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Updating a Classic: First Sections of *New Manual of Vascular Plants of Northeastern United States and Adjacent Canada* Now Available from NYBG Press

Fully Revised for the First Time since the 1991 Gleason and Cronquist *Manual*, New Online Scientific Treatments of Plant Species will be Invaluable Conservation Resources



American Featherfoil, *Hottonia inflata* (Primulaceae)



Pine Barrens Gentian, *Gentiana autumnalis* (Gentianaceae)

Bronx, NY—Initiating a major, multi-year revision of an authoritative scientific work, the first updated sections of a manual that is vital to the conservation of plant species in the northeastern United States and parts of Canada are now available online from The New York Botanical Garden Press.

With treatments of such familiar and important plant families as lilies, walnuts, poppies, primroses, bromeliads, and sycamores, these sections are the first published content of the *New Manual of Vascular Plants of Northeastern United States and Adjacent Canada* by Robert F. C. Naczi, J. Richard Abbott, and Collaborators. Thirty-four family treatments are available individually as downloadable PDFs.

This first installment will be followed annually with additional new and revised family treatments until all of the plant families found in the region—about 230 families comprising an estimated 5,300 species—are available online. At that point, the contents will also be published as a hardcover book.

The New Manual treatments will allow scientists, land-use officials, conservationists, students, nature-enthusiasts, gardeners, and others to identify any of the vascular plants—that is, plants with vessels for conducting water and nutrients—that are established in the northeastern quadrant of the United States and neighboring sections of Canada, a vast territory that encompasses all or parts of 22 states and five Canadian provinces. In addition to providing such traditional floristic information as the identifying characteristics, classification, geographic range and habitat for every species in the region, the New Manual treatments also include the conservation status of species and the invasiveness of non-native plants, data not found in previous versions of the manual.



Turk's Cap Lily, *Lilium superbum* (Liliaceae) All photos by Robert F. C. Naczi, Ph.D.

"The New York Botanical Garden has a long and distinguished history of research and publication on the plants of northeastern North America, stretching back to the Garden's founding Director-in-Chief, Nathaniel Lord Britton, who published an illustrated flora of the region's plants in 1896," said NYBG Press Director Brian M. Boom, Ph.D., who is also the Garden's Vice President for Conservation Strategy, Director of Science Outreach, and Basset Maguire Curator of Botany. "Given this rich lineage, it is especially fitting that the first treatments of the *New Manual* have been published as the Garden celebrates its 125th Anniversary in 2016."

This ambitious undertaking, involving many collaborators who are specialists in certain plant families, comes at a critical time. The flora of the region's spontaneous plants—species that grow on their own without cultivation—is undergoing unprecedented change, including increases in non-native species and declines in many native plants. Identifying plants accurately, understanding their place in an ecosystem, and determining their conservation status are indispensable to protecting vulnerable plant species and preserving biodiversity.

"We expect the *New Manual* will be an essential tool for effective, science-based conservation action in the northeastern U. S. A. and adjacent Canada during this time of floristic change," Dr. Naczi wrote in a paper published recently in the botanical journal *Brittonia* that describes the *New Manual* project.

The New Manual is a full revision of NYBG Press' classic Manual of Vascular Plants of Northeastern United States and Adjacent Canada, Second Edition, by Henry A. Gleason and Arthur Cronquist, published in 1991. Often referred to simply as "Gleason and Cronquist," the Manual is widely considered the foremost guide to the plants of the region.

In the 25 years since the Gleason and Cronquist *Manual* was published, however, there have been many significant developments in plant science. Advances in molecular systematics, which classifies an organism using information gleaned from its DNA, have revolutionized scientists' understanding of the evolutionary relationships among plants. Many new tools—such as several new floras for states and regions within the northeastern U. S. and neighboring Canadian territory, online atlases, and new databases—have improved access to information about plant distribution and nomenclature. Finally, research on invasive species has increased significantly, and botanists have discovered new species or new locations of existing species within the region.

For all of these reasons, Dr. Naczi has found that, comparing a sample of the families that have been completed for the *New Manual* with those families in the Gleason and Cronquist *Manual*, the *New Manual* so far contains an average of 21 percent more named plants.

"Given the dramatic increase in botanical knowledge and understanding since 1991, the time is ripe for a new floristic manual," Dr. Naczi said.

About The Principal Authors of the New Manual

Robert F. C. Naczi, Ph.D., is the Arthur J. Cronquist Curator of North American Botany at The New York Botanical Garden. His research focuses on the flora of the eastern United States, the sedges (Cyperaceae), and the Western Hemisphere pitcher plants (Sarraceniaceae). Before joining the Garden in 2008, he was a university professor for 16 years and frequently used the Gleason and Cronquist *Manual* as a textbook. His fieldwork has given him first-hand knowledge of the flora of much of North America.

J. Richard Abbott, Ph.D., is a Research Associate at The New York Botanical Garden, where he works primarily on updating the *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. He has studied and collected plants across the United States and in 20 countries, especially Latin America.

Advance Praise for the New Manual

"I will no longer have to use numerous pieces of literature to identify some of the species that grow in our region. The descriptions are concise yet elaborate enough to get a clear understanding of the species. Clearly the parts of the *New Manual* that are being released are a must-have for all those interested in the flora of our region."

—David Werier, Recent Past-President, New York Flora Association

"The botanical treatments will be particularly useful for American and Canadian botanists as well as other scientists, naturalists, ecologists, foresters, conservationists, and students in all

fields of natural history, as well as public or private organizations involved in environmental and plant protection. This new edition is very welcome, and the editors and the numerous authors deserve praise."

—Jacques Cayouette, Ph.D., Research Scientist, Agriculture and Agri-Food Canada; Assistant Curator, Department of Agriculture Ottawa Herbarium

About The New York Botanical Garden Press

Since 1896 The New York Botanical Garden Press (<u>nybgpress.org</u>) has been publishing books and journals based on original research by scientists from around the world. The mission of NYBG Press is to put information in the hands of those engaged in exploring, understanding, and conserving plants and fungi. Areas of focus include floristics, systematics, economic botany, ecology, evolution, conservation, and ethnobotany. A growing list of books for general readers includes field guides and botanical history.

Ordering Information: The first 34 family treatments of *New Manual of Vascular Plants of Northeastern United States and Adjacent Canada* are available as downloadable PDFs through NYBG Press. Price per family treatment ranges from \$2.99 to \$4.49. To order, go to nybgpress.org or call 718.817.8721.

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The New York Botanical Garden is a museum of plants, an educational institution, and a scientific research organization. Founded in 1891, the Botanical Garden is one of the world's preeminent centers for studying plants at all levels, from the whole organism down to its DNA. Garden scientists conduct fundamental research on plants and fungi globally, as well as on the many relationships between plants and people. A National Historic Landmark, the Garden's 250-acre site is one of the greatest botanical gardens in the world and the largest in any city in the United States, distinguished by the beauty of its diverse landscape and extensive collections and gardens, as well as by the scope and excellence of its programs in horticulture, education, and science. Learn more: nybg.org

The New York Botanical Garden, 2900 Southern Boulevard, Bronx, New York 10458

The New York Botanical Garden is located on property owned in full by the City of New York, and its operation is made possible in part by public funds provided through the New York City Department of Cultural Affairs. A portion of the Garden's general operating funds is provided by The New York City Council and The New York State Office of Parks, Recreation and Historic Preservation. The Bronx Borough President and Bronx elected representatives in the City Council and State Legislature provide leadership funding.

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