the description of one new species from Canton, China. "The genus *Fraxinus* in New Mexico and Arizona" and "The North American species of *Chaetochloa*" contain one new name each for species known only from China. "The linear-leaved North American species of *Potamogeton*, section *Axillares*" contains the descriptions of two new species from China and Manchuria and "Recent discoveries in the Newfoundland flora" contains a new name for a strictly Japanese variety of *Calamagrostis*. Perhaps the least suspected title of this type that we examined was "The London clay flora" a palaeobotanical work published in 1933. In it we find the eastern Asiatic genus *Platycarya* reduced to *Petrophiloides* with a new binomial *Petrophiloides strobilacea* (Sieb. & Zucc.) Reid & Chandler (*Platycarya strobilacea* Sieb. & Zucc.) for a common Chinese tree. "The mosses and hepaticae collected in Central Africa by the late Right Rev. Hannington, Bishop of Mombasa, F. L. S., F. G. S., &c, with some others, including those gathered by M. H. H. Johnston on Mount Kilimanjaro" seems to be definite. Intrigued by the words "and some others" all entries were examined and we find included the original descriptions of new species from Japan, Borneo, Madagascar, Mauritius, Bourbon, Java, and South America. A semi-entomological title "Ants in their diverse relations to the plant world" published in "Ants of the American Museum Congo expedition" (and certainly from the latter title one would not expect to find references to eastern Asiatic plants) includes data on *Cordyceps japonensis* from Japan. While we have scanned all individual entries in suspected titles, we have undoubtedly at times trusted too fully to titles as given, and doubtless may thus have overlooked

some papers which would qualify for inclusion because they may contain references to one or a few species from the vast area we have attempted to cover.

Occasionally one notes an author, or editor, who is apparently not sure of his title, or perhaps one who is not interested in consistency. An example of this type is "Un gaillet méconnu de la flore Chinoise." This is the actual title, but in the table of contents it appears as "Un nouvelle Rubiacée Chinoise, *Galium Hemsleyanum* Beauverd," and on page 266 of the volume it appears again as "Un nouvelle Rubiacée Chinoise."

With the difficulties of a bibliographer in mind, fully realizing our own short-comings—for neither author was formally trained in bibliographic procedure—and with practically every language of Europe involved as well as many thousands of entries translated from the Chinese and Japanese—and neither author poses as a philologist—we crave the indulgence of those who detect errors and omissions. Our objective has been to be as accurate and as inclusive as possible within our own limitations and the limitations of the library resources of the institutions in which the major part of the work was done. Our hope is that the work will be a real aid to that wide group of botanists interested in the study of the rich and varied flora of eastern Asia, for after all a botanical bibliography is merely a tool to be used by working botanists.

The primary use of the bibliography is to aid students and investigators dealing with eastern Asiatic plants to discover what has been written on their special subjects, and to direct them to such works. In other words, it has been prepared for the use of botanists. It is well known that a vast amount of effort is needlessly expended by investigators and research workers in duplicating work already accomplished elsewhere, because through inadequate guides to the literature they are unaware of what has been done by others. It is hoped that this work will materially aid biographers in their tasks of seeking information on various workers and their publications in the field of eastern Asiatic botany. With this end in view many biographical sketches of at least the more important botanists who have worked extensively on the eastern Asiatic flora have been included.

The source literature in botanical bibliography is very great. Besides the various review journals to which reference has been made, certain outstanding publications deserve mention. Pritzels "Thesaurus"<sup>2</sup> is the best known and most exhaustive work of its type, being remarkably complete and accurate for the independent works published previous to 1872. This is supplemented by Jackson's "Guide."<sup>3</sup> The extensive

<sup>2</sup> See Pritzel, G. A., 1847-51, p. 396.

<sup>3</sup> See Jackson, B. D., 1881, p. 215.

"Catalogue of Scientific Papers" (1800-1900) compiled by the Royal Society of London, and its successor, the "International Catalogue of Scientific Literature" (1901-1914) cover the periodical literature for over a century. The "Bradley Bibliography," 5 volumes, published by the Arnold Arboretum (1911-18) is remarkably complete for the literature on the woody plants of the world up to 1900. The one bibliographic work devoted in part to the area covered by this bibliography is that of Komarov,<sup>4</sup> but it does not go into detail on the shorter papers in periodical literature. As contrasted to the present work, which contains in excess of 21,000 author entries, Komarov's work of 1928 contains but 1,226. Certain published library catalogues are very useful, notably those of the Arnold Arboretum, the British Museum (Natural History), and the Royal Botanic Gardens, Kew. Of card catalogues the outstanding ones are the Union Catalogue issued by the Library of Congress and the author-subject catalogues of certain of the larger libraries, notably the United States Department of Agriculture and the New York Botanical Garden. For references to the published illustrations of plants the older work of Pritzel<sup>5</sup> and its greatly amplified modern counterpart, the "Index Londinensis,"<sup>6</sup> cover the field.

Only very limited funds have been available to the authors during the preparation of this bibliography. Small grants were received from the Smithsonian Institution, from the Joseph Henry Fund, National Academy of Sciences, from the Elizabeth Thompson Fund, with some contributions from the authors themselves. These sums have been used largely for essential translation services covering the Chinese, Japanese, and some Russian literature. Although only these limited funds were available, it has been possible to compile data, to type the manuscript, and to check the references through the extensive assistance received through the several relief agencies in New York City. Without this assistance granted through the New York Botanical Garden, and without the services of the numerous workers who have loyally devoted themselves to the task, the project could not have been brought to com-

pletion in any reasonable time. To the original Emergency Work Bureau of New York, financed for several years by private funds, and to its succeeding organizations, the Federal Civil Works Administration, the Works Progress Administration, and the Emergency Relief Bureau of the Department of Public Welfare of New York City we are indebted for the assistance granted to the New York Botanical Garden. Additional aid was also received in Washington through the Civil Works Administration, and the Works Progress Administration. The services of many of the individuals assigned to this enterprise have been utilized not only in the more or less routine phases of the project, but also in critical editorial work, in the checking of the typed entries on the original papers, in the actual examination of much literature, especially that in the Slavic languages, and in proof reading. This work has been done largely in the library of the New York Botanical Garden. In the group of employees assigned to that institution we wish particularly to express our appreciation to Mr. V. C. Asmous for his consistently efficient library work on this project. Acknowledgment to the institutions and the anonymous friend of Harvard University that provided the funds that made publication of this large work possible is made in the Preface. We wish also to express our appreciation to the Harvard-Yenching Institute for another favor granted by courteously loaning to The Lord Baltimore Press the Chinese and Japanese type necessary for the composition of the appendices wherein it was essential that characters be used.

Probably more original entries have been prepared in the library of the United States Department of Agriculture than in any other institution. To the staff of that organization we are indebted for the extensive and invaluable aid always courteously extended. We are also indebted to the staffs of the Library of Congress, United States National Museum, Smithsonian Institution, New York Botanical Garden, Arnold Arboretum, American Geographical Society, American Museum of Natural History, New York Public Library, and Columbia University Library. Librarians of other institutions in the United States as well as in Canada, England, France, Germany, Austria, Japan, and China have also generously responded to inquiries concerning works not available to us.

<sup>4</sup> See Komarov, V. L., 1928a, p. 245.

<sup>5</sup> See Pritzel, G. A., 1855, p. 306.

<sup>6</sup> See Stapf, O., 1929-31, p. 469.



## REFERENCE LIST OF SERIAL ABBREVIATIONS

### A

**Abh. Akad. Nützl. Wiss. Erfurt.** Abhandlungen der Kurfürstlich mainzischen Akademie nützlicher Wissenschaften zu Erfurt. Nova acta Academiae electoralis Moguntinae scientiarum utilium quae Erfurti est.

**Abh. Akad. Wiss. Berlin.** Abhandlungen der Königlich preussischen Akademie der Wissenschaften zu Berlin.

The title varies. Previous to 1907 several sections were issued in each volume, the botany in the *Physikalische Abhandlungen* or *Physikalische Klasse*. Beginning with 1908 the sections were published separately.

**Abh. Akad. Wiss. Berlin, Phys.** See *Abh. Akad. Wiss. Berlin*.

**Abh. Bayer. Akad. Wiss. Math.-Phys.** Abhandlungen der Mathematisch-physikalischen Classe der Königlich bayerischen Akademie der Wissenschaften. München.

The abbreviation *Abh. Akad. Wiss. München* is often used.

**Abh. Boehm. Ges. Wiss.** Abhandlungen der Böhmischen Gesellschaft der Wissenschaften.

Vols. 1(1775) to 6(1784) were issued under the title: *Abhandlungen einer Privatgesellschaft in Böhmen*. Beginning in 1790 three numbered volumes were issued as: *Neuere Abhandlungen*.

**Abh. Naturf. Ges. Halle.** Abhandlungen der Naturforschenden Gesellschaft zu Halle.

**Abh. Naturw. Ver. Bremen.** Abhandlungen. Naturwissenschaftlicher Verein zu Bremen.

**Abh. Naturw. Ver. Hamburg.** Abhandlungen aus dem Gebiete der Naturwissenschaften, herausgegeben von dem Naturwissenschaftlichen Verein in Hamburg.

**Abh. Preuss. Akad. Wiss.** See *Abh. Akad. Wiss. Berlin*.

**Abh. Preuss. Akad. Wiss. Phys.-Math.** See *Abh. Akad. Wiss. Berlin*.

**Abh. Schles. Ges. Vaterl. Cult.** Abhandlungen. Schlesische Gesellschaft für vaterländische Cultur. Breslau.

**Abh. Senkenb. Ges. Frankfurt.** Abhandlungen, herausgegeben von der Senkenbergischen naturforschenden Gesellschaft, Frankfurt a. M.

This serial is sometimes cited as *Mem. Soc. Cur. Nat. Francfort*.

**Abstr. Doct. Diss. Ohio State Univ.** Abstracts of doctors' dissertations. Ohio State University.

**Abstr. Fifth Internat. Bot. Congr. Cambridge.** Abstracts of communications, Fifth international botanical congress, Cambridge.

**Act. Acad. Sci. Petrop.** Acta Academiae scientiarum imperialis Petropolitanae.

This is [ser. III] of *Mém. Acad. Sci. St. Pétersb.*

**Act. Bot. Bohemica.** Acta botanica Bohemica.

**Act. Congr. Internat. Bot. Bruxelles, 1910.** Actes du III<sup>e</sup> Congrès international de botanique, Bruxelles, 1910.

