

and GRAY, Asa. A flora of Nor  
description of all the known indi  
rowing north of Mexico; arranged  
N. Y. Wiley & Putnam, 1838-  
711 p.; v. 2, 1841-43. 504+ [2]  
publication of the various parts of  
therine Brongniart in Zool. v. 4,  
b. 21, 1834; as follows:  
1, p. 1-184, July, 1838.  
2, p. 185-360, Oct.  
3, p. 361-644, June, 1840.

## Asa Gray Saves Farlow for Harvard

A. Hunter Dupree

In 1879, William Gilson Farlow, discontented with a teaching position split between Cambridge and Jamaica Plain and threatened with transfer entirely to the latter place, was about ready to decamp for the newly founded Johns Hopkins University. Asa Gray, although retired from teaching at Harvard in 1873, still kept a watchful eye on the fortunes of botany at the university. In my biography of Asa Gray (first published in 1959) I say, "Farlow was mollified even though Gray had to offer to put up \$200 of his own money to do it." Behind this casual remark lies a story of institutional transition that sheds light on the development of the Farlow Herbarium, of Harvard University, and of the American university system as a whole. Farlow was saved for Harvard. Returning to Cambridge with the title of professor of cryptogamic botany, he was on his way to the career for which he is remembered both as a scientist and an institution builder.

When Farlow graduated from Harvard College in 1866, Gray gave him the standard advice to go to medical school because the chances of employment in botany were so small. Farlow did indeed study medicine, but when he returned to Cambridge to be Gray's assistant in 1870, important

changes were underway. Charles William Eliot had become President of Harvard in 1869 and was already thinking of replacing the rigidly required curriculum with an elective system.



Ever Dear Farlow  
Yours  
Asa Gray  
Thanks for your photo.  
Very nice! How your moustache  
sets you off!

W.G. Farlow portrait sent from Europe to Asa Gray and portion of Gray's acknowledgement in a letter to Farlow in March of 1873: "Thanks for your photo. Very nice! How your moustache sets you off!" (Courtesy of the Gray Library)

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Only dimly seen at the time, the elective system in the colleges produced a rapid increase in the demand for professors more specialized than their predecessors. Universities such as Harvard expanded from the concept of a single professor for each discipline to a series of multi-professor departments that were open-ended to changing demands both in numbers and subjects. Asa Gray, anxious to be relieved of routine teaching to devote himself to the Flora of North America, quickly grasped the new strategy and began to make plans to replace himself not with one professor but with four. From 1870 onward Gray had in mind that Farlow would be one of the four and that cryptogamic botany would be his specialty.

Although prompt in going to the elective system, the new President Eliot was much less sure-handed in starting a real graduate school, another implication of his reforms. Gray had to improvise to find his four professors. Farlow as his assistant during 1870-72 had to learn what he could informally, with help coming from D. C. Eaton of Yale and from the U. S. government's Fish Commission, under whose auspices Farlow collected algae at Woods Hole in the summer of 1871. Because the aspiring botanist had major financial support from his family, more strategic possibilities were open to him than to some of the others. Gray could therefore suggest to Farlow that he go to Germany to study with the leading authority in his field, Anton de Bary of Strasbourg, sometimes called the first and foremost plant morphologist in the world.

During his two years in Europe, Farlow gained competence in the latest laboratory techniques without losing a central focus on the taxonomy of the cryptogams. Gray for his part provided introductions to the best European botanists, carefully selected for what they could offer the young American. He was, however, thinking in larger terms. From the 1840's onward Gray had delegated the analysis and collection building to amateurs -- in mosses to William S. Sullivant of Ohio, in lichens to Edward Tuckerman of Massa-

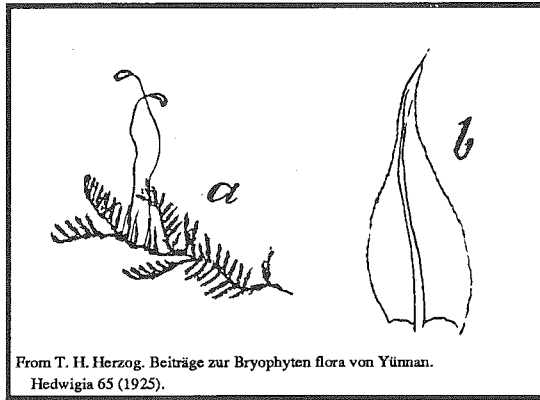
chusetts, and in fungi to Moses Ashley Curtis of North Carolina. Sullivant's herbarium had already come to Harvard as a gift, and in 1873 the widow of Curtis wanted to sell all of his collection. Gray, failing to find a donor and unable to afford it himself, offered Farlow the chance to buy, thus giving a graduate student a capital stake in Harvard botany. Although Gray could never tell whether Eliot listened to his recommendations, he fought off the President's effort to get a European star and then pushed ahead for an assistant professorship for Farlow.

