

Botany Resource Guide

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This guide provides selected information resources for Botany or Plant Science. Included are the Mildred F. Sawyer Library databases, web resources, and print and electronic reference resources. For specific book and periodical titles, check the [Suffolk University Library Catalog](#). See also the [Biology Resource Guide](#) and the [Environmental Science Resource Guide](#).

The Sawyer Library subscription reference resources, periodical indexes, and full-text databases are available to current Suffolk University students, faculty, and staff, both on campus and [off campus](#).

Periodical Indexes and Full-text Databases

[Academic Search Premier](#)

Our best general research database, this online resource from EBSCO covers a wide range of academic areas including biology, ecology, and about 20 botany or plant science specific titles. Provides indexing and abstracting for 4,600+ scholarly publications with full-text access for over 3,600 of the titles. Indexing and abstracting coverage generally begins from the mid-1980's and full-text or linked full-text coverage for many titles dates back to 1990. Search results can be limited to full-text and/or peer-reviewed articles.

[Expanded Academic ASAP](#)

This is the main general database from Thomson Gale and provides indexing and abstracting for 3,000 academic and popular journals covering a variety of academic fields including general biology and botanical titles. Full-text provided for about 2,000 titles with coverage generally beginning in 1980. You may limit search results to full-text and/or peer-reviewed articles.

[Blackwell Synergy](#)

Blackwell Synergy is a database of over 800 journals published by Blackwell Publishing mainly for "international scholarly and professional societies." It includes titles in plant science and ecology. Access to abstracts is free, but full-text is available only for titles that the Sawyer Library subscribes to, which may be difficult to identify.

[SpringerLink](#)

Now Springer Science+Business Media (formerly Springer Verlag), including Kluwer. Provides indexing and full-text (by subscription) for peer-reviewed scientific, technical, and medical titles, including 200 biological sciences journals with about 48 in plant sciences. Especially useful for European titles, but may be difficult to identify full-text titles subscribed to by Sawyer Library (those marked by the "eyeglasses" symbol).

[HighWire Press](#)

<http://www.highwire.org>

Full-text of over 900 physical, biological, medical, and social sciences peer-reviewed journals published by the Stanford University Libraries' HighWire Press. Includes plant biology, e.g., vascular/nonvascular plants, paleobotany, plant physiology. Note that, again, full-text may only be available for journals to which the Library has a subscription - which may be hard to identify.

[JSTOR](#)

The full-text archival database of over 300 scholarly journals including 13 journals in botany and plant sciences and 25 in ecology and evolutionary biology. Coverage for some of these journals extends back to the 19th century. Publishers' moving walls may limit access to articles to 3 to 5 years back from the current date. Since there are no subject headings and limited abstracts in JSTOR, it is best to search for keywords in the title of the article by using the "Advanced Search."

[BioOne](#)

Founded by "non-profit scholarly organizations" such as The American Institute of Biological Sciences (AIBS) and the Scholarly Publishing & Academic Resources Coalition (SPARC), this database contains full-text bioscience research journals from organizations such as the New York Botanical Garden, the American Fern Society, and the Weed Science Society of America.

Coverage generally begins in 1998, but the archives for many titles can be found in JSTOR.

Selected Websites

[Scirus](#)

<http://www.scirus.com/>

Elsevier, a major scientific, technical, and medical publisher, claims that its Scirus website provides the "most comprehensive science specific search engine on the Internet." Scirus searches web pages, e.g., university and society websites, as well as journals. Searches can be limited to bioscience sources. Includes Elsevier's ScienceDirect which covers plant science, ecology, horticulture, etc., but only some of the full-text journals are subscribed to by the Library.

[PLANTS Database](#)

<http://plants.usda.gov/index.html>

This website from the Natural Resources Conservation Service, U.S. Department of Agriculture (USDA), "provides standardized information about the vascular plants, mosses, liverworts, hornworts, and lichens of the U.S. and its territories." Includes data reports on specialized areas, a "Plant of the Week," an "Image Gallery," and an extensive set of "PLANTS Links" to other botanical sources.