Vol. 1 contains: *Comptes-rendus des séances, excursions, etc.*; vol. 2 contains: *Conférences et mémoires*.

**Act. Congr. Internat. Bot. Hort. Amsterdam, 1877.** Actes du Congrès international de botanistes, d'horticulteurs, de négociants et de fabricants de produits du règne végétal, tenu à Amsterdam, en 1877.

**Act. Faun. Fl. Univ. II, Bot.** Acta pro fauna et flora universali. Bucharest. *Seria 2. Botanica*.

**Act. Fl. Ross.** Acta florum Rossicae. *Věstník Russkoj Flory*.

**Act. For. Fenn.** Acta forestalia Fennica. Helsinki.

**Act. Hort. Berg.** Acta Horti Bergiani. Meddelanden från Kungl. Svenska Vetenskaps-Akademiens Trädgård Bergielund. Stockholm; Upsala.

**Act. Hort. Bot. Acad. Sci. U.R.S.S.** See *Act. Hort. Petrop.*

**Act. Hort. Bot. Univ. Jurjev.** Acta Horti botanici Universitatis imperialis Jurjevensis. *Jur'ev* (Dorpat, Tartu).

This publication was succeeded by: *Acta Instituti et Horti Botanici Universitatis Tartuens (Dorpatensis)*, beginning in 1926.

**Act. Hort. Bot. Univ. Latviensis.** Acta Horti botanici Universitatis Latviensis. Riga.

**Act. Hort. Gothob.** Acta Horti Gothoburgensis. Meddelanden från Göteborgs Botaniska Trädgård.

**Act. Hort. Petrop.** Acta Horti Petropolitani. *Trudy Imperatorskago S.-Peterburgskago Botanicheskago Sada*.

Beginning with vol. 34 the Russian title became: *Trudy Glavnogo Botanicheskogo Sada*. Vol. 42, Fasc. 2 ("1931"), vol. 43, fasc. 2 ("1931"), and vol. 44 ("1931") were published as: *Acta horti botanici Acad. Scient. (ante Petropolitani)*. *Trudy Botanicheskogo Sada Akademii Nauk S.S.S.R.* For continuation see next entry.

**Act. Inst. Bot. Acad. Sci. U.S.S.R.** Acta Instituti botanici Academiae scientiarum Unionis Rerum Publicarum Sovieticarum Socialisticarum. *Trudy Botanicheskogo Instituta Akademii Nauk S.S.S.R.*

This serial is issued in series as follows: Ser. 1, *Plantae cryptogamae*; Ser. 2, *Flora et systematica: plantae vasculares*; Ser. 3, *Geobotany*; Ser. 4, *Experimental botany*. This is a continuation of *Act. Hort. Petrop. and Trav. Mus. Bot. Acad. Sci. U.S.S.R.*

**Act. Inst. Hort. Bot. Univ. Tartuens.** Acta Instituti et horti Universitatis Tartuens (Dorpatensis). Tartu (*Jur'ev*, Dorpat).

See note under *Act. Hort. Bot. Univ. Jurjev*.

**Act. Med. Philos. Hafniensis.** Acta medica et philosophica Hafniensis.

**Act. Phys. Med. Caes. Nat. Cur.** Acta physico-medica Academiae Caesareae Leopoldino-Carolinae naturae curiosorum exhibentia. Ephemerides.

A continuation of *Misc. Act. Caes. Nat. Cur. Dec. [ ] Ann. [ ]*.

**Act. Phytotax. Geobot.** Acta phytotaxonomica et geobotanica. Kyoto. See appendix, p. 570, col. 1.

**Act. Soc. Bot. Polon.** Acta Societatis botanicorum Poloniae. Organ Polskiego Towarzystwa Botanicznego Warszawa. Publication de la Société botanique de Pologne.

**Act. Soc. Faun. Fl. Fenn.** Acta Societatis pro fauna et flora Fennica. Helsingforsiae.

This publication is not the same as *Societas pro Fauna et Flora Fennica: Acta Botanica Fennica. Helsingforsiae*, begun in 1925.

**Act. Soc. Linn. Bordeaux.** Actes de la Société Linnéenne de Bordeaux.

Vols. 1(1826) to 3(1829) were issued under the title: *Bulletin d'histoire naturelle de la Société Linnéenne de Bordeaux*.

**Act. Soc. Philol.** Actes de la Société philologique. Paris.

**Act. Soc. Sci. Fenn.** Acta Societatis scientiarum Fennicae. Helsingfors.

**Act. Soc. Sci. Neerl.** Acta Societatis regiae scientiarum Indo-Neerlandicae. Verhandelingen der Natuurkundige vereeniging in Nederlandsch Indie. Batavia.

**Act. Soc. Sci. Upsal.** Acta Societatis regiae scientiarum Upsaliensis. Stockholm.

For continuation see *Nov. Act. Soc. Sci. Upsal*.

**Act. Univ. Lund.** Acta Universitatis Lundensis. Lunds Universitets Årsskrift. Afdelningen för Matematik och Naturvetenskap. Lund.

Beginning with 1872 "vol." was added, starting vol. 9. Beginning with vol. 26(1889-90) a secondary title-page was added with the title: *Acta regiae Societatis Physiographicae Lundensis. Kongl. Fysiografiska Sällskapet i Lund Handlingar "Ny Följd. Band 1,"* but the serial volume numbers continue uninterrupted on the other title-page. Beginning in 1905 a new series was started, the first title-page being: *Acta Universitatis Lundensis, nova series. Lunds Universitets Årsskrift, Ny Följd. Andra Avdelningen Medicin samt Matematiska och Naturvetenskapliga Ämnen*.

- Adansonia.** *Adansonia*. Recueil périodique d'observations botaniques, rédigé par le docteur H. Baillon.  
Vol. 1(1800), without designation as such, was published under the title: Recueil d'observations botaniques.
- Addisonia.** *Addisonia*, colored illustrations and popular descriptions of plants. New York.
- [Agr. Bimonth. (Lingnan Univ.).]** [Agricultural bimonthly. Published by Lingnan university, Canton.] See appendix, p. 562, col. 2.  
Vols. 1(1924) to 4 were published as [Agricultural monthly].
- Agr. Bull. Malay Pen.**  
See next entry.
- Agr. Bull. Malay States.** Agricultural bulletin of the Straits and Federated Malay States. Singapore.  
Nos. 1(1891) to 9(1900) were issued under the title: Agricultural bulletin of the Malay Peninsula. Beginning with n. ser. vol. 1(1902) and continuing through ser. III, vol. 1, no. 5, the title was as above. Beginning with vol. 1, no. 6, the title became: The Gardens bulletin, Straits Settlements (the serial designation being discontinued).
- [Agr. & For. Quart.]** [Agricultural and forestry quarterly. Published by the alumni of the College of Agriculture, Kwantung.] See appendix, p. 562, col. 2.  
This college became a part of Sun Yat-sen University.
- [Agr. & Hort. (Japan).]** [Agriculture and horticulture.] *Nogyo oyobi Engei*. See appendix, p. 570, col. 2.
- Agr. Inf. (Sun Yat-sen Univ.).** Agricultural information. College of agriculture, Sun Yat-sen university. Nung sheng.  
Only "nos. 173 & 174, 1934, the second special issue in entomology edited by the Entomological research club, College of agriculture, Sun Yat-sen university," have been seen. See appendix, p. 567, col. 2.
- Agr. Journ. Dept. Agr. Rep. China.** Agricultural journal. Department of agriculture and forestry. Republic of China. See appendix, p. 562, col. 2.
- [Agr. Journ. (Nat. Centr. Univ.).]** [Agricultural journal. National central university, Nanking.] [Edited by the College of Agriculture.]  
In Chinese. See *Agricultural Research* in appendix, p. 563, col. 1.
- Agr. Mag. [Peking].** The Agricultural magazine. [National Peking agricultural college]. See appendix, p. 562, col. 2.
- Agr. Prat. Pays Chauds.** L'Agriculture pratique des pays chauds. Paris.
- Agr. Res. (Japan).** Agricultural research. See appendix, p. 570, col. 1.
- Agr. Res. [Nanking].** The Agricultural research. Semi-annual publication. Edited by the College of agriculture, National central university, Nanking.  
Vol. 1(1933-34) was issued with Chinese title only. See appendix, p. 563, col. 1.
- Agr. Sci.** Agricultural science. Lun Shu. Published by National southeastern university, Nanking. See appendix, p. 563, col. 1.
- Agr. Sinica.** *Agricultura Sinica*. Contributions from the National agricultural research bureau, Ministry of industries. Nanking, China. See appendix, p. 562, col. 1.
- Agricultura (Univ. Kiangsu).** *Agricultura*. Published by College of agriculture, University of Kiangsu. See appendix, p. 562, col. 1.  
A continuation of *Agr. Sci.*
- Agron. Colon.** L'Agronomie coloniale. Bulletin mensuel de l'Institut national d'agronomie de la France d'outre-mer. Paris.
- Agros.** *Agros*. Boletim da Associação dos estudantes do Instituto superior de agronomia. Lisboa, Portugal.  
The subtitle varies.
- Akklimatiz. (Moscow).** *Akklimatizatsiia*. Published monthly by the Acclimatization committee, Moscow.  
This serial has not been seen.
- Allg. Bot. Zeitschr.** Allgemeine botanische Zeitschrift für Systematik, Floristik, Pflanzengeographie. Karlsruhe.
- Allg. Deutsch. Gart. Mag.** Allgemeines deutsches Garten-Magazin.
- Allg. Deutsch. Gart. Zeit.** Allgemeine deutsche Gartenzeitung. Regensburg & Passau.
- Allg. Gartenz.** See *Berl. Allg. Gartenz.*
- Altaiak. Sborn.** *Altaiakii Sbornik*. [Altai repository.]
- Alumni Assoc. Uyeda Coll. Seric. & Silk Ind.**  
This serial has not been seen.
- Amer. Drugg.** American druggist and pharmaceutical record. New York.
- Amer. Fern Journ.** American fern journal.
- Amer. For.** American forests. Washington.  
Originally published under the title: American forestry. Later the title became: American forests and forest life.
- Amer. For. & For. Life.**  
See preceding entry.
- Amer. Gard.** The American garden. An illustrated journal of horticulture. New York.
- Amer. Journ. Bot.** American journal of botany.
- Amer. Journ. Sci.** American journal of science and arts.
- Amer. Microsc. Journ.** American monthly microscopical journal.
- Amer. Midl. Nat.** American midland naturalist.
- Amer. Mus. Novit.** American museum novitates. New York.
- Amer. Nat.** The American naturalist, an illustrated magazine of natural history. Philadelphia.
- Amer. Rose Ann.** The American rose annual.
- Amoeba.** *Amoeba*. Bulletin of the Biological club of Nippon. Tokyo. See appendix, p. 571, col. 1.
- Ampelogr. Bericht.** *Ampelographische Berichte*.  
This periodical has not been seen.
- Anal. Mus. Nac. Buenos Aires.** *Anales del Museo nacional de historia natural Bernardino Rivadavia*, Buenos Aires.
- Andr. Bot. Repos.** The Botanists' repository, for new and rare plants. . . . By Henry C. Andrews. London.  
See Andrews, H., 1797-1812, p. 7.
- Angew. Bot.** *Angewandte Botanik*; *Zeitschrift der Vereinigung für angewandte Botanik*. Berlin.
- Anim. Syst. Herb. Univ. Tomsk.** *Animadversiones systematicae ex herbario Universitatis Tomakensis. Sistematische Zametki po Materialam Gerbariia Tomakogo Universiteta*. Tomsk.
- Ann. Acad. Reims.** *Annales de l'Académie nationale de Reims*.  
Continued as: *Séances et travaux*; later as: *Travaux*.
- Ann. Agr. Exp. Sta. Chosen.** *Annals of the Agricultural experiment station, government-general of Chosen*. Suigen, Chosen. See appendix, p. 571, col. 1.
- Ann. Agron.** *Annales agronomiques*. Paris.
- Ann. Assoc. Prop. Foi.** See *Ann. Prop. Foi.*
- Ann. Bot.** *Annals of botany*. London.
- Ann. Bot. Gard. Calcutta.** *Annals of the Royal botanic garden*. Calcutta.
- Ann. Bot. Gard. Peradeniya.** *Annals of the Royal botanic gardens, Peradeniya*. Department of agriculture, Ceylon.
- Ann. Bot. Kön. & Sims.** *Annals of botany*; editors, König and Sims. London.  
Only 2 volumes (1805 and 1806) were published.
- Ann. Bot. Soc. Zool.-Bot. Fenn. Vanamo.** *Annales Botanici societatis zoologicae-botanicae Fennicae Vanamo. Suomalaisen Eläin-ja Kasvitieteellisen Seuran Vanamon Kasvitieteellisiä Julkaisuja*.
- Ann. Bot. Usteri.** *Annalen der Botanik*. Herausgegeben von Dr. Paulus Usteri. Zürich & Leipzig.  
Neue Ann. Bot. Usteri commences with 1794, but these volumes also carry the title "Annalen der Botanik." Hence the abbreviation Neu. Ann. Bot. Usteri is not used in this bibliography.
- Ann. Bryol.** *Annales bryologici*. A yearbook devoted to the study of mosses and hepatics. The Hague.
- Ann. Bryol. Suppl. Vol.** *Annales bryologici*. A yearbook devoted to the study of mosses and hepatics. Supplementary volume.
- Ann. Carnegie Mus.** *Annals of the Carnegie museum*, Pittsburgh.

