

Humboldt State University Digital Commons @ Humboldt State University

Botanical Studies

Open Educational Resources and Data

2018

Mary Agnes Chase

James P. Smith Jr

Humboldt State University, james.smith@humboldt.edu

Follow this and additional works at: https://digitalcommons.humboldt.edu/botany_jps

 Part of the [Botany Commons](#)

Recommended Citation

Smith, James P. Jr, "Mary Agnes Chase" (2018). *Botanical Studies*. 81.
https://digitalcommons.humboldt.edu/botany_jps/81

This Grasses: General is brought to you for free and open access by the Open Educational Resources and Data at Digital Commons @ Humboldt State University. It has been accepted for inclusion in Botanical Studies by an authorized administrator of Digital Commons @ Humboldt State University. For more information, please contact kyle.morgan@humboldt.edu.

MARY AGNES CHASE (1869–1963): FROM ILLUSTRATOR TO DEAN OF AMERICAN AGROSTOLOGISTS

**James P. Smith, Jr.
Professor Emeritus of Botany
Department of Biological Sciences
Humboldt State University
Arcata, California**

17 February 2018

Mary Agnes Chase was born in 1869. Her father died when she was quite young, which unfortunately put her and her family on a pathway of financial insecurity that precluded higher education. In 1903, shortly after the death of her husband, Agnes Chase moved to Washington, D. C. as a scientific illustrator for the Department of Agriculture. Botany was an acceptable career for women in those days, especially if it meant becoming a botanical illustrator. Becoming a real botanist who explored for plants, described new species, and published papers was an entirely different matter. In 1905, she started to work for Albert Spear Hitchcock, one of the country's leading botanists and a world-renowned expert on the grasses. Being a person of great intelligence and sensitivity, she fell in love with grasses. So began a distinguished botanical career of her own. She became Hitchcock's scientific collaborator and was a major force behind the publication of *The Manual of Grasses* in 1935. Chase was an avid field botanist, often paying for collecting trips with her own money. She retired as Senior Botanist at the Smithsonian in 1939, having become the successor to Hitchcock. She stayed on as an unsalaried research scientist, working five or six days a week, until her death in 1963.

One of her greatest accomplishments was the revision of *The Manual*, which appeared in 1951. Many of us, wanting to give her the recognition that she deserved, always call it "Hitchcock and Chase." A year before her death, Chase and Cornelia Niles published the *Index to Grass Species*, a photographic reproduction of about 80,000 index cards that showed where the scientific names of grasses were first published and additional items of nomenclature. Admittedly, it was not an instant best-seller, but for those of us who delve into this arcane subject, the *Index* is an invaluable resource. I am not sure that any other major plant or animal group ever had such a reference.

Her pen and pencil illustrations have been preserved in the Hitchcock-Chase Collection of Grass Drawings at the Hunt Institute for Botanical Documentation of the Carnegie Mellon University. If you look carefully, you will discover that a number of the beautiful grass illustrations in the two volumes of the *Flora of North American North of Mexico* are reproductions of her originals.

In her later years, Mrs. Chase might have been seen as the type specimen of the pleasantly eccentric little old lady. She even brought in home-made cookies for her colleagues in the Herbarium. But as a young woman she was not all that shy and retiring. She was a suffragette and a pacifist. On two occasions she was jailed for helping at the public burning of copies of speeches by President Woodrow Wilson and for picketing across the street from the White House in support of a woman's right to vote. She went on a hunger strike, was force fed, but apparently not subjected to enhanced interrogation. She was active in a number of suspect organizations with questionable objectives – the Women's Party, the Women's Christian Temperance Union, the National Association for the Advancement of Colored People, the Socialist Party, the Fellowship of Reconciliation, and the Women's International League for Peace and Freedom. She was opposed to the use of alcohol and tobacco. Government officials in the U. S. D. A. raised the issue of her continued employment. Her boss, A. S. Hitchcock, came immediately to her defense. The crisis passed. She would spend the rest of her life defending and supporting women's causes, particularly in attracting more women into the sciences.