[International Plant Names Index \(IPNI\)](#)

<http://www.ipni.org/>

This database gives the names and bibliographical details of all seed plants. Search by plant name, author, publication, or collector. A collaborative project of the:

[The Royal Botanic Gardens, Kew](http://www.rbgekew.org.uk/), <http://www.rbgekew.org.uk/>

[Harvard University Herbaria](http://www.huh.harvard.edu/), <http://www.huh.harvard.edu/>

[Australian National Herbarium](http://www.anbg.gov.au/), <http://www.anbg.gov.au/>

[AGRICOLA](#)

<http://agricola.nal.usda.gov/>

This is the web gateway to the USDA's U.S. National Agricultural Library (NAL), which supports a great deal of research in plant sciences. AGRICOLA (AGRICultural OnLine Access) provides indexing for journal articles, book chapters, short reports, and reprints. Of the two search engines on this site, the "Article Citation Database" is the more useful--although don't expect full-text from it. The "NAL Catalog" is the equivalent of searching the NAL Library's online catalog. Also contains the NAL Agricultural Thesaurus.

[Curtis's Botanical Magazine](#)

<http://www.nal.usda.gov/curtis/>

In fields like botany, some of the most important basic work was done over 200 years ago. Therefore, the National Agricultural Library has produced a wonderful web archive of "The Botanical Magazine" that William Curtis published from 1787 to 1800, and that John Sims published from 1801 through 1807. The illustrations, most by Sydenham S. Edwards, are enough to recommend this resource, but accompanying text is also very valuable. Now published by Blackwell for The Royal Botanic Gardens, Kew, this title is also available full-text in Blackwell Synergy from 1997+ and in Academic Search Premier from 1999 up to 1 year ago from the current date.

[Botanical Society of America](http://botany.org/)

<http://botany.org/>

The website of the Botanical Society of America, founded in 1906, includes a collection of about 800 online images related to topics such as plant species, pollen, paleobotany, and plant defense mechanisms. It also contains a list of "Additional Botanical Links" to "sites BSA members find both useful and enjoyable in explaining plant information." Other useful items are its Google search engine and access to its *Plant Science Bulletin* and *American Journal of Botany*, which is available in JSTOR (1914 to about 5 years back from current date) and through HighWire Press as well (1997+).

[Smithsonian Institution Department of Botany](http://www.nmnh.si.edu/botany/)

<http://www.nmnh.si.edu/botany/>

Part of the National Museum of Natural History, this site includes in its Botanical Art and Images section a Plant Image Collection and Botanical Illustrations. The latter are part of The Department of Systematic Biology's ongoing effort to post online the more than 3000 botanical illustrations curated by the department's scientific illustrator, Alice Tangerini. "It is our hope that the scientific drawings included in this catalog will contribute to the understanding and appreciation of the plant species illustrated." Images include black and white drawings and color plates. Other resources include publications such as *Plant Press* and *Contributions from the National Herbarium*, as well as useful "Botanical Links."

[National Biological Information Infrastructure \(NBII\)](http://www.nbio.gov/disciplines/botany/)

<http://www.nbio.gov/disciplines/botany/>

The NBII site, developed and maintained by the Center for Biological Informatics, U.S. Geological Survey, "brings together a wide range of botanical resources available on the Web" in its botany section. This site has links to many online reference sources, such as dictionaries, glossaries, and encyclopedias, image collections, taxonomies, databases, other "Websites with Extensive Botanical Links," and the NBII Metadata Clearinghouse.

[PLANTfacts](http://plantfacts.osu.edu/)

<http://plantfacts.osu.edu/>

A website maintained by the Department of Horticulture and Crop Science at Ohio State University, this resource provides a searchable database of high quality images of not only plants, but also of their pests and diseases. Another option is a web search engine of government and university plant "factsheets."