- Ann. Cons. Jard. Genève.** Annuaire du Conservatoire et du Jardin botanique de Genève.  
Replaced in 1924 by Candollea.
- Ann. Crypt. Exot.** Annales de cryptogamie exotique. Paris.
- Ann. di Bot.** Annali di botanica. Pubblicati del Prof. Romualdo Pirotta. Roma & Torino.
- Ann. Écol. Nat. Agr. Montpel.** Annales de l'École nationale d'agriculture de Montpellier. France.
- Ann. Épiph.** Annales des épiphyties. Publiées par l'Institut des recherches agronomiques. Paris.  
Vols. 1(1912) to 6(1919) were published as: Annales du service des épiphytes.
- Ann. Erd. Völk. Staatenk.** Annalen der Erd-, Völker-, und Staatenkunde. Berlin.  
The title varies.
- Ann. Fl. Pom.** Annales de flore et de pomone; ou Journal des jardins et des champs. Paris.
- Ann. Forest. (Paris).** Annales forestières. Paris.
- Ann. Franco-Chin.** Annales Franco-Chinoises, publiées par l'Institut Franco-Chinois de l'Université de Lyon. Li ang chung fa ta hsiao chi k'an.
- Ann. Géogr.** Annales de géographie. Paris.
- Ann. Hort. Bot.** Annales d'horticulture et de botanique; ou Flore des jardins du Royaume des Pays-Bas. Leide.
- Ann. Inst. Agron. Moscou.** Annales de l'Institut agronomique de Moscou. Izvestiia Sel'skokhoziaistvennago Instituta.
- Ann. Inst. Colon. Marseille.** See Ann. Mus. Colon. Marseille.
- Ann. Inst. Hort. Fromont.** Annales de l'Institut horticole de Fromont. Paris.
- Ann. Inst. Nat. Agron.** Annales de l'Institut national agronomique. Paris.
- Ann. Inst. Océanogr.** Annales de l'Institut océanographique. Paris.
- Ann. Jard. Bot. Buitenzorg.** Annales du Jardin botanique de Buitenzorg. Java.
- Ann. Jard. Bot. Nikita.** Annales du Jardin botanique de Nikita.  
See also Zap. Gos. Nikit. Sad., and Journ. Bot. Gard. Nikita.
- Ann. Mag. Nat. Hist.** The Annals and magazine of natural history. London.  
Vols. 1(1838) to 5(1840) were issued under the title: Annals of natural history.
- Ann. Missouri Bot. Gard.** Annals of the Missouri botanical garden. St. Louis.
- Ann. Mus. Bot. Lugd.-Bat.** See Miquel, F. A. W., 1863-69, p. 324.
- Ann. Mus. Colon. Marseille.** Annales du Musée colonial de Marseille.  
Vol. 1 to ser. 11, vol. 4(1906) were published under the title: Annales de l'Institut colonial de Marseille.
- Ann. Mus. Firenze.** Annali del Museo Imperiale e Reale di fisica e storia naturale di Firenze.
- Ann. Mus. Hist. Nat. (Paris).** Annales du Muséum d'histoire naturelle. Paris.
- Ann. Mus. Nat. Hungar.** Annales historico-naturales Musei nationalis Hungarici. Budapest.
- Ann. Mus. Zool. Russ. Acad. Sci.** Annuaire du Musée zoologique de l'Académie impériale des sciences de St. Pétersbourg. Ezhegodnik Zoologicheskago Muzeya Imperatorskoï Akademii Nauk. St. Pétersbourg.
- Ann. Mycol.** Annales mycologiques. Berlin.
- Ann. N. Y. Acad. Sci.** Annals of the New York academy of science.
- Ann. Nat. Hist.** See Ann. Mag. Nat. Hist.
- Ann. Naturhist. Hofmus. (Wien).** See Ann. Naturhist. Mus. Wien.
- Ann. Naturhist. Mus. Wien.** Annalen des K. K. Naturhistorischen Museums in Wien.  
Vols. 1(1836) to 32 were published under the title: Annalen des K. K. Naturhistorischen Hofmuseums.
- Ann. Philos. Chrét.** Annales de philosophie chrétienne. Paris.
- Ann. Phytopath. Soc. Japan.** Annals of the Phytopathological society of Japan. Nishigahara & Tokyo. See appendix, p. 576, col. 1.
- Ann. Prop. Foi.** Annales de la propagation de la foi. Lyon.  
Published also in other languages and in other places. The title varies.
- Ann. Rep. Centr. Hygiene Exp. Sta.** [Annual report of the Central hygiene experiment station, report of investigations. (Nanking?).] Chung-yang wei-sheng shih-yen so nien pao. Yen tiao ch'a pao kao.  
This serial, mentioned in the bibliography in Tai, Fang-lan, 1936c, no. 160, has not been seen.
- Ann. Rep. Marine Biol. Assoc. China.** Marine biological association of China. Annual report. [Amoy.] Nanking. See appendix, p. 565, col. 2.
- Ann. Rep. Montreal Hort. Soc. [No. ].** Annual report of the Montreal horticultural society and fruit growers association of the Province of Quebec.
- Ann. Rep. Saito Ho-on Kai.** Annual report of the work of Saito Ho-on Kai. Sendai, Japan. See appendix, p. 576, col. 1.
- Ann. Rep. Smithsonian Inst.** Annual report of the Board of regents of the Smithsonian Institution. . . . Washington.
- Ann. Rep. Taihoku Bot. Gard.** Annual reports of the Taihoku botanic garden, Faculty of science and agriculture, Taihoku imperial University, Formosa, Japan. See appendix, p. 572, col. 1.
- Ann. Sci. Nat.** Annales des sciences naturelles. Paris.  
Beginning with sér. II, vol. 1(1834), botanical and zoological series were established.
- Ann. Sci. Nat. II. Bot.** See preceding entry.
- Ann. Sci. Phys.** Annales générales des sciences physiques, par M. M. Bory de St. Vincent . . . Drapiez . . . et Van Mons. Bruxelles.
- Ann. Serv. Bot. Tunisie.** Annales du service botanique . . . de Tunisie.
- Ann. Soc. Agr. Bot. Gand.** Annales de la Société royale d'agriculture et de botanique de Gand. Journal d'horticulture et des sciences accessoires, Gand.
- Ann. Soc. Centr. Hort. France.** See Ann. Soc. Hort. Paris Centr. France.
- Ann. Soc. Hort. Girond.** Annales de la Société d'horticulture de la Gironde. Bordeaux.
- Ann. Soc. Hort. Paris.** See next entry.
- Ann. Soc. Hort. Paris Centr. France.** Annales de la Société impériale d'horticulture de Paris et centrale de France, journal spécial de l'état et des progrès du jardinage. Paris.  
Vols. 1(1827) to 16(1835) were published under the title: Annales de la Société d'horticulture de Paris, et journal spécial de l'état et des progrès du jardinage. From vols. 16(1835) to 39(1848) the title was: . . . Société royale d'horticulture. . . From vols. 40(1849) to 42(1851) the title was: Annales de la Société centrale d'horticulture de France, journal spécial. . . In vol. 43(1853) the title was: Annales de la Société d'horticulture de Paris et centrale de France, journal spécial. . . For continuation see Journ. Soc. Nat. Hort. France.
- [Ann. Soc. Hort. Pays-Bas.]**  
This abbreviation, used in Index Kewensis, is apparently a translation of Jaarb. Nederl. Maatsch. Tuinbouw. The French title is not used in this bibliography.
- Ann. Soc. Linn. Lyon.** Annales de la Société Linnéenne de Lyon.
- Ann. Soc. Linn. Maine-Loire.** Annales de la Société Linnéenne du Département de Maine-et-Loire.
- Ann. Soc. Sci. Brux. Sér. B.** Annales de la Société scientifique de Bruxelles. Série B.
- Annot. Zool. Japon.** Annotationes zoologicae Japonenses. Tokyo. See appendix, p. 571, col. 1.
- Anzeig. Akad. Wiss. Wien Math.-Naturw. Kl.** Anzeiger Akademie der Wissenschaften in Wien, Mathematisch-naturwissenschaftliche Klasse.
- Appalachia.** Appalachia. Published by the Appalachian mountain club. Boston.
- [Arch. Biol. Sungar. Sta.]** See Trudy Sungar. Rechn. Biol. Sta.