Farlow did indeed get the assistant professorship, but Eliot put him in part on the staff of the Bussey Institution. To reassure Farlow, Gray wrote on March 27, 1874, that "The President is getting a great idea of the importance of research -- & will see that you have a chance." This is a very early use of the word research in its modern sense as a part of a professor's duties. The division between Jamaica Plain and Cambridge, doubtless unsatisfactory to Farlow, might have gone on forever if Harvard had not been pushed by competition. The Johns Hopkins University was established in 1876 with research on the German plan as its watchword, and by March 1879 Farlow had an offer.

Although he had been formally retired in 1873, Gray immediately took up the negotiations between Farlow and Eliot as if he were a department chairman. The title of Professor of Cryptogamic Botany at a salary of \$2500 with all teaching in Cambridge was easy enough. Gray was concerned, however, that the University reimburse Farlow for the maintenance of his collections. Eliot insisted on his side that "the rule may apply that no scientific professor is to have a collection of his own." Gray's offer of \$200 to ease the transition evidently was successful. Farlow turned down the Hopkins offer and came back to Cambridge for the rest of his life. The Farlow Herbarium became an integral part of Harvard, and the study of cryptogamic botany has had a continuous presence in the university, both in teaching and research, ever since.

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A. Hunter Dupree is Professor Emeritus of History of Brown University. He is the author of *Science in the Federal Government: A History of Policies and Activities to 1940* (1957, reprinted 1986) and *Asa Gray: American Botanist, Friend of Darwin* (1959, reprinted 1988).



From T. H. Herzog. Beiträge zur Bryophyten flora von Yünnan. Hedwigia 65 (1925).

## FLORA OF CHINA

The Farlow Herbarium hosted on February 8 and 9 a meeting/workshop to discuss the plan and strategy for the first English version of a Moss Flora of China. The idea was initiated a year ago by Drs. Peter Raven and Marshall Crosby of the Missouri Botanical Garden. It was envisioned to be a long term collaboration between Chinese and non-Chinese bryologists who will study jointly the largest moss flora in Asia. The new flora, dealing with some 2200 species in 400 genera, will be published in four volumes with important synonymy and illustrations. The completed works could easily become an important floristic reference for Asiatic moss taxonomy and nomenclature.

To achieve the goal, an editorial committee consisting of five Chinese and five non-Chinese bryologists was earlier constituted. The non-Chinese members are Prof. Timo Koponen of the University of Helsinki, Prof. Zen Iwatsuki of the Hiroshima University, Prof. Dale Vitt of the University of Alberta, Dr. Marshall Crosby of the Missouri Botanical Garden and Dr. Benito C. Tan of the Farlow Herbarium. All five non-Chinese members were present at the meeting.

The meeting started with a warm welcome from Prof. D. Pfister who gave the support of the Farlow Herbarium administration to the project. The participants then discussed all aspects of the project proposal presented by B. Tan, including a projected ten-year timetable and an estimated annual budget of US\$150,000. The group agreed unanimously that Harvard University be the center of coordination for the project because of its extensive collections of bryological literature at the Farlow Library and the rich holding of type specimens and other important historical collections of Asiatic mosses at the Herbarium. The editorial committee further nominated B. Tan of the Farlow Herbarium, who is fluent in both English and Chinese languages, to be the official coordinator of the project.

The plan states that starting in 1992, over an initial period of five years, three bryologists from China be invited each year by the project center to bring their large moss collections to three designated foreign institutions to work with the non-Chinese collaborators. Within six months to one year, each team of one Chinese and one non-Chinese workers will revise and monograph together one to two large families of Chinese mosses. Already, the University of Helsinki has offered to host one such Chinese visitor each year.