[Linnean herbarium at the Swedish Museum of Natural History, Stockholm \(S-LINN\)](http://linnaeus.nrm.se/botany/fbo/welcome.html.en)

<http://linnaeus.nrm.se/botany/fbo/welcome.html.en>

Provides plant information by the Linnean classification system, names of plants for about 4000 specimens found in Sweden, historical botanical collections, and biographical information on Carl Linnaeus, the Swedish naturalist.

[HerbMed](http://www.herbmed.org)

<http://www.herbmed.org>

This project of the Alternative Medicine Foundation is an interactive electronic herbal database that provides background information on medicinal plants and links to the limited amount of scientific research done on herbal medicine. Only forty medicinal herbs are provided on the free version of this database but they do include the most famous remedies like echinacea purpurea. HerbMedPro has an additional 128 herbs and continuous updating, but it is a fee-based database.

[A Guide to Medicinal & Aromatic Plants](http://www.hort.purdue.edu/newcrop/med-aro/default.html)

<http://www.hort.purdue.edu/newcrop/med-aro/default.html>

Sponsored by the [Center for New Crops & Plant Products at Purdue University](#) (which also has other resources related to general crops and even "famine foods"), this resource for information on medicinal and culinary herbs provides basic plant/crop descriptors with background information about each herb. Listings are by common and/or Latin name.

[Dr. Duke's Phytochemical and Ethnobotanical Databases](http://www.ars-grin.gov/duke/)

<http://www.ars-grin.gov/duke/>

Dr. James A. "Jim" Duke, formerly of the USDA's Agricultural Research Service, created this website that provides information on the chemicals and activities of particular plants and their ethnobotanical uses. See also his [CRC Handbook of Medicinal Herbs](#).

[Native American Ethnobotany](http://herb.umd.umich.edu/)

<http://herb.umd.umich.edu/>

The University of Michigan, Dearborn, provides this "Database of Foods, Drugs, Dyes and Fibers of Native American Peoples, Derived from Plants." Listings give the Latin and Indian name for the plant, tell what it was used for, and cites literature related to relevant native plant literature. It also links to the appropriate page of the [PLANTS Database](#).

[Atlas of the Flora of New England](http://neatlas.huh.harvard.edu/)

<http://neatlas.huh.harvard.edu/>

The web version of the publication of the same name, which was sponsored by the Harvard University Herbaria. Plant information is subdivided under "Pteridophytes & Gymnosperms," "Poaceae," and "Monocots except Poaceae & Cyperaceae."

[Vascular Plants of New England](http://www.colby.edu/info.tech/BI211/Checklist.NE.Plants/Index.html)

<http://www.colby.edu/info.tech/BI211/Checklist.NE.Plants/Index.html>

This is a checklist, "derived from the PLANTS database," of vascular plants found in New England. Links include an "Index to Genera," "Alphabetical Listing of Families," and a "Synoptic Listing of Families" with further subdivisions by Division, Class, and Subclass. There is also a link to download data from the checklist.

[Northeast Wetland Flora: Field Office Guide to Plant Species](http://www.npwrc.usgs.gov/resource/plants/florane/florane.htm)

<http://www.npwrc.usgs.gov/resource/plants/florane/florane.htm>

A publication of the USDA's Natural Resources Conservation Service, this guide provides nice, well-illustrated pages for 300 vascular plant species, from ferns to trees to herbs.

[Flora of North America](http://hua.huh.harvard.edu/FNA/index.html)

<http://hua.huh.harvard.edu/FNA/index.html>

The Flora of North America is an ongoing project that will appear in 30 volumes, online and in print. It contains "information on the names, taxonomic relationships, continent-wide distributions, and morphological characteristics of all plants native and naturalized found in North America north of Mexico." Includes a link to the searchable database, FNA Online, part of [eFloras](#), a web-based program for data on "floristic treatments" for all areas of the world.