- Arb. Bot. Gart. Breslau.** Arbeiten aus dem Königl. Botanischen Garten zu Breslau.
- Arb. Bot. Inst. Akad. Braunsb.** Arbeiten aus dem Botanischen Institut der Kgl. Akademie . . . in Braunsberg, Ostpreussen.  
See also Verz. Vorles. Akad. Braunsb.
- Arb. Bot. Inst. Prag.** Arbeiten des Botanischen Instituts der K. K. Deutschen Universität in Prag.
- Arb. Naturf. Ver. Riga.** Arbeiten des Naturforscher Vereins zu Riga.
- Arb. Tomsk. Univ.** Arbeiten Tomsker Staats Universität. Trudy Tomskogo Gosudarstvennogo Universiteta.  
Vol. 86 of Trans. Tomsk. Univ. bears this title.
- Arch. Bot. (Caen) Bull.** Archives de botanique, publiées par René Viguier . . . Tome . . . Bulletin mensuel no. . . Caen.  
At the top of the first page of each number is the title: Bulletin mensuel: supplément aux Archives de botanique publiées par René Viguier.
- Arch. Bot. (Caen) Mém.** [ J. Archives de botanique, publiées par René Viguier . . . Tome . . . Mémoires.
- Arch. Bot. Guillemin.** Archives de botanique ou recueil mensuel de mémoires originaux, . . . rédigés par une Société de botanistes Français et étrangers, sous la direction de M. A.-J. Guillemin. Paris.
- Arch. Bot. Roemer.** Archiv für die Botanik. Herausgegeben von J. J. Roemer. Leipzig.
- Arch. Hydrobiol.** Archiv für Hydrobiologie und Planktonkunde. Berlin.
- Arch. Mus. Hist. Nat. (Paris).** Archives du Muséum d'histoire naturelle. Paris.  
For continuation see Nouv. Arch. Mus. Hist. Nat. (Paris). Beginning with ser. VI, vol. 1, the original name, Archives du Muséum d'histoire naturelle, Paris, was restored.
- Arch. Naturg.** Archiv für Naturgeschichte. In Verbindung mit mehreren Gelehrten, herausgegeben von Dr. Ar. Fr. Aug. Wiegmann.
- Arch. Neerl.** Archives Néerlandaises des sciences exactes et naturelles.
- Arch. Pharm.** Archives de pharmacie, recueil pratique. Paris.
- Arch. Pharm. Bericht. Deutsch. Pharm. Ges.** Archiv der Pharmazie und Berichte der deutschen pharmazeutischen Gesellschaft. Berlin.
- Arch. Pharm. (Berlin).** Archiv der Pharmazie, Zeitschrift des deutschen Apotheker-Vereins.
- Arch. Protistenk.** Archiv für Protistenkunde. Jena.
- Arch. Russ. Protist.** Archives Russes de protistologie. Russkii Arkhiv Protistologii. Moskva.  
Published first as: Archives de la Société de protistologie. Arkhiv Russkago Protistologicheskogo Obchestva. The title changed with vol. 3.
- Arch. Sci. Phys. Nat.** Bibliothèque universelle. Archives des sciences physiques et naturelles. Genève.
- Arch. Wiss. Kunde Russland.** Archiv für wissenschaftliche Kunde von Russland. Herausgegeben von A. Erman.  
This serial is often referred to as Erman's Archiv.
- Arkiv för Bot.** Arkiv för Botanik. Utgivet av K. Svenska Vetenskapsakademien. Stockholm.
- Asiat. Res.** Asiatic researches; or, Transactions of the society instituted in Bengal, for enquiring into the history, the antiquities, the arts and sciences, and literature of Asia.  
Succeeded by Journ. Asiat. Soc. Bengal.
- Athenaeum (London).** Athenaeum; a journal of literature, science, the fine arts, music, and the drama. London.
- Att. Accad. Fisiocrit. Siena.** Atti della R. Accademia dei fisiocritici in Siena.  
Title varies in earlier series.
- Att. Accad. Lincei Ser. [ ] Rend. Sci. Mat. Nat.** Atti della Reale Accademia dei Lincei [annol. [Serie] Rendiconti: Classe di scienze fisiche matematiche e naturali. Roma.
- Att. Accad. Sci. Sez. Borb. (Napoli).** Atti della Reale Accademia delle scienze, sezione della Società Reale Borbonica. Napoli.
- Att. Accad. Sci. Torino.** Atti della Reale Accademia delle scienze di Torino.

- Att. Congr. Bot. Internat. Genova.** Atti del Congresso botanico internazionale di Genova 1892 (1893).
- Att. Congr. Internas. Bot. Firenze, 1874.** Atti del Congresso internazionale botanico tenuto in Firenze nel mese di Maggio 1874.
- Att. Ist. Bot. Univ. Pavia.** Atti dell'Istituto botanico della Università di Pavia.
- Att. Ist. Incor. Napoli.** Atti del Reale Istituto d'incoraggiamento di Napoli.
- Att. Ist. Veneto.** Atti del Reale Istituto Veneto di scienze, lettere ed arti. Venezia.
- Att. Soc. Crittogam. Ital.** Atti della Società crittogamica italiana. Milano.
- Att. Soc. Toscana Sci. Nat. Mem.** Atti della Società Toscana di scienze naturali residente in Pisa. Memorie.

## B

- Babyl. & Orient. Rec.** The Babylonian & Oriental record; a monthly magazine of the antiquities of the East. London.
- Bambou.** Le Bambou, son étude, sa culture, son emploi. Bulletin périodique, vade-mecum et intermédiaire de tous les amis des bambous. . . Fondateur, Jean Houzeau de Lehaie. Mons, Belgique.
- Beih. Bot. Centralbl.** Beiheft zum Botanischen Centralblatt. Dresden.  
This periodical is published in several "Abteilungen," the "Systematik, Pflanzengeographie, angewandte Botanik, etc." in the "Zweite Abteilung." This is designated as "Abteilung B," beginning with vol. 52 (1934).
- Beitr. Biol. Pflanz.** Beiträge zur Biologie der Pflanzen; herausgegeben von Dr. Ferdinand Cohn. Breslau.  
This is frequently cited as "Cohn's Beiträge." Vol. 8 is edited by O. Brefeld; 9 to 13 by F. Rosen; 14 by F. Rosen & R. Schaede; 15 to 18 by R. Schaede & H. Winkler; 19 to 20 by H. Winkler. All bear the statement "Begründet von Professor Dr. Ferd. Cohn."
- Beitr. Kennntn. Russ. Reich.** Beiträge zur Kenntnis des russischen Reiches und der angrenzenden Länder Asiens . . . herausgegeben von K. E. v. Baer und Gr. v. Helmersen.
- Beitr. Pflanzenk. Russ. Reich.** Beiträge zur Pflanzenkunde des russischen Reiches. Herausgegeben von der Kaiserlichen Akademie der Wissenschaften. St. Petersburg. Materialy k Blizhaishemu Poznaniu Prosiabnemosti Rossiiskoi Imperii.
- Belg. Hort.** La Belgique horticole, journal des jardins, des serres et des vergers. Liège.
- Berg. Mus. Aarbok.** Bergens Museums Aarbok. Bergen, Norway.
- Bericht. Ges. Bot. Hamburg.** Berichte über die Sitzungen der Gesellschaft für Botanik zu Hamburg.
- Bericht. Math. Naturw. Ungarn.** Mathematische und naturwissenschaftliche Berichte aus Ungarn. Leipzig.
- Bericht. Ohara Inst. Landw. Forsch. Japan.** Berichte des Ohara Instituts für landwirtschaftliche Forschungen in Kuraschiki, Provinz Okayama, Japan. See appendix, p. 576, col. 1.
- Bericht. Schweiz. Bot. Ges.** Berichte der Schweizerischen botanischen Gesellschaft. Basel.  
At the top of each title-page in smaller print is the title: Bulletin de la Société botanique Suisse.
- Bericht. Thät. St. Gall. Naturw. Ges.** Bericht über die Thätigkeit der St. Gallischen naturwissenschaftlichen Gesellschaft.
- Bericht. Verh. Akad. Wiss. Berlin.** Berichte über die zur Bekanntmachung geeigneten Verhandlungen der Königl.-preuss. Akademie der Wissenschaften zu Berlin.  
In 1856 the title became: Monatsberichte der Königlichen preuss. Akademie der Wissenschaften zu Berlin.
- Berl. Allg. Gartenz.** Berliner allgemeine Gartenzeitung. Vols. 1 (1833) to 24 (1856) were issued under the title: Allgemeine Gartenzeitung.
- Besch. Ges. Naturf. Freund. Berlin.** Beschäftigungen der Berlinischen Gesellschaft naturforschender Freunde.
- Bibl. Bot.** Bibliotheca botanica. Stuttgart.
- Bibl. Genet.** Bibliographia genetica. The Hague.

## [Bibl. Univ.]

This abbreviation is not used in this bibliography. See Arch. Sci. Phys. Nat.

**Bibl. Univ. Genève.** See next entry.

**Bibl. Univ. Sci. Arts Genève.** Bibliothèque universelle des sciences, belles-lettres et arts, rédigée à Genève.

Some volumes were published under the title: Bibliothèque universelle de Genève.

**Bibliogr. Sborn. Bibl. Vest. Kit. Zhel. Der.** Bibliograficheskii Sbornik Biblioteki Vostochnoi Kitaiskoi Zheleznof Dorogi. [Bibliographical repository published by the library of the Chinese Eastern Railway in Harbin under the direction of Prof. N. Ustrilov].

A continuation of "Bibliograficheskii Biulleten." Vols. 1 and 2 have the subtitles: Obsor Literaturny po Kitaevdeniui [Review of the literature about China].

