

# Botany in 18<sup>th</sup> and 19<sup>th</sup> Century America ©

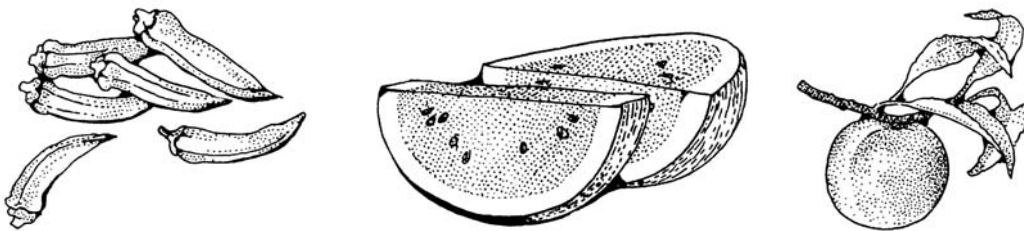
By: Victoria Rumble



Sketch from William Bartram's *Travels*, first published 1791

Dr. Francis Peyre Porcher is best known for his treatise, *Resources of the Southern Fields and Forests, Medical, Economical, and Agricultural*, published in 1863. When blockades cut off supplies no one was prepared for the degree of suffering that would enshroud the South, and it quickly became apparent substitution had to be found as quickly as possible for the multitude of medicinal, food, and household items that were suddenly unavailable.

The Confederate Surgeon-General appointed Dr. Porcher to write a report on various plants found naturally in the South instructing their many uses, with descriptions and instructions for harvesting, preserving, and shipping. Newspapers periodically carried tidbits of his findings encouraging citizens to search for and collect the various plants, use what they needed, and send the remainder to the army.



Typical substitutions from Porcher's *Resources*: okra seed "coffee", watermelon "syrup", and peach leaf "yeast". The peach is indicative of many plants which Porcher thought had multiple uses. He suggested using the peach roots, leaves, and kernels in a variety of culinary and medicinal ways including curing whooping-cough, dyeing fabric, raising bread dough, flavoring cordials, as an imitation vanilla, etc.

Porcher was born 14 Dec., 1825 in Berkeley Co., SC, and died 19 Nov., 1895. He is buried at Black Oak Cemetery, North Hampton Plantation, Berkeley Co. He graduated from SC College, then the Medical College of the State of South Carolina in 1847. This illustrious college retains the personal papers of Dr. Porcher and others who contributed to our knowledge of native plants.

He settled in Charleston where he held appointments of surgeon and physician to the marine and city hospitals, and during the war he was in charge of hospitals at Norfolk and Petersburg, VA. He was an editor for the *Charleston Medical Journal & Review* in the 1850's, and among his positions was President of the Medical Society of SC between 1874-5.

Porcher's published works include *A Medico-Botanical Catalogue of the Plants and Ferns of St. John's, Berkeley, South Carolina* (1847), *A Sketch of the Medical Botany of South Carolina* (1849), *The Medicinal, Poisonous, and Dietetic Properties of the Cryptogamic Plants of the United States* (1854), and *Illustrations of Disease with the Microscope and Clinical Investigations aided by the Microscope and by Chemical Reagents* (1861).

His *Resources* was revised and republished in 1869. It may have been this revision that Porcher was working on in 1869 when Adele Petigru Allston instructed her son in a letter dated 11 May, 1869 to locate his father's (Robert F. W. Allston, died 1864) "memoir on rice" for Dr. Porcher for "something" he planned for publication. Allston owned over 13,000 acres at the time of his death, much of which was used in growing rice.

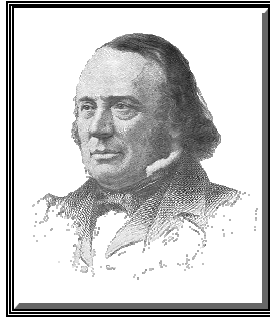
Porcher was a cousin of Henry William Ravenal, another American botanist who was born in Berkeley Co. 19 May, 1814. He graduated from SC College in 1832 and became a planter. He moved to Aiken in '53 and remained there until his death 17 July, 1887. He was fascinated with botany and spent his adult life studying the mosses, lichens, algae, fungi, etc. of SC, and edited the agricultural section of the *Weekly News and Courier*. He published a series of botanical papers and was so well versed in the botany of SC that a genus was named in his honor.



Image of Dr. Porcher, Charleston, SC.

Given Porcher's experience and the knowledge base he could depend on from his cousin, the scope of his qualifications in writing *Resources* becomes quickly apparent. In addition, a surprisingly wide range of previously published books and papers were at his disposal while compiling this work, not the least of which were the writings of early explorers regarding native peoples.

Among these were the works of such eminent collectors and authors as Linnaeus, John Evelyn, Gerard, Louis Agassiz (who served on the faculty for the SC School of Medicine 1852-3 and published extensively), Jane Colden, Mark Catesby (*The Natural History of Carolina, Florida, and the Bahama Islands*), John and William Bartram, Humphrey Marshall (cousin of Bartram and author of *Arboretum Americanum, the American Grove, or, An Alphabetical Catalog of Forest Trees Native of the Americas* pub. 1785), Andre Michaux, etc.