[Common Names of Plant Diseases](http://www.apsnet.org/online/common/)

<http://www.apsnet.org/online/common/>

A searchable web adjunct to the print publication of the same name, produced by the American Phytopathological Society's Committee on Standardization of Common Names for Plant Diseases. You can search this database by keyword or by the names of plant diseases through its alphabetical table of contents. Listings are by species.

[Flora of China Website](http://flora.huh.harvard.edu/china/mss/welcome.htm)

<http://flora.huh.harvard.edu/china/mss/welcome.htm>

Available through the Harvard Herbaria website, this page is a "collaborative project to publish the first modern English-language account of the approximately 31,000 species of vascular plants of China (one-eighth of the world's flora)."

[Scott's Botanical Links](#)

<http://www.ou.edu/cas/botany-micro/bot-linx/>

Dr. Scott Russell, Department of Botany and Microbiology, University of Oklahoma, organized this website, which compiles "useful botany education resources for the advanced high school (AP-biology) and college level. Internet resources vary in quality, so I have rated sites on a 4-star scale emphasizing educational value, completeness and scientific correctness." Annotated entries are by date, but there is a search engine to search across the site's entire content.

[Internet Directory for Botany \(IDB\)](#)

<http://www.botany.net/IDB/>

This website originated in the early days of the internet as an ambitious undertaking by several university scientists to identify all the useful botanical sites freely available. Although it is no longer regularly maintained, it can still be handy as a general index of webpages related to botany. Use the search engine, or browse the alphabetical links.

[The Virtual Library of Botany/Plant Biology \(Biosciences\)](#)

<http://www.ou.edu/cas/botany-micro/www-vl/>

A worldwide directory of resources related to botany and plant science. Includes extensive links to journals, societies, government agencies, laboratories, universities, and gardens.

Selected Electronic Reference Resources

[Access Science](#)

McGraw-Hill 2000-2004

This is the *McGraw-Hill Encyclopedia of Science & Technology Online*. Browse by topic or alphabetically or search by word or phrase. Includes data, tables, tools, study guides, bibliographies, a dictionary, biographies, and news articles for subjects relating to plant science/botany, e.g., algae, lichens, plant pathology, agriculture, and forestry and soils. Also contains updates from the *McGraw-Hill Yearbooks*.

[Dictionary of Plant Sciences](#), 2nd ed.

Oxford Reference Online Premium 1998

A comprehensive dictionary of botany with over 5,500 entries covering topics including plant physiology, cytology, ecology, and genetics. There is worldwide coverage of taxonomic groups - one-third of the entries are devoted to taxa, from bacteria and fungi to the main groups of flowering and non-flowering plants. Edited by Michael Allaby, General Editor of *The Oxford Dictionary of Natural History*, from which many entries were derived. Revised edition of *Concise Oxford Dictionary of Botany* (1992).

[Collins Dictionary of Biology](#), 2nd ed.

xreferplus 2006

The 1995 edition of the Dictionary covering all biology fields including botany. Good for short definitions in botany and plant science. A 1991 edition, the *HarperCollins Dictionary of Biology*, is also available in Sawyer Reference, call no. QH302.5 H34.

[English-Spanish Dictionary of Plant Biology](#)

ebrary, inc. 2003

This title, co-authored by David Warren Morris and Marta Zetina Morris, covers plantae, monera, and fungi and includes an index of Spanish equivalents.

[Biographical Dictionary of American and Canadian Naturalists and Environmentalists](#)

Greenwood Digital Collection 2006

This title includes biographies of botanists.

[Plant Sciences](#)

Gale Virtual Reference Library 2001

This 4 volume set, in an encyclopedic format, is an extensive collection of about 280 articles on topics ranging from "acid rain to wood products." Well illustrated with many color photographs and line drawings. Also available in Sawyer Reference, call no. QK49.P52 2001.

Selected Print Reference Resources

[An Atlas of Plant Structure](#) Repr.1977

REF QK641 .B7 1971

This two volume work provides photographs and line drawings useful for interpreting lab specimens.