**Bih. Svensk. Vet. Akad. Handl. Bihang till Kongliga Svenska Vetenskaps-Akademiens Handlingar.** Stockholm.

**Biogeogr. Biogeographica.** Transactions of the Biogeographical society of Japan. See appendix, p. 571, col. 1.

**Biel. Arb. Til. Warming.** See [Warming, E.], 1911, p. 524.

**Biel. Medd. Dansk. Vid. Biologiske Meddelelser Kgl. Danske Videnskabernes Selskab.** København.

**Büll. Khabarovsk. Lesn. Pitomn. Bülleten' Khabarovskogo Lesnogo Pitomnika.** [Bulletin of the forest nursery of Khabarovsk.]

**Büll. Tikhook. Komit. Bülleten' Tikhookeanskogo Komiteta Akademii Nauk S.S.S.R.** [Bulletin of the Pacific committee of the Academy of Science, U.S.S.R.]

**Blumea. Blumea.** Tijdschrift voor de systematiek en de geografie der planten. (A journal of plant-taxonomy and plant-geography.) Leiden.

Succeeds Med. Rijks Herb. Leiden, beginning in 1934.

**Boissiera. Boissiera.** Mémoires du Conservatoire de botanique et de l'Institut de botanique systématique de l'Université de Genève.

**Bol. Soc. Broteriana.** Boletim annual: Sociedade Broteriana. Coimbra, Portugal.

Beginning with vol. 4(1886) the title was: Boletim da Sociedade Broteriana.

**Bol. Soc. Geogr. (Madrid).** Boletín: Real Sociedad geográfica. Madrid.

**Boll. Ort. Bot. Palermo.** Bollettino del R. Orto botanico di Palermo.

**Bonplandia. Bonplandia.** Zeitschrift für die gesamte Botanik. Hanover.

**Book. Ser. Chinese Gov't. Bur. Econ. Inf.** Looklet series no. [ ]. Chinese government bureau of economic information.

The various numbers of this serial were published by different bureaus. The first number, issued without date, was received in Washington in 1928. See appendix, p. 563, col. 1.

**Bot. Abh. Goebel.** Botanische Abhandlungen; herausgegeben von K. Goebel. . . Heft [no. ].

**Bot. Archiv Mez.** Botanisches Archiv; Zeitschrift für die gesamte Botanik; herausgegeben von Dr. Carl Mez.

**Bot. Centralbl.** Botanisches Centralblatt. Jena.

**Bot. Current Lit.** Botany current literature.

A mimeographed list of references comprising additions to the Botanical catalogue, Bureau of plant industry, compiled from publications received in the library of the United States department of agriculture, Washington, D. C. It was started in 1919 under the title, Current Author Entries and succeeded in 1935 by Pl. Sci. Lit.

**Bot. Exch. Club Brit. Isles.** The Botanical exchange club of the British Isles. Report for [ ].

Beginning with the report for 1906 the title became: The Botanical exchange club and society of the British Isles. The reports for 1879-1900 are paged continuously. The reports for 1901 and 1902 are paged continuously and designated as vol. 2. The pagination varies in the remaining reports.

**Bot. Gard.** The Botanic garden; consisting of highly finished representations of hardy ornamental plants, cultivated in Great Britain; with their names, classes, orders, history, qualities, culture and physiological observations. By B. Maund.

**Bot. Gaz.** The Botanical gazette. Chicago.

**Bot. Gaz. Henfrey.** The Botanical gazette; a journal of the progress of British botany and the contemporary literature of science. Edited by Arthur Henfrey. 1(1849)-3(1851).

**Bot.-Geogr. Sborn. "Rastit. S.S.S.R."** Botaniko-Geograficheskii Sbornik "Rastitel'nost' S.S.S.R." [Botanico-geographical repository "Vegetation of U.S.S.R."] Edited by B. A. Fedtschenko.

Probably only one volume (1925) has been published which has not been seen.

**Bot. Jahrb. Engler.** Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie. Herausgegeben von Adolph Engler. Leipzig.

For exact dates of publication of volumes 1-25 see Bot. Jahrb. Engler 26: Beibl. 61: 5-8. 1899.

**Bot. Jahrb. Engler** [vol. no. ] **Beibl.** [no. ]. Beiblatt zu den Botanischen Jahrbüchern.

This is a separately numbered and paged appendix to the Bot. Jahrb. Engler. Each bears the volume number to which it belongs. There may be several "Beiblätter" for each volume.

**Bot. Jahrb. Engler** [vol. no. ] **Lit.** Botanische Jahrbücher . . . Literaturbericht.

This is a separately paged, unnumbered section of each volume of Bot. Jahrb. Engler, consisting of reviews.

**Bot. Közlem.** Botanikai Közlemények. A Kir. Magyar Természettudományi Társulat Növénytani Szakosztályának Folyóirata. [Bulletin of the Botanical section of the Royal Hungarian natural science society.] Vols. 1(1902) to 7(1908) were published under the title: Növénytani Közlemények.

**Bot. Mag.** See Curtis's Bot. Mag.

This abbreviation, not used in this bibliography, is used by many botanists to refer to Curtis's Botanical Magazine.

**Bot. Mag. Roem. & Ust.**

A serial of 12 separately paged parts. The title page of each volume bears the title: Botanisches Magazin. The title on the parts and the fascicle covers reads: Magazin für die Botanik. Herausgegeben von Joh. Jacob Römer und Paulus Usteri.

**Bot. Mag. Tokyo.** The Botanical magazine. Published by the Tokyo botanical society.

Up to vol. 9, p. 186 all page numbers were in parentheses. From then on through vol. 39 parentheses are used only around page numbers of articles in Japanese, those in English being on pages numbered without parentheses. These are sometimes in one sequence, sometimes in separate sequences constituting two sets of pagination in one volume. Beginning with vol. 40 the double pagination was discontinued and the parentheses dropped. Beginning with vol. 46(1932) the name of the society is: The Botanical Society of Japan. For Japanese title see appendix, p. 571, col. 1. For corrections in vol. 20-24 see Matsuda, Sadahisa, 1911s, p. 305.

**Bot. Misc. Hook.** Botanical miscellany: containing figures and descriptions . . . by W. J. Hooker. London.

For data on dates of publication see Kew Bull. Misc. Inf. 1936: 85-95. 1936.

**Bot. Mus. Leaf. Harvard Univ.** Botanical museum leaflets. Harvard university.

**Bot. Not.** Botaniska Notiser. Lund. Sweden.

From 1849 to 1856 the title was: Nya Botaniska Notiser, after which the original title was resumed.

**Bot. Reg.** The Botanical register.

Beginning with vol. 15 this was published by John Lindley under the title: Edwards' botanical register. London. The subtitle varies. For dates of publication see Journ. Arn. Arb. 18: 183-184. 1937.

**Bot. Tidskr.** Botanisk Tidskrift. Kjøbenhavn.

[Bot. World.] [Botanical world.] Shokubutsu-Kai.

This serial has not been seen. See appendix, p. 571, col. 1.

**Bot. Zeit.** Botanische Zeitung. Berlin; Leipzig.

**Bot. Zeit. (Regensb.)** Botanische Zeitung.

Published by the K. Bayerische botanische Gesellschaft, Regensburg. 1(1802)-6(1807).

**Bot. Zhurn. S.S.S.R.** See Journ. Bot. U.R.S.S.

**Bot. & Zool. (Tokyo)** Botany and zoology; scientific (theoretical) and applied. Tokyo. See appendix, p. 571, col. 1.

**Botanist.** The Botanist; containing accurately coloured figures, of tender and hardy ornamental plants; with descriptions, scientific and popular; . . . Conducted by B. Maund, F. L. S. assisted by the Rev. J. S. Henslow, M. A., F. L. S., etc.

It is mostly written by Maund and Henslow, their contributions unsigned. Some parts were contributed by Graham, West, G. B., etc. It is not paged. Each "number" is accompanied by an unnumbered, colored plate.

[Brande's Journ.]

This abbreviation is not used in this bibliography. It is often used to refer to Quart. Journ. Sci. Lit. Arts (London).

**Brit. Fern Gaz.** The British Fern gazette. London.

**Brittonia.** Brittonia; a series of botanical papers. Published by the New York Botanical garden. 1(1831).

**Brooklyn Bot. Gard. Rec.** Brooklyn botanic garden record.

**Broteria.** Broteria; revista de ciencias naturales do collegio de S. Fiel. S. Fiel, and elsewhere.

Beginning with vol. 6(1906) is "II Parte, Serie botanica." From vol. 9(1910), fasc. 3 to vol. 10, the title ends with "naturae." Beginning with vol. 11(1913), the title became "Broteria, revista Luso-Brasileira." It was published in various places from time to time.

**Bryologist.** The Bryologist. Pittsburgh.

**Bul. Fac. Sti. Cernăuți.** Buletinul facultății de științe din Cernăuți. [Bulletin of the Faculty of science of Cernăuți [Czernowita] (Rumania).]

**Bull. Acad. Belg. Cl. Sci.** Bulletin de la Classe des sciences. Académie royale de Belgique. Bruxelles.

This title appears on ser. IV and V of Bull. Acad. Sci. Brux.

\* **Bull. Acad. Internat. Géogr.** See Bull. Acad. Sci. Brux.

**Bull. Acad. Roy. Belg.** See Bull. Acad. Sci. Brux.

✓ **Bull. Acad. Sci. Brux.** Bulletin de l'Académie royale des sciences et belles-lettres de Bruxelles.

Later volumes were published under the title: Bulletin de l'Académie royale des sciences, des lettres et des beaux-arts de Belgique. Other minor changes of title occur. For ser. IV and V see Bull. Acad. Belg. Cl. Sci.

**Bull. Acad. Sci. Cracovie Sci. Math. Nat.** Bulletin international de l'Académie des sciences de Cracovie. Classe des sciences mathématiques et naturelles. Anzeiger der Akademie der Wissenschaften in Krakau. Mathematisch-naturwissenschaftliche Klasse.

In 1910 the series was divided into Série A: Sciences mathématiques, and Série B: Sciences naturelles.

**Bull. Acad. Sci. Petrograd.** See Bull. Acad. Sci. U.R.S.S.

**Bull. Acad. Sci. Russe.** See Bull. Acad. Sci. U.R.S.S.

**Bull. Acad. Sci. St. Pétersb.** See next entry.

**Bull. Acad. Sci. U.R.S.S.** Bulletin de l'Académie des sciences de l'Union des Républiques Soviétiques Socialistes. Leningrad. Izvestiia Akad. Nauk SSSR Sovetskikh Sotsialisticheskikh Respublik.