The plan for the flora also includes new expeditions to the hinterlands and remote peripheries of China, where only few bryophyte specimens have been collected in the past. Initially, an expedition to the Xinjiang Autonomous Region bordering Pakistan and the Soviet Union to collect bryophyte specimens is being prepared. The resulting collections will be distributed outside of China by the Farlow Herbarium and the Missouri Botanical Garden.

All these activities will see a significant increase in Asiatic moss collections at the Farlow Herbarium and reinforce further the position of the Herbarium as one of the centers of world bryotaxonomical research.

BENITO C. TAN

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## FARLOW NOTES

Pavel Lizon spent several weeks at the Farlow Herbarium in January and February. He is visiting various herbaria in North America where he is studying fungi in the genus *Hymenoscyphus*, one of the genera of inoperculate discomycetes. Our collection of the genus is large and important because of the work previously done by William L. White. White was Professor and Director of the Farlow until his death in 1953. Lizon is head of the Botany Department at the *Slovenské národné múzeum* in Bratislava, Czechoslovakia.

The authors have received their personal copies of the long-awaited tome: Pfister, D.H., J.R. Boise and M.A. Eifler. *A Bibliography of Taxonomic Mycological Literature 1753-1821*, Mycological Memoirs no. 17. As other titles in the series, this book is available in the USA through Lubrecht & Cramer, Forestburgh, NY. The bibliography was prompted by the change in the nomenclatural starting point for fungal names approved at the Thirteenth International Botanical Congress in Sydney, Australia, 1981, which rendered this old, often ignored literature taxonomically valid. Annotations in the bibliography include notes on where a researcher might locate the original works, pagination of fungal sections and availability of microform editions. The study demonstrated many times over the quality and completeness of William Farlow's mycological collections.

Anyone who has visited the Farlow in cold weather can appreciate the relief brought to the staff with improvements in the Farlow's heating system this past year. The antiquated system of radiators had deteriorated to a level of inefficiency that instigated thermostat wars amongst the staff. Sweating office personnel who sought to lower the thermostat met blue-fingered library denizens vying to raise the thermostat setting. The building's heating system was thoroughly studied with much rapping of pipes to determine

its configuration. Then, the existing radiators were fitted with new valves and individual controls for heat output. The result is much more even heating throughout the building and a contented staff. The Reading Room has become a preferred meeting location within the Harvard University Herbaria.

Jean Boise, our voice from the library, wants the Friends to know that donations to the booksale are always welcome; there is no need to wait for Spring! Furthermore, members are reminded that they are entitled to a number of free photocopies each year, viz., photocopies of twenty pages or fewer from up to five book titles. Contact Jean with your requests.

### FARLOW VISITORS

(September 1990 - April 1991)  
Excluding members of the Harvard  
University Community

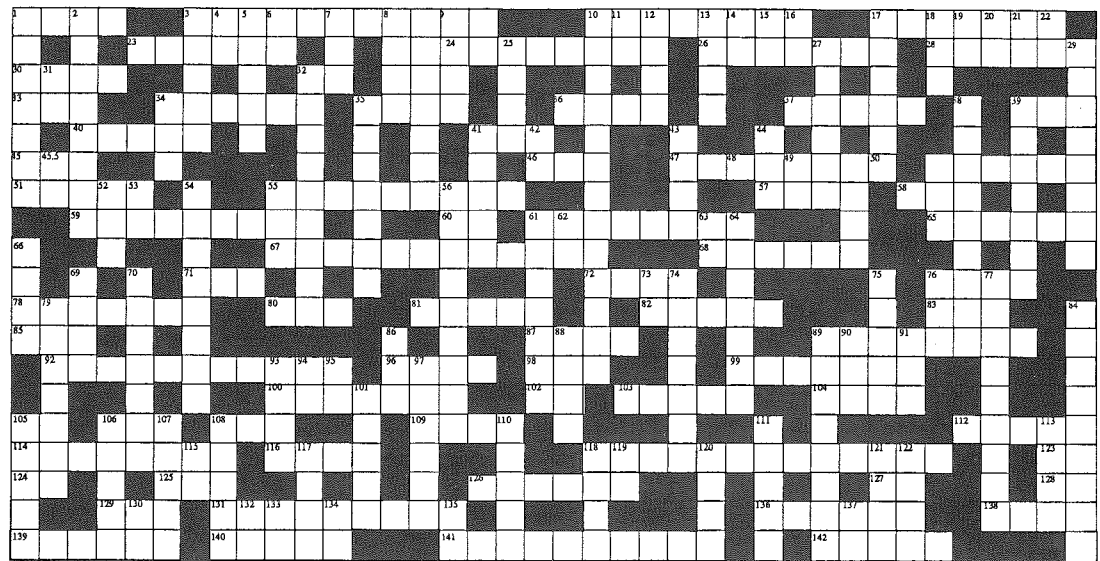
D. Barr (Ottawa), J. Barrett (West Roxbury, MA), H. Brotzman (North Adams, MA), M. Blackwell (Baton Rouge), K. & T. Casselman (Cheverie, Nova Scotia), L. C. Colt, Jr. (North Dartmouth, MA), M. R. Crosby (St. Louis), M. O. Dillon (Chicago), E. K. Fan (Washington, DC), G. R. Ghosb (IVRI Izatnorga, India), B. B. Halvorson (San Francisco), P. K. & N. H. Holmgren (New York), J. Hook (DeWitt, NY), Z. Iwatsuki (Hiroshima), H. & T. Kaponen (Helsinki), S. Kim (Worcester), M. Landowne (Milton, MA), J. M. Leonard (Hingham), P. J. Lin (South China Inst. Bot.), P. Lizon (Bratislava), R. Lowen (New York), D. MacFarlane (Boston), N. Morin (St. Louis), D. Norris (Arcata, CA), D. W. Palmer (Allston, MA), R. A. Pursell (University Park, PA), S. Sharnoff (Berkeley, CA), J. P. Solomon (St. Louis), X.-B. Wei (Cambridge), D. Vitt (Edmonton)