TIMELINE

- 1869 Born in Iroquois County, Illinois
1888 Marries William Ingraham Chase, who dies a year later of tuberculosis
1890 Hired by the Inter-Ocean newspaper in Chicago as proofreader and typesetter
1897 Begins her formal recording of her collections; begins collaboration with minister-botanist E. J. Hill
1900 Illustrates plants in C. F. Millspaugh's *Plantae Utowanae* for the Field Museum of Natural History
1901 Hired by the U. S. D. A. as a meat inspector in the Chicago stockyards (-> 1903)
1903 Illustrates plants in C. F. Millspaugh's *Plantae Yucatanae* for the Field Museum of Natural History (->1904)
1901 Hired as Assistant in botany at the Field Museum in Chicago
1903 Moves to Washinton, D. C. and is hired as botanical illustrator by the U. S. D. A.
1905 Begins association (artist → scientific colleague) with A. S. Hitchcock
1907 Appointed by Hitchcock as Scientific Assistant in Systematic Agrostology
1911 Excluded from expeditions to Panama because of her gender
1913 Collecting trip to Puerto Rico, her first extended foreign trip
1915 Spends 10 days in jail for helping to burn copies of President Woodrow Wilson's speeches
1918 Arrested a second time for attending a rally in Lafayette Square picketing the White House
1922 Visits European herbaria and museums (-> 1923)
1923 Promoted to Assistant Botanist
1924 Collecting trip to Brazil
1925 Appointed Associate Botanist
1929 A second collecting trip to Brazil; scales Mt. Aconcagua, the highest in South America
1935 A second trip to European herbaria
1936 Appointed Senior Botanist in charge of all Systematic Agrostology
1937 Appointed custodian of the Section of Grasses at the U.S. National Museum
1939 Retires, but stays on as Research Associate at the U. S. National Museum
1940 Collecting trip to Venezuela, her last major expedition
1956 Receives Certificate of Merit from the Botanical Society of America
1958 Receives honorary Doctor of Science from the University of Illinois, her only college degree
1959 Made the eighth Honorary Fellow of the Smithsonian Institution
1961 Becomes Fellow of the Linnean Society of London
1963 Dies in Bethesda, Maryland; her ashes are interred beside her husband's grave.

PUBLICATIONS

- | | |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1897. Illustrations in Lamson-Scribner, F. American grasses. Bull. Div. Agrostology, U. S. D. A. 7: 1-331. | 1908. Notes on genera of Paniceae. III. Proc. Biol. Soc. Washington 21: 175-118. |
| 1900. Illustrations in Millspaugh, C. F. <i>Plantae Utowanae</i> . Field Columbian Museum. Bot. Series No. 50: 113-124. | 1908. Notes on cleistogamy in grasses. Bot. Gaz. 45: 135, 136. |
| 1903. Illustrations in Millspaugh, C. F. <i>Plantae Yucatanae</i> . Field Mus. Bot. 3: 15-84. | 1908. Text-figures in Gray's new manual of botany. Rhodora 10: 207, 208. |
| 1904. Chase, A. & Millspaugh, C. F. <i>Plantae Yucatanae</i> . Field Mus. Bot. 3: 85-151. | 1910. Hitchcock, A. S. & A. Chase. The North American species of <i>Panicum</i> . Contr. U. S. Natl. Herb. 17(6): 1-396. |
| 1904. The North American allies of <i>Scirpus lacustris</i> . Rhodora 6: 65-71. | 1911. The subterranean organs of <i>Cinna arundinacea</i> . Rhodora 13: 9, 10. |
| 1906. Notes on genera of Paniceae. I. Proc. Biol. Soc. Washington 19: 183-192, her first scientific paper | 1911. Notes on genera of Paniceae. IV. Proc. Biol. Soc. Washington 24: 103-160. |
| 1908. Notes on genera of Paniceae. II. Proc. Biol. Soc. Washington 21: 1-10. | 1911. Ornithological observations on cleistogamy. Rhodora 13: 76. |