Louis Agassiz

Jane Colden was born in New York in 1724, died 1766, and is considered "America's first great woman scientist". Her father, a politician, harbored a keen interest in science and after observing a natural interest in botany in his young daughter he devoted his time toward teaching her about science and natural history. Colden was one of the first to master the system of plant classification developed by the Swedish botanist Carolus Linnaeus. Much of Jane's work (approximately 300 plants), compiled in the 1750's, was done on the extensive acreage of their New York estate, and her original manuscript, with drawings, has been housed in the British Museum in London. Her *Illustrated History of New York* was published in 1749.

John Bartram has been called America's first botanist. He collected specimens and introduced them into cultivation bringing them from the wild into the garden, and was appointed Botanist to the King in 1765. His son, William, took up where his father left off in his *Travels*, (pub. 1791) which became an overnight sensation translated into three languages. *Travels* also described animals, birds, and other wildlife, along with the foods, medicinal plants, dress, and customs of the Cherokees and other native peoples.



William Bartram

Andre Michaux was appointed Royal Botanist to America from France and through his work became a close friend of Bartram. He moved to Charleston and from there compiled his findings on American botany. In 1795 and 1796 he spent time at the East Tennessee farm of Col. John Tipton. This farm is today known as the Tipton-Haynes State Historic Site.

It shouldn't come as any great surprise that European countries had such an interest in the flora and fauna of the New World since plants discovered here directly influenced the rest of the world through medicinal extractions or other uses derived from them.

The friendship of Michaux and Bartram is typical of that of most of the early botanists and scientists who benefited from those formed alliances. Colden was a personal friend of such brilliant men as Ben Franklin, Peter Kalm, and the Bartrams.

Jane Colden was only one of several Colonial era women who braved the outdoors in order to write and illustrate books of natural history subsequently paved the way for today's outdoors woman. Martha Laurens Ramsey (1759-1811) experimented with growing olives as a cash crop, and her diary and letters were published by her husband, David, upon her death. Martha Daniell Logan (1704-1799) was one of the first American women involved in horticulture and wrote what has been called America's first treatise on gardening, the *Gardener's Kalendar* in 1752. Mary Townsend, sister of ornithologist John Kirk Townsend, published *Life in the Insect World* in 1844.

Lucy Say, the first woman to be elected a member of the Academy of Natural Sciences of Philadelphia, made 66 of the 68 drawings in her husband's book on North American mollusks - Thomas Say's *American Conchology*. After Thomas' death Lucy returned to New York, which after the freedom of the outdoors during the work on nature, she found too confining, and wrote how she yearned for the freedom she enjoyed on the banks of the Wabash. She once calmly wrote about a copperhead snake that visited the clearing around her little cabin joining the ranks of an illustrious group of fearless and capable female outdoors enthusiasts.

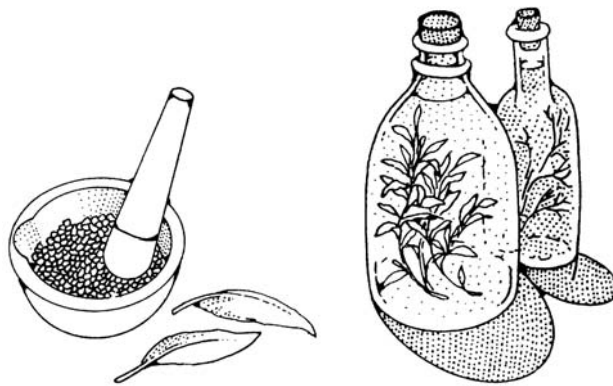
These are only a few of the pioneers who documented the plants, animals, birds, and mollusks found in the U.S. prior to Porcher's work, yet it is evident in this brief summary

that the scope of their work is amazing in its complexity and detail, and the extent to which it assisted Dr. Porcher in publishing his grand 1863 treatise.

Over time even the contributions of his great grandfather, Thomas Walter, an English botanist who made a study of the plant life in SC during the 18<sup>th</sup> century, have been overshadowed by the massive volume of *Resources*, which no doubt drew heavily on Walter's research. Walter published *Flora Caroliniana* in 1788.

The list of antebellum works cited in the treatise is three and a quarter pages long, much of it in paragraph (compressed) form, books published around the world, many sources reflecting the contributions of Europeans in using various plants as substitutions for more expensive or difficult to obtain products such as coffee or tea. Some of the entries in the treatise filtered down from housewives who lived through the Revolutionary War.

Though Dr. Porcher didn't "start from scratch" and discover the uses of these plants during the course of a few months he did accomplish a remarkable task in compiling them all into one massive source which could be widely distributed throughout the South to guide citizens in searching for the plants and physicians in their uses. I speak in the plural since most every plant listed in the treatise was ascribed multiple advantages whether they were medicinal, culinary, or related to household use.



Dr. Porcher's treatise is now on-line at: <http://docsouth.unc.edu/impls/porcher/porcher.html>  
It should be noted plants in Porcher's treatise may now be considered unsafe for human ingestion.

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