[Botany Illustrated](#)

REF QK45.2 .G57 1984

An "introduction to plants, major groups, flowering plant families," consisting mostly of black and white drawings by Janice Glimn-Lacy and Peter B. Kaufman of the University of Michigan.

[Cambridge Illustrated Glossary of Botanical Terms](#)

REF QK9 .H53 2000

A "pictorial" dictionary of botany terminology in two sections: the first with over 2400 terms relating to vascular plants and the second with line drawings grouped by features such as shapes

and structures. Compiled by Michael Hickey and Clive King, Cambridge University Botanical Garden, England.

[CRC Handbook of Medicinal Herbs](#)

REF RS164 .D83 2001

Written by Dr. James A. "Jim" Duke, formerly Chief of the USDA's Medicinal Plant Resources Laboratory (see his website [Dr. Duke's Phytochemical and Ethnobotanical Databases](#)), this is a reprint of the CRC handbook originally published in 1985. Covers 365 folk medicinal species, including many "borderline herbs," with descriptions of use, toxicity, and common and scientific names.

[Encyclopedia of Endangered Species](#)

REF QH75 .E49 1994

Covers endangered plant and animal species. Includes black-and-white photographs of the species.

[Encyclopedia of Life Sciences](#)

REF QH302.5 .E54 2002

This comprehensive, up-to-date, twenty volume set from Nature Publishing Group, London, includes peer-reviewed articles with excellent illustrations and detailed diagrams. The main section on Plant Sciences in Volume 14 contains over 300 pages on topics from "Plant Alkaloids" to "Plant - Water Relations." Other relevant sections, e.g. on ecology, can be found through its "exhaustive" subject index, alphabetical table of contents, or the "Topical Index" of major subject areas.

[Flora of the Northeast](#)

REF QK121 .M34 1994

This is "a manual of the vascular flora of New England and adjacent New York." Contains extensive line drawings and maps to help in the identification of plants and their locations.

[Manual of Cultivated Plants Most Commonly Grown in the Continental United States and Canada](#) Rev. ed.

REF QK110 .B3 1949

A classic work on plant identification with detailed descriptions, e.g., petal numbers, locations. Compiled by L.H.Bailey, one of the first in a long line of distinguished botanists from Cornell University, and the staff of the Bailey Hortorium at Cornell.

[PDR for Herbal Medicines](#) 3rd ed.

REF DESK RM666. H33 P37 2004

This *Physicians' Desk Reference* contains over 700 "herbal monographs" describing botanical herbs that can be identified through several indexes including an alphabetical index, an indications index, an Asian indications index, and a side effects index. Also includes an "Herb Identification Guide" with full-color photographs of over 300 medicinal plants.

[Popular Encyclopedia of Plants](#)

REF SB107 .P67 1982

An A-Z "illustrated guide to the main species of plants used by Man," with over 700 color photographs. Contains over 2200 articles, including "special feature articles" on "economic botany" topics such as beverage plants, fruits, and oil crops.

[Scientific and Common Names of 7,000 Vascular Plants in the United States](#)

REF QK96 .B68 1995

Written by Lois Brako, Missouri Botanical Gardens/University of Missouri, and Amy Y. Rossman and David F. Farr of the U. S. Department of Agriculture, and published by The American Phytopathological Society. This title is divided into 4 parts: Vascular Plant Names, Common Name Index, Synonyms, and Families and Genera. It is publication No.7 in the series *Contributions from the U. S. National Fungus Collections*.

[Shorter Dictionary of Gardening](#)

REF SB450.95 .P65 1998

Published by The Royal Horticultural Society of Great Britain, this is an abridged, but still comprehensive, version of the 4 volume *New RHS Dictionary of Gardening* (1992). Beautifully illustrated with black and white drawings and color photographs, including seasonal pictures of gardens in England and some other countries, it covers the "ornamental and culinary plants."