For series I of this serial, see Bull. Sci. Acad. Sci. St. Pétersb. For series II see Bull. Phys. Math. Acad. Sci. St. Pétersb. Series III (but not designated as such), vol. 1 (1860) to series VI, vol. 8, no. 11 were published under the title: Bulletin de l'Académie impériale des sciences de St. Pétersbourg. Série VI, vol. 8, no. 12 to série VI, vol. 11, no. 11 were published under the title: Bulletin de l'Académie des sciences. Petrograd. Série VI, vol. 11, no. 12 to vol. 19, no. 11, were published under the title: Bulletin de l'Académie des sciences de Russie, Petrograd, Leningrad. Series III ceased with vol. 32(1893). Series IV, vols. 1(1899-90) to 4(1893-94) was called "nouvelle série." It bore volume numbers for both the separate series and for the continuation of the series begun in 1860 (i. e., sér. III); both numbers are used in this bibliography. Beginning with the second part of 1894 series V was instituted, and the subsequent issues

appeared as follows: Ser. V, 1(1894) to 25; Sér. VI, 1(1907) to 21(1927); Sér. VII, vol. for 1928—current (volume numbers not given).

**Bull. Agr. Exp. Sta. Chosen.** Bulletin of the Agricultural experiment station, government-general of Chosen. See appendix, p. 571, col. 1.

**Bull. Agr. Exp. Sta. Cornell.** Bulletin of the Agricultural experiment station. Cornell university. Ithaca, N. Y.

[**Bull. Agr. Exp. Sta. S. Manch. Ry.**] [South Manchuria railway company. Agricultural experiment station. Bulletin.] See appendix, p. 577, col. 1.

**Bull. Agr. For. Coll. Suigen Corea.** Bulletin of the Agricultural and forestry college, Suigen, Corea.

**Bull. Agr. Inst. Sci. Saigon.** Bulletin agricole de l'Institut scientifique de Saigon.

**Bull. Alpine Gard. Soc. Gt. Brit.** Bulletin of the Alpine garden society. Published by the Alpine garden society of Great Britain.

**Bull. Amer. Delphinium Soc.** Bulletin of the American Delphinium society.

**Bull. Amer. Iris Soc.** Bulletin of the American Iris society. Nos. 1-[13] were published under the title: American Iris society.

**Bull. Amer. Mus. Nat. Hist.** Bulletin of the American museum of natural history. New York.

**Bull. Amer. Peony Soc.** American peony society bulletin.

**Bull. Angewandte Bot.** See Bull. Appl. Bot. & Pl. Breed.

**Bull. Appl. Bot.** See next entry.

**Bull. Appl. Bot. & Pl. Breed.** Bulletin of applied botany, genetics and plant-breeding. Trudy po Prikladnoi Botanike, Genetike i Seleksii.

Vol. 1(1908) to vol. 3(1910) were issued under the title: Bulletin des Bureau für angewandte Botanik. Vol. 4(1911) to vol. 7, no. 9(1914) were issued under the title: Bulletin für angewandte Botanik. Vols. 7, no. 10(1914) to Vol. 10 (1917) were issued under the title: Bulletin of applied botany. Scientific journal of the Bureau of applied botany. Vol. 11(1918) (in part at least) was issued under the title: The Bulletin of applied botany and selection. . . Vols. 12 (1921) to 17, no. 2(1927) were issued under the title: Bulletin of applied botany and plant breeding. Vols. 17, no. 3(1927) to date were issued under the first title given.

The Russian title through the 10th year was: Trudy Biuro po Prikladnoi Botanike. From Vols. 11 to 16 it was: Trudy po Prikladnoi Botanike i Seleksii.

In 1932 ten series were instituted as follows: Series A.—Plant industry in U.S.S.R. (Periodical edition); I-st series—Taxonomy, geography and ecology of plants; II-d series—Genetics, plant breeding and cytology; III-rd series—Physiology, and biochemistry and anatomy of plants; IV-th series—Seed growing and variety testing (Not seen); V-th series—Grain crops; VI-th series—Vegetables, cucurbits, tuber plants and root crops (Not seen); VII-th series—Forage and pasture plants (Not seen); VIII-th series—Fruit and berry growing; IX-th series—Technical plants; X-th series—Dendrology and ornamental plants; XI-th series—New cultures and questions of introduction; XII-th series—Weeds; XIII-th series—Reviews and bibliography. (Changed to "Abstracts and bibliography" with no. 2).

**Bull. Biogeogr. Soc. Japan.** Bulletin of the Biogeographical society of Japan. Tokyo. See appendix, p. 571, col. 1.

[**Bull. Biol. Assoc. Univ. Amoy.**] [Bulletin of the Biological association, university of Amoy.] Hsia-ta sheng-wu-hsieh hui ch'i k'an. See appendix, p. 563, col. 1.

**Bull. Biol. France Belg.** Bulletin biologique de la France et de la Belgique. Paris.

This is a continuation of Bull. Sci. France & Belg.

**Bull. Bishop Mus.** Bulletin. Bernice P. Bishop museum, Honolulu, Hawaii.

**Bull. Bot. Gard. Nikita.** Gosudarstvennyi Nikitskii Opytnyi Botanicheskii Sad. Yalta-Krym. Biulleten'. National botanical garden Nikita, Yalta, Crimea. Bulletin. Published by the Narodnyi Komissariat Zemledeliia [Peoples commissariat of agriculture].

This is not the same as Zapiski Gosudarstvennogo Nikitskogo (Opytnogo) Botanicheskogo Sada.

**Bull. Canton Christ. Coll.** Bulletin no. [ ]. Canton Christian college. Canton, China. See appendix, p. 565, col. 1.

- Bull. Chekiang Prov. Fish. Exp. Sta.** Bulletin of Chekiang provincial fisheries experiment station, Tanghai, Chekiang, China.
- Bull. Chin. Bot. Soc.** Bulletin of the Chinese botanical society. Peiping. See appendix, p. 564, col. 1.
- Bull. Chin. East. Ry.** Bulletin of the Chinese eastern railway. Harbin. Vestnik Kitaisko-Vostochnoi Zheleznoi Dorogi. This serial has not been seen. See appendix, p. 564, col. 1.
- Bull. Chrysanth. Soc. Amer.** Bulletin of the Chrysanthemum society of America.
- Bull. Coll. Agr. For. Morioka.** The Bulletin of the Imperial college of agriculture and forestry, Morioka, Japan. See appendix, p. 575, col. 2.
- Bull. Coll. Agr. For. Univ. Nanking.** Bulletin no. [ ] (new series). Published by College of agriculture and forestry. The university of Nanking. This serial consists largely of reprints. See appendix, p. 565, col. 2.
- Bull. Coll. Agr. Tokyo Univ.** The Bulletin of the College of agriculture, Tokyo imperial university. See appendix, p. 574, col. 1.
- Bull. Com. Étud. Sapropél.** Bulletin du Comité pour l'étude des sapropélites. Izvestiia Sapropel'evogo Komiteta. Leningrad. Published by the Academy of Sciences USSR.
- Bull. Congr. Internat. Bot. Hort. Amsterdam, 1865.** Bulletin du Congrès international de botanique et d'horticulture, réuni à Amsterdam les 7, 8, 10 et 11 Avril 1865.
- Bull. Congr. Internat. Bot. Hort. St. Pétersb., 1885.** Bulletin du Congrès international de botanique et d'horticulture, réuni à St. Pétersbourg le 5-15 Mai 1884. St. Pétersbourg. 1885.
- [**Bull. Dept. Agr. Formosa.**] [Bulletin of the Department of agriculture, Government research institute, Formosa.] Nogyo-bu Iho, Taiwan sotoku-fu Chuo kenkyu-sho. See appendix, p. 572, col. 1.
- Bull. Dept. Agr. Ind. Néerl.** Bulletin du Département de l'agriculture aux Indes Néerlandaises.
- Bull. Dept. Biol. Sun Yatsen Univ.** Bulletin of the Department of biology, College of science, Sun Yatsen university, Canton, China. This is the title of Vol. 1 (?), no. 2, which contains botany. See appendix, p. 567, col. 2.
- Bull. Dept. Biol. Yenching Univ.** Bulletin of the Department of biology of Yenching University, Peking. See appendix, p. 568, col. 2.
- Bull. Div. Pl. Path. Agr. Exp. Sta. Formosa.** Bulletin [no. —]. Division of plant pathology, Agricultural experimental station, Government of Formosa. Taihoku. See appendix, p. 571, col. 2.
- Bull. Écon. Indo-Chine.** Bulletin économique de l'Indo-chine. Hanoi.
- Bull. Fan Mem. Inst. Biol.** Bulletin of the Fan memorial institute of biology, Peiping, China. See appendix, p. 564, col. 2.
- Bull. Far East. Branch Acad. Sci. U.S.S.R.** Bulletin of the Far Eastern branch of the Academy of sciences of the U.S.S.R. Vestnik Dal'nevostochnogo Filiala Akademii Nauk SSSR.
- Bull. Florida Agr. Exp. Sta.** Bulletin. University of Florida agricultural experiment station. Gainesville, Florida.
- Bull. For. Exp. Sta. Chosen.** Bulletin of the Forest experiment station, Keijo, Chosen. The English title does not appear on all numbers. Some references have erroneously been referred to Rep. For. Exp. Sta. Chosen. See appendix, p. 571, col. 2.
- Bull. For. Exp. Sta. Tokyo.** Bulletin of the Forest experiment station. Meguro, Tokyo. The earlier issues bear the Japanese title only. See appendix, p. 577, col. 2.
- Bull. For. Inf. (Sun Yat-sen Univ.).** Bulletin no. —. Forest information. Published by the first demonstrative forest station, under the College of agriculture, Sun Yat-sen university. See appendix, p. 567, col. 2.
- [**Bull. For. Soc. Korea.**] [Bulletin of the Forestry (dendrological?) society of Korea.] This serial has not been seen. See appendix, p. 571, col. 2.
- Bull. Géogr. Bot.** Bulletin de géographie botanique. Le Mans. This serial is a continuation of Monde des Pl., beginning with Vol. 8, no. 110(1909). From then on through Vol. 20, part II, the title was: Bulletin de l'Académie internationale de géographie botanique, with the subtitle: Le Monde des plantes up to vol. 15, no. 185(1905). After that it took the title as given.
- Bull. Herb. Boiss.** Bulletin de l'Herbier Boissier. Genève & Bâle.
- Bull. Hist. Nat. Soc. Linn. Bordeaux.** See Act. Soc. Linn. Bordeaux.
- Bull. Hokkaido Agr. Exp. Sta.** Bulletin. Hokkaido agricultural experiment station, Kotoni, Sapporo, Japan. See appendix, p. 572, col. 2.
- Bull. Imp. Agr. Exp. Sta. Nishigahara.** Bulletin of the Imperial agricultural experiment station, Nishigahara, Tokyo. See appendix, p. 573, col. 2.
- Bull. Imp. Inst. (London).** Bulletin of the Imperial institute. London.
- Bull. Inf. Jard. Bot. Univ. Cluj.** Bulletin (d'information) du Jardin et du Musée botaniques de l'université de Cluj, Roumanie. Buletinul [de informații al] Grădini botanice și al Muzeului botanic dela Universitatea din Cluj.
- Bull. Inst. Bot. Buitenzorg.** Bulletin de l'Institut botanique de Buitenzorg. This is series I (1898-1908) of Bull. Jard. Bot. Buitenzorg.
- Bull. Inst. Oinone (Japan).** Bulletin de l'Institut Oinone de recherches agronomiques et biologiques. Japan. See appendix, p. 574, col. 2.
- Bull. Inst. Rech. Biol. Univ. Perm.** Bulletin de l'Institut des recherches biologiques et de la Station biologique à l'Université de Perm. Izvestiia Biologicheskogo Nauchno-Issledovatel'skogo Instituta pri Gosudarstvennom Permskom Universitete.
- Bull. Inst. Sci. Biol. Géogr. Univ. Irkoutsk.** Bulletin de l'Institut scientifique de biologie et de géographie à l'Université d'Irkoutsk. Izvestiia Biologo-Geograficheskogo Nauchno-Issledovatel'skogo Instituta pri Gosudarstvennom Irkutskom Universitete. This serial is published in fascicles with separate pagination. The tables of contents have German translations of the titles.
- Bull. Jap. Soc. Sci. Fish.** Bulletin of the Japanese society of scientific fisheries. Tokyo. See appendix, p. 575, col. 1.
- Bull. Jard. Bot. Acad. Sci. U.R.S.S.** Bulletin du Jardin botanique de l'Académie des sciences de l'U.R.S.S. Leningrad. Vols. 1 to 13 were published under the title: Bulletin du Jardin impérial botanique de St. Pétersbourg. Izvestiia S.-Peterburgskago Botanicheskago Sada. Vols. 14 to 16 were published under the title: Bulletin du Jardin (impérial) botanique de Pierre le Grand. Petrograd. Izvestiia Botanicheskago Sada Petra Velikago. Vols. 18 to 29(1931) were published under the title: Bulletin du Principal Jardin botanique de la République Russe. Petrograd. Izvestiia Glavnogo Botanicheskago Sada R.S.F.S.R. (S.S.S.R.). Beginning with Vol. 30(1932) the title was: Bulletin du Jardin botanique de l'Académie des sciences de l'U.R.S.S. This serial ceased publication with vol. 30 and was continued as Sovetsk. Bot. (Sovetskaiia botanika).
- Bull. Jard. Bot. Brux.** Bulletin du Jardin botanique de l'état. Bruxelles.
- Bull. Jard. Bot. Buitenzorg.** Bulletin du Jardin botanique. Departement van landbouw, nijverheid en handel. 's Lands Plantentuin. Buitenzorg, Java. This is the title of series II (1911-1918) and III (1918-current). For series I see Bull. Inst. Bot. Buitenzorg.
- Bull. Jard. Bot. Kieff.** Bulletin du Jardin botanique de Kieff. Izvestiia Kievskogo Botanicheskago Sada. The Ukrainian title is: Vistnik Kiiv'skogo Botanicheskogo Sada. Beginning with fascicle 14 the Russian title is dropped, the Ukrainian and French titles retained. Beginning with fascicle 16, Kieff was changed to Kyiv. This serial is reported to have merged in 1934 with Journ. Inst. Bot. Acad. Sci. Ukraine.
- Bull. Jard. Bot. Pierre Grand.** See Bull. Jard. Bot. Acad. Sci. U.R.S.S.
- Bull. Jard. Bot. Prin. U.R.S.S.** See Bull. Jard. Bot. Acad. Sci. U.R.S.S.