1911. Amateur botanical illustrating. *Rhodora* 13: 93-95.
1914. An unwelcome invader. *Bromus villosus* Forsk. (*Bromus maximus* Desf.) *Rhodora* 16: 166.
1914. Field notes on the climbing bamboos of Porto Rico. *Bot. Gaz.* 58: 277-279.
1915. Hitchcock, A. S. & A. Chase. The tropical North American species of *Panicum*. *Contr. U. S. Natl. Herb.* 17(6): 459-539.
1916. The structure of the spikelet of *Aphanelytrum*. *Bot. Gaz.* 61: 340-343.
1917. Hitchcock, A. S. & A. Chase. Grasses of the West Indies. *Contr. U. S. Natl. Herb.* 18(7): 261-471.
1917. Rev. E. J. Hill. *Rhodora* 19: 61-69.
1918. Axillary cleistogenes in some American grasses. *American J. Bot.* 5: 256-258.
1919. Some causes of confusion in plant names. *J. Forestry* 17(2): 159-162.
1920. The North American species of *Brachiaria*. *Contr. U. S. Natl. Herb.* 22(1): 33-44.
1920. The North American species of *Cenchrus*. *Contr. U. S. Natl. Herb.* 22(1): 45-77.
1921. The North American species of *Pennisetum*. *Contr. U. S. Natl. Herb.* 22(4): 209-234.
1921. The Linnaean concept of pearl millet. *American J. Bot.* 8: 41-49.
1921. Gramineae. *In*, Standley, P. C. *Flora of Glacier National Park*. *Contr. U. S. Natl. Herb.* 22(5): 280-294.
1922. First book of grasses: the structure of grasses explained for beginners. Macmillan. New York, NY. 121 pp.
1923. Visit to European herbaria. *Smithsonian Misc. Coll.* 74: 80-82.
1923. The identification of Raddi's grasses. *J. Washington Acad. Sci.* 13: 167-179.
1923. *Pennisetum vulcanicum* Chase. *J. Washington Acad. Sci.* 13: 363.
1923. *Paspalum botteri*, *Syntherisma fiebrigii*. *In*, Standley, P. C. *New species of plants of Salvador*. *J. Washington Acad. Sci.* 13: 436.
1924. A new species of *Panicum* found in alfalfa seed. *J. Washington Acad. Sci.* 14: 343-345.
1924. *Actachne*, a cleistogamous grass of the high Andes. *J. Washington Acad. Sci.* 14: 364-366.
1925. Collecting grasses in Brazil. *J. New York Bot. Gard.* 26: 196-198.
1925. Introduction and botanical notes. *In*, Niles, C. D. *A bibliographic study of Beauvois' agrostographie*. *Contr. U. S. Natl. Herb.* 24: 135-214.
1925. Poaceae. *In*, Tidestrom, I. *Flora of Utah and Nevada*. *Contr. U. S. Natl. Herb.* 25: 61-98.
1926. Botanical expedition to Brazil. Explorations and field-work of the Smithsonian Institution in 1925. *Smithsonian Misc. Coll.* 78. Pp. 48-54.
1927. New grasses from Panama. *J. Washington Acad. Sci.* 17: 142-147.
1927. Eastern Brazil through an agrostologist's spectacles. *Smithsonian Rep.* 1926: 383-403.
1927. *Calamagrostis leonardi* and *Leptochloa monticola*. *In*, Leonard, E. C. *Fourteen new species of plants from Hispaniola*. *J. Washington Acad. Sci.* 17: 72, 73.
1927. Chase, A. & A. W. Sampson. Range grasses of California. *Univ. California Exp. Stat. Bull.* No. 430. 94 pp.
1928. Native ornamental grasses. *Natl. Hort. Mag.* 7: 9-11.
1929. The North American species of *Paspalum*. *Contr. U. S. Natl. Herb.* 28: 1-310.
1931. [Description of] *Paspalum longum*. *In*, Johnston, I. M. *Flora of the Revillagigedo Islands*. *Proc. California Acad. Sci.* IV. 20: 52, 53.
1933. A new grass of Texas. *J. Washington Acad. Sci.* 23: 137, 138.
1935. Studies in the Gramineae of Brazil. *J. Washington Acad. Sci.* 25: 187-190.
1935. [Description of] *Paspalum redundans*, *P. galagageium*, and *P. galagageium* var. *minoratum*. *In*, Hitchcock, A. S. *New species of grasses from the Galapagos and the Revillagigedo Islands*. *Proc.*

California Acad. Sci. IV. 21: 297, 299, 300.