### LAPSUS CALAMUS

Several members' eagle eyes caught the fact that the numbers in the FOF Financial Report printed in the Fall 1990 newsletter did not add up correctly. Lest that observation engender uncertainty about our treasurer, let me assure the members that his report to this editor was impeccable and that its editorial transmission was flawed. If the balance on hand 7/1/89 is changed to \$13 935.24 (not \$11 935.24), agreement is effected.

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# C R Y P T O G A M E S



## ACROSS

1. Potato powdery \_\_\_\_\_
3. Insect parasite
10. Coenocytic chlorophyte
17. Membrane-mediated flux
23. Washington portraitist
24. *Mycotheca Italica*
26. Plutonic & volcanic
28. Dravidian descendants in Coorg
30. Day's work for a yoke of oxen
32. Italy's largest
33. \_\_\_ Negro
34. \_\_\_\_\_ & Tatum
35. Tin (symbol)
36. Iynx's mother
37. Line (diatoms)
39. Meadow-grass
40. Asexual, multicellular reproductive fragment
41. \_\_\_/CAM
45. Lyric poem
46. 41.28 bushels of grain
47. Algal polysaccharide chemist
50. Pied Piper subjects
51. O. \_\_\_\_\_ & A. Prayer
55. Old Man's Beard
56. All (pref.)
57. Sulfated galactan
58. Honey
59. Wilkes' bryologist
60. \_\_\_ . Schuster
61. Peat moss
65. Microalgal ultrastructuralist
67. Spore-bearing hypha
68. Croasdale focus
71. Jane Loring's spouse
72. "Thick-skinned & hunkered-down" cell
76. Velum type
78. Farlow protégé
80. \_\_\_ Tide
81. Medical mycologist
82. Claviceps disease
83. 'Tis mostly nitrogen.
85. \_\_\_-la-Chapelle
87. Poison ivy taxon

89. Banks' shipmate
92. Carpospore bearer
96. Olive-tree
98. Fool
99. Mature Coprinuses
100. Farlow's first
102. Phosphor component (symbol)
103. Gooseberries (in part)
104. Door fastener
105. In the broad sense (abbr.)
106. Cloth measure
108. Thai mountain group
109. Fermentation froth
112. Intertidal seaweed
114. Saddle fungus
116. Ustilaginalean disease
118. Biflagellate chlorophyte
123. Yale locus (abbr.)
124. Protein synthesis locus (abbr.)
125. Monod's DNA (abbr.)
126. Product of sexual arrogance
127. Truth-functional connective
128. \_\_\_ and behold.
129. Philippino bryologist
131. *Prymnesium's* "flagellum"
136. Hedwig Medalist (1987)
138. Basal corner area of moss leaf
139. \_\_\_\_\_-romansch
140. Birdy
141. Chambered hepatic
142. Smoke-dry

## DOWN

1. *Aquatic Phycomycetes* (author)
2. Mosses & ferns
3. Yellow
4. Scoriaceous lava
5. Long Island lichen flora (author)
- 6 Follows ties (abbr.)
7. Card game
8. *Rocky Mountain Naturalists* (author)
9. Sarton's journal
10. Grout dissertation topic
11. \_\_\_ . Wood & K. Imahori
12. \_\_\_ Ono
13. 12-point type
14. Koop's title (abbr.)