- Bull. Jard. Bot. Rep. Russe.** See Bull. Jard. Bot. Acad. Sci. U.R.S.S.
- Bull. Jard. Bot. St. Pétersb.** See Bull. Jard. Bot. Acad. Sci. U.R.S.S.
- Bull. Kagoshima Coll. Agr. For.** Bulletin of the Kagoshima imperial college of agriculture and forestry. Japan. See appendix, p. 575, col. 1.
- Bull. Kol. Mus. Haarlem.** Bulletin van het Koloniaal museum te Haarlem.
- Bull. Lab. Bot. Univ. Siena.** See next entry.
- Bull. Lab. Ort. Bot. Univ. Siena.** Bullettino del Laboratorio ed Orto botanico. R. Università di Siena.  
Vol. 1 (1897-98) was published under the title: Bullettino del Laboratorio botanico della R. Università di Siena.
- Bull. Lloyd Libr.** Bulletin of the Lloyd library and museum of botany, pharmacy and materia medica. Cincinnati, Ohio.
- Bull. Mais. Franco-Jap.** Bulletin de la Maison franco-japonaise. Tokyo.
- Bull. Mass. Hort. Soc.** Bulletin of the Massachusetts horticultural society. Boston.
- [Bull. Ministry Ed.]** [Bulletin of the Ministry of education.] Chiao-yu kung pao.  
An official publication. See appendix, p. 563, col. 2.
- Bull. Missouri Bot. Gard.** Bulletin. Missouri botanical garden.
- Bull. Miyazaki Coll. Agr. For.** Bulletin of Miyazaki college of agriculture and forestry. Miyazaki, Japan. See appendix, p. 575, col. 2.
- Bull. Murith. Soc. Valais.** Bulletin de la Murithienne. Société Valaisanne des sciences naturelles. Sion, Valais.
- Bull. Mus. Hist. Nat. (Paris).** Bulletin du Muséum national d'histoire naturelle. Paris.
- Bull. Nat. Acad. Peiping.** Bulletin of the National academy of Peiping.  
This serial was published irregularly, vol. 1, no. 1 being dated 1933, but no. 3 bearing date 1930. See appendix, p. 566, col. 1.
- Bull. New York Bot. Gard.** Bulletin of the New York botanical garden.
- Bull. New York State Coll. For.** Bulletin of the New York state college of forestry.
- Bull. Oregon Agr. Exp. Sta.** Station Bulletin. Oregon agricultural college experiment station.
- Bull. Pacific Sci. Fish. Res. Sta.** Bulletins of the Pacific (Ocean) scientific fishery station. Vladivostok. Izvestiia Tikhookeanskoi Nauchno-Promyslovoi Stantsii.  
Beginning with vol. 4, no. 2 "Institute" replaces "Station" in the title.
- Bull. Peking Soc. Nat. Hist.** See Peking Nat. Hist. Bull. and appendix, p. 566, col. 2.
- Bull. Phys.-Math. Acad. Sci. St. Pétersb.** Bulletin de la Classe physico-mathématique de l'Académie impériale des sciences de Saint-Pétersbourg.  
This constitutes the second series of Bull. Acad. Sci. U.R.S.S.
- Bull. Phys. Math. Acad. Sci. Ukraine.** Vseukrainska Akademiia Nauk. Zapiski Fisichno Matematichnogo Viddilu. Académie des sciences d'Ukraine. Bulletin de la Classe des sciences physiques et mathématiques.
- Bull. Pl. Path. Agr. Exp. Sta. Formosa.** Bulletin. Division of plant pathology. Agricultural experiment station, government of Formosa.
- Bull. Pl. Protect. (Leningr.).** Bulletin of plant protection. Leningrad. Trudy po Zashchite Rastenii. Published by the Institute for plant protection.  
Issued in series with their own numbering also. Ser. I. Entomology (Entomologicheskaja), II. Phytopathology (Fitopatologija), III. Control measures and implements (Sredstva i Orudija Borby), IV. Vertebrates (Pozvonochnye).
- Bull. Russ. Géogr. Soc.** Bulletin de la Société impériale russe de géographie. Izvestiia Imperatorskago Russkago Geograficheskago Obshchestva.
- Bull. School Fish. Hokkaido Univ.** Bulletin of the School of fishery, Hokkaido imperial university. See appendix, p. 573, col. 1.
- Bull. Sci. Acad. Sci. St. Pétersb.** Bulletin scientifique publié par l'Académie impériale des sciences de Saint-Pétersbourg.  
This constitutes the first series of Bull. Acad. Sci. U.R.S.S.
- Bull. Sci. France & Belg.** Bulletin scientifique de la France et de la Belgique. Londres, Paris, Berlin.  
Continued as: Bull. Biol. France & Belg.
- "Bull. Sci. Friends' Assoc. Higher School Agr. Forest. Mie."**  
This Japanese serial has not been identified.
- Bull. Sci. Pharm.** Bulletin des sciences pharmacologiques, Paris.
- Bull. Sericult. Exp. Sta. Japan.** The Bulletin of the Imperial sericultural experiment station. Japan. See appendix, p. 574, col. 1.
- Bull. Shanghai Sci. Inst.** Bulletin of the Shanghai science institute.  
A serial in Japanese. English abstracts are issued as "Separate print no. —. The journal of the Shanghai Science institute." See appendix, p. 567, col. 1, or p. 576, col. 2.
- Bull. Soc. Acad. Brest.** Bulletin de la Société académique de Brest.
- Bull. Soc. Acclim.** See Bull. Soc. Nat. Acclim. France.
- Bull. Soc. Agr. Hérault.** Bulletin de la Société d'agriculture du Département de l'Hérault.  
This serial containing a few papers concerned with eastern Asiatic plants has not been located in the United States.
- Bull. Soc. Agr. Sarthe.** Bulletin de la Société d'agriculture, sciences et arts de la Sarthe. Le Mans.
- Bull. Soc. Bot. Belg.** Bulletin de la Société royale de botanique de Belgique.  
Vols. 18 to 22 contained two separate parts, the first with an added title-page bearing the title: Mémoires de la Société royale de botanique de Belgique (cited in this bibliography as Bull. Soc. Bot. Belg. [vol. no.] 1: Mém.). The second part bears the additional title-page bearing the title: Comptes-rendus des séances de la Société royale de botanique (cited in this bibliography as Bull. Soc. Bot. Belg. [vol. no.] 2: Compt. Rend.). Beginning with vol. 23 the original title is used, and all papers are in continuously pagéd volumes.
- Bull. Soc. Bot. France.** Bulletin de la Société botanique de France. Paris.
- Bull. Soc. Bot. France. [—]: Mém. [—]:** The title on the fascicle-covers reads: Bulletin de la Société botanique de France [vol. no.] Mémoires, each pagéd separately. The title-page for volumes reads: Mémoires publiés par la Société botanique de France: vol. [1], Mém. [1-7] 1905-07; vol. 2, Mém. 8-24. 1907-12; vol. 3, etc. In some libraries the "Mémoires" are bound in the current volumes of the Bulletin; in others, separately under the "Mémoires" title page.
- Bull. Soc. Bot. France. [vol. no.] Rev. Bibl.** Bulletin de la Société botanique de France. Revue bibliographique.  
This is a separately pagéd part occurring in several volumes of Bull. Soc. Bot. France.
- Bull. Soc. Bot. France. [vol. no.] Sess. Extraord.** Bulletin de la Société botanique de France. Session extraordinaire.  
This is a separately pagéd part dealing with special meetings and excursions, occurring in several volumes of Bull. Soc. Bot. France.
- Bull. Soc. Bot. Genève.** Bulletin de la Société botanique de Genève.  
This is the title of series II. Series I bore the title: Bulletin des travaux de la Société botanique de Genève.
- Bull. Soc. Bot. Ital.** Bullettino della Società botanica Italiana. Firenze.
- Bull. Soc. Bot. Lyon Compt. Rend.** Bulletin de la Société botanique de Lyon. Comptes rendus des séances.
- Bull. Soc. Cent. Agr. France.** Bulletin des séances de la Société centrale d'agriculture de France.
- Bull. Soc. Dendr. France.** Bulletin de la Société dendrologique de France.
- Bull. Soc. For. Kyoto Univ.** Bulletin. Society of forestry Kyoto imperial university. See appendix, p. 575, col. 2.
- Bull. Soc. Franco-Jap.** Bulletin de la Société franco-japonaise de Paris.
- Bull. Soc. Géogr. Paris.** Bulletin de la Société de géographie. Paris.