1936. Illustrations in Swallen, J. R. The grasses of British Honduras and Petén, Guatemala. Carnegie Inst. of Washington.

1937. Notes on types of North American grasses. American J. Bot. 24: 33-35.

1937. First book of grasses. Second edition. W. A. Silveus. San Antonio, TX. 125 pp.

1937. Arthraxon hispidus var. cryptatherus (Hack.) Honda in Pennsylvania. Rhodora 39: 100.

1937. New species of Paspalum from tropical America. J. Washington Acad. Sci. 27: 143-146.

1938. The carpet grasses. J. Washington Acad. Sci. 28: 178-182.

1938. New grasses from Oregon. J. Washington Acad. Sci. 28: 51-55.

1939. Hitchcock, A. S., J. R. Swallen, & A. Chase. Poaceae. North American Flora 17(8): 543-638.

1939. Papuan grasses collected by L. J. Brass. J. Arnold Arboretum 20: 304-316.

1939. Genera 130-136 of Poaceae. North American Flora 17: 568-579.

1939. Paspalum setiglume. *In*, Gleason, H. A. & E. P. Killip. Flora of Mount Auyan-Tepui. Brittonia 3: 150-152.

1940. Report to the Minister of Agriculture of Venezuela. Forage Crop Gaz. 4: 7-10.

1940. Studying the grasses of Venezuela. Explor. Field-Work Smithsonian Inst. 1940: 61-66.

1943. Papuan grasses collected by L. J. Brass. 2. J. Arnold Arboretum 24: 77-89.

1943. New grasses from South America. J. Washington Acad. Sci. 33: 316, 317.

1944. Grasses of Brazil and Venezuela. Agriculture in the Americas 4: 123-126.

1946. Enneapogon desvauxii and Pappophorum wrightii, an agrostological detective story. Madroño 8: 187-189.

1950. Pogonatherum Beauv. J. Arnold Arboretum 31: 130-132.

1951. Manual of the grasses of the United States. Revised edition. Misc. Publ. No. 200. U. S. Dept. of Agric. Washington, D. C.

1951. Sampson, A. W., D. W. Hedrick, & A. Chase. California grasslands and range forage grasses. Univ. California Exp. Stat. Report No. 724. Pp. 5-131.

1952. New species of grasses from Venezuela. J. Washington Acad. Sci. 42: 122-124.

1959. First book of grasses. Third edition. Smithsonian Inst. Washington, D. C. 127 pp.

1962. Chase, A. & C. Niles. Index to grass species. Three vols. G. K. Hall. Boston, MA.

BIBLIOGRAPHY

Cooper-Freytag, L. J. 1997. Mary Agnes Chase (1869-1963). *In*, Grinstead, L. S. et al. Women in the biological sciences: a biobibliographic sourcebook. Greenwood Press. Pp. 70-74.

Faust, T. R. 1996. Mary Agnes Meara Chase. *In*, Shearer, B. F. & B. S. Shearer. Notable women in the life sciences: a biographical dictionary. Greenwood Press. Pp. 63-67.

Fosberg, F. R. & J. R. Swallen. 1959. Agnes Chase. Taxon 8(5): 145-151.

Henson, P. M. 1996. [Agnes Chase]. *In*, Clark, L. G. & R. W. Pohl. Agnes Chase's first book of grasses. Fourth edition. Smithsonian Inst. Washington, D. C. Pp. xiii-xviii.

Henson, P. M. 2003. What holds the earth together: Agnes Chase and American agrostology. J. History of Biology 36: 437-460.

Isely, D. 1994. Mary Agnes Chase (1869-1963). One hundred and one botanists. Iowa State Univ. Press. Ames. Pp. 303-305.

Stieber, M. T. 1980. Chase, Mary Agnes. *In*, Notable American women: the modern period. Belknap Press. Harvard Univ. Cambridge, MA. Pp. 146-148.