15. 49-proton element (symbol)
16. Sample means have one. (abbr.)
17. At the opening
18. Slimy (pref.)
19. The Bede's tongue (abbr.)
20. Calcium analog (symbol)
21. Owen's survey area (abbr.)
22. Papal address (abbr.)
25. Tuft
27. 8va
29. Collecting
31. Head measure (abbr.)
32. Capsular fringe of teeth
34. New England fungus group (abbr.)
35. Fungal + phycobiont propagules
38. Photosynthetic lamella
39. Apothecium-bearing stalks
41. Pseudogamous passage
42. Lab H<sub>2</sub>O (abbr.)
43. Philadelphia Academy in Mansell
44. Multivariate analysis
45. 51 Princess \_\_\_\_\_
48. Inspectorate head (abbr.)
49. Dry
50. \_\_\_\_ Acad. Imp. Sci. Saint Petersburg.
52. Valine codon
53. Small one (suff.)
54. Binucleate hypha
55. Tarheels (abbr.)
56. Gametophore forerunner
61. Lambeth illustrator
62. US Territory (abbr.)
63. As directed (Latin; abbr.)
64. Sex's life cycle partner
66. Bristle
69. "Photosynthetic" physiologist
70. Terminally inflated tube
73. Locoweed toxin (symbol)
74. Hepatic with white-dotted leaves due to oil bodies
75. Laminarians and/or Fucoids
76. Hank of twine

77. Lichen phycobiont
79. Huckster
84. They impede currents.
86. "\_\_\_ Soleil"
88. Detest
89. Alsatian bryologist at Strausbourg
90. Krieb's cycle intermediate (abbr.)
91. Egyptian viper
93. Barley bristles
94. Diatonic tone
95. \_\_\_ C, a kind of chromatography
97. Lip
101. Diagnostic language according to Code
105. MSA's first
106. Lightly clothed woman
107. \_\_\_\_\_ Estacado
108. Intense desire for life
110. Davy Medalist with Mendeleeev
111. Keats was one.
113. Bruins (abbr.)
115. \_\_\_ : concentration of toxin which kills 50% of a population
117. After (pref.)
118. \_\_\_-Geigy
119. W. B. & \_\_\_ . Rogers
120. A million times (pref.)
121. *Porphyra*
122. 10m-by-10m quadrats
130. DNA base pair
132. Heart node (abbrev.)
133. Circumference/diameter
134. Wicket side for batsman
135. Kind of radio
137. \_\_\_ . Cummings

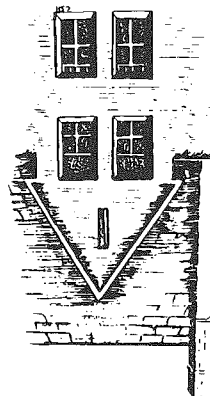
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## MEETINGS

**Thursday, May 16**

**Roger Phillips** will introduce and discuss his new book on the *Mushrooms of North America* at a Boston Mycological Club sponsored meeting. Watch the BMC Bulletin for details.

**Saturday, November 2**

Annual Meeting of Friends of the Farlow

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**Friends of the Farlow** is an international group of amateur and professional botanists concerned with supporting the programs and resources of the Farlow Reference Library and Herbarium of Cryptogamic Botany of Harvard University. Membership categories are: Associate member, \$5-25; Full member, \$25; Sponsor, \$50-100; Benefactor, \$1000 or more. To join please make your check payable to the **Friends of the Farlow** and send to the address below. The membership year runs from January 1<sup>st</sup> to December 31<sup>st</sup>. Members receive a discount on Farlow publications and services, participate in book sales, annual meetings and other events, and receive a special welcome at the Farlow. This newsletter is published twice a year, in April and October. For more information, contact the Farlow Reference Library, 20 Divinity Avenue, Cambridge, MA 02138 USA (Tel. 617-495-2369; FAX 617-495-9484).