**Bull. Soc. Hist. Nat. Autun.** Bulletin de la Société d'histoire naturelle d'Autun.

**Bull. Soc. Hist. Nat. Toulouse.** Bulletin. Société d'histoire naturelle de Toulouse.

**Bull. Soc. Hort. Sarthe.** Bulletin. Société d'horticulture de la Sarthe. Le Mans.

**Bull. Soc. Linn. Lyon.** Bulletin bi-mensuel de la Société Linnéenne de Lyon.

**Bull. Soc. Linn. Normandie.** Bulletin de la Société Linnéenne de Normandie. Caen.

**Bull. Soc. Linn. Paris.** Bulletin mensuel de la Société Linnéenne de Paris.

**Bull. Soc. Mycol. France.** Bulletin de la Société mycologique de France. Paris.

The title varies, that for 1888 containing the designation: Société botanique et mycologique, and being without volume number. From 1887 to 1891 the word Bulletin does not appear in the title.

**Bull. Soc. Nat. Acclim. France.** Bulletin de la Société nationale d'acclimation de France. (Revue des sciences naturelles appliquées.)

Vol. 1 (1854) was published under the title: Bulletin de la Société zoologique d'acclimation. From vol. 2 (1855) to ser. II, vol. 7 (1870) the word "impériale" was used after "Société." In ser. II, vols. 8 (1871) and 9 (1872) the title was: Bulletin de la Société d'acclimation. From ser. II, vol. 10 (1873) to ser. III, vol. 2 (1875) the title was: Bulletin mensuel de la Société d'acclimation. From ser. III, vol. 3 (1876) to ser. III, vol. 8 (1881) the word "mensuel" was again omitted. From ser. III, vol. 9 (1882) to ser. IV, vol. 5 (1888) the title was: Bulletin de la Société nationale d'acclimation de France. From ser. IV, vol. 6 (1889) to vol. 42 (of the whole series) (1896), the title was: Revue des sciences naturelles appliquées: Bulletin bimensuel de la Société nationale d'acclimation de France. From vol. 43 (1896) to vol. 76 (1929) the title was: Bulletin de la Société nationale d'acclimation de France (Revue des sciences naturelles appliquées).

**Bull. Soc. Nat. Hort. France.** Bulletin de la Société nationale d'horticulture de France. Paris.

This is ser. V of Journ. Soc. Nat. Hort. France.

**Bull. Soc. Nat. Moscou.** Bulletin de la Société (impériale) des naturalistes de Moscou.

An index to the first 56 volumes (1829-41) was issued in 1882.

**Bull. Soc. Nat. Moscou [vol.] Prot.**

This is a separately paged part of certain volumes of the preceding, containing the Protokoly Zasedanii [Protocols (Minutes) of the meetings].

**Bull. Soc. Pharm. Bordeaux.** Bulletin des travaux de la Société de pharmacie de Bordeaux.

This is a continuation of the Journal de pharmacie de Bordeaux.

**Bull. Soc. Philom. Paris.** Bulletin de la Société philomathique de Paris. Bulletin des sciences.

**Bull. Soc. Philom. Paris [ ]: Compt. Rend. [ ].** Bulletin de la Société philomathique de Paris. Compte-rendu sommaire des séances de la Société philomathique de Paris.

This is a separately paged section of the volumes of Bull. Soc. Philom. Paris.

**Bull. Soc. Sci. Nancy.** Bulletin de la Société des sciences de Nancy. Nancy.

**Bull. Soc. Sci. Nat. Saône-et-Loire.** Bulletin de la Société naturelle de Saône-et-Loire.

**Bull. Soc. Tosc. Ort.** Bulletino della R. Società Toscana di orticoltura. Firenze.

**Bull. S. Ussuri Branch Russ. Geogr. Soc.** Bulletin of the Southern Ussuri branch of the Russian geographical society. Izvestiia Iushno-Ussuriiskogo (Otdeleniia Priamurskogo) Otdela Gosudarstvennago Russkago Geograficheskago Obshchestva.

Some numbers do not bear the English title. The Russian title varies.

**Bull. Tokyo Imp. Univ. For.** Bulletin of the Tokyo imperial university forests. Tokyo Teikoku-Daigaku Nogakubu Enshurin-Hokoku. See appendix, p. 574, col. 1.

**Bull. Torrey Club.** Bulletin of the Torrey botanical club. New York.

**Bull. Trav. Soc. Bot. Genève.** See Bull. Soc. Bot. Genève. **Bull. Univ. Asie Centr.** Bulletin de l'Université de l'Asie Centrale. Tashkent.

**Bull. Univ. Aurore.** Bulletin de l'Université l'Aurore [Zi-kawei, Shanghai].

This may be a continuation of Bull. Soc. Univ. Chang-hai.

**Bull. Univ. Florida Agr. Exp. Sta.** Bulletin [no.]. University of Florida agricultural experiment station.

[**Bull. Univ. For. Kyūshū Univ.**] [Bulletin of the University forest, Kyūshū imperial university. Fukuoka.] Enshurin hokoku. Kyūshū teikoku daigaku. See appendix, p. 575, col. 2.

**Bull. [U. S.] Bur. Fish.** Bulletin of the [United States] bureau of fisheries. Washington.

**Bull. Utsunomiya Agr. Coll.** Bulletin of the Utsunomiya agricultural college. Utsunomiya, Nippon. See appendix, p. 578, col. 2.

**Bult. Sci. Fak. Terk. Kjusu Univ.** Bulteno scienza de la Fakultato terkultura, Kjusu imperia universitato, Fukuoka. See appendix, p. 575, col. 2.

## C

**Calcutta Journ. Nat. Hist.** Calcutta journal of natural history, and miscellany of the arts and sciences in India.

**Calif. Citrogr.** California citrograph.

**Candollea.** Candollea, organe du Conservatoire et du Jardin botaniques de la ville de Genève.

Replaces Ann. Conserv. Jard. Genève.

**Carnegie Inst. Washington Publ.** Carnegie institution of Washington, publication [no.].

**Centralbl. Bakt.** Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten. Jena.

**Centralbl. Forstw.** Centralblatt für das gesammte Forstwesen. Wien.

**Chelov. & Priir.** Chelovek i Priroda. [Man and nature.]

**Chin. Econ. Bull.** Chinese economic bulletin. Peiping, Shanghai. See appendix, p. 564, col. 1.

**Chin. Econ. Journ.** Chinese economic journal. Shanghai.

This is a continuation of the Chinese economic monthly.

**Chin. Econ. Month.** Chinese economic monthly. Peiping; Shanghai.

After issuing three volumes this serial merged with the Chinese economic journal (1927). See appendix, p. 564, col. 1.

**Chin. & Jap. Repos.** Chinese and Japanese repository of facts and events in science, history and art, relating to eastern Asia. London.

**Chin. Journ. Bot.** The Chinese journal of botany. Published by the Chinese society of biological sciences. Peiping. See appendix, p. 564, col. 1.

**Chin. Rec.** The Chinese recorder. Journal of the Christian movement in China.

Vols. 1 (1868) to Jan. 1912 were published under the title: The Chinese recorder and missionary journal. See appendix, p. 564, col. 1.

**Chin. Rec. & Mission. Journ.** See preceding entry.

**Chin. Repos.** The Chinese repository. Canton. See appendix, p. 564, col. 1.

**Chin. Zeitschr. Medizin.** Chinesische Zeitschrift für die gesammte Medizin. Peking.

**China Cotton Journ.** China cotton journal. Shanghai. See appendix, p. 563, col. 2.

**China Journ.** The China journal. Shanghai.

Vols. 1 to 8 were published under the title: The China journal of science and arts. See appendix, p. 563, col. 2.

**China Journ. Sci. Arts.** See preceding entry.

**Chin. Journ. Zool.** The Chinese journal of zoology. Zoological society of China. See appendix, p. 564, col. 1.

**China Marit. Cust. II. Spec. Ser.** China. Imperial maritime customs. II. Special series: no. —.

**China Med. Journ.** The China medical journal. Shanghai. See appendix, p. 564, col. 1.

**China Rev.** China review. Hongkong. See appendix, p. 563, col. 2.