

Newsletter of the



FRIENDS OF THE FARLOW

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Carolyn S. Hesterberg, Editor

Liking lichens

Donald H. Pfister
Farlow Herbarium

Last fall I once again taught a lichen course in the Harvard University Extension program and once again I was surprised by the interest and enthusiasm shown by the students in the course. What is it about lichens that draws the eye and focuses the attention? Perhaps it is somehow related to the quip by one wag who, when asked why it is that lichenologists fought so much among themselves, offered that it was because there was so little to lose. Far from fighting among themselves, my students have cooperated on identifications and on projects. I take this opportunity to compliment them on their work and also to share some of the information from their projects with a broader community.

We had floristic accounts of lichens from the Boston Harbor Islands, Hudson, Massachusetts and Jaffrey, New Hampshire. These studies build up what we already have from previous years'

collections and, in some cases, probably represent the only recent collections from these areas. Other students chose to research topics in physiology. We had one research paper based on the literature concerning ozone damage to lichens.

Another student, John Raytis, compared chlorophyll content of lichens from two different localities. He was able to demonstrate that lichens from the more polluted area had higher amounts of degraded chlorophyll. By looking at electrolyte leakage, he was also able to detect significant differences between "healthy" lichens and those from a polluted site.

Jeffrey Park undertook a comparison of lichens in an orchard in which pesticides are used with those found in surrounding areas. Surprisingly, he found that lichens did not seem to be adversely affected by pesticides. In fact, they seemed to be as plentiful in the orchard as in the surrounding area, and they also covered larger areas in the orchard. He found a positive correlation between lichen cover and moisture

levels. The orchards, by virtue of the spray regime, are generally more moist.

Jennifer Donnell undertook research to determine if there was any correlation between lichen distribution over large areas and temperature. She hoped to determine if a system like the hardiness maps could be used to predict the distribution of lichens. Although she collected widely, no correlations were found.

Nan Harris collected at the Highland Farm Wildlife Sanctuary on Belmont Hill--Habitat, as it is known to many of us. She wrote an identification guide for the lichens found there. Nan discovered what others had before her: the lichen flora is impoverished and populations that are found are smaller than those of the same species in less disturbed habitats. Her field guide is available at the Headquarters building for any of you who would like to try your hand at identifying some common Boston lichens.

Rebecca Anderson chose to work in the Middlesex Fells. She collected and identified macrolichens and compared her collections with those from a list published in 1894. As one might have expected, she discovered that several pollution-sensitive taxa were missing. Like the Belmont Hill location, the Fells is a heavily-used area and this seems to have had a great effect on the flora.

Joanne Hoy compared two eastern white cedar (*Chamaecyparis thyoides*) bogs in New Hampshire. One is coastal, near Portsmouth, and the other is a boreal bog in Antrim. She compared the two sites and found sixty-four species; of these thirty-

three species were common to both bogs, while eight were found only in the coastal site and twenty-three were found only in the inland site.

This summarizes my students' semester projects. As you see, there is more to studying lichens than just identification, and there is enthusiasm for the organisms. This brings me to my first point--why do lichens capture the imagination? I think it is because they grow in such difficult places. What else can be found growing on exposed rock, or soil too sandy or shallow to allow a plant to take root, or on limbs of trees high in the canopy of a temperate forest? Lichens are always with us. They occur almost every place on the face of the earth except where the larger and more obvious members have been killed by human activity. Moreover, unlike non-lichenized fungi, they can be found year round. And last, they are beautiful. Go out on a damp day and walk the woods or the rocky seacoast, and you will be rewarded with a fine display of lichens in a multitude of bright and subdued shades.

Lichens catch the fancy and offer many diversions, as my students have always shown me.

Prof. Donald Pfister has been teaching mycology and lichenology courses in Extension for over fifteen years. Some of those who have participated in them have remained active contributors to the field and to the Farlow, including Friends of the Farlow President Elizabeth Kneiper, Vice-President Philip May, and longtime FoF member Elisabeth Lay.

Herbaria Open House

The Arnold Arboretum is celebrating its 125th anniversary this year. To commemorate this event, the Harvard University Herbaria will hold an Open House on Thursday evening, May 8th, from 5:30-8:30 p.m., during which the many and varied botanical research and related activities at Harvard will be presented to the public. As Emily Wood, Manager of the Collections, said in her announcement of the upcoming festivities: "The previous open house [held eleven years ago] was designed to allow faculty, staff and students of the Herbaria to show to the public some aspect of their research. As they entered the building, visitors picked up a map which highlighted offices or areas where displays, slide shows or demonstrations were taking place. The idea was to allow visitors to flow through the building at will, stopping at various posts to get a glimpse of some aspect of botanical research. Topics ranged from Tree Ferns to Tissue Culture, the Botanical Exploration of the American West to the Food Plants of China. Some chose a format of a continuously running slide show; others chose to have a display and then be there to answer questions. Staff were on all floors; "botanical hors d'oeuvres" were served in Asa's Place (the Seminar Room)."

The Farlow Herbarium and the Friends will, of course, be part of the celebration with displays, tours and other offerings. We welcome the event as another opportunity to highlight and promote the many treasures of the Farlow and the botanical collections at Harvard. If any of our members

would like to participate in the Open House (greet people, help with tours) or simply enjoy the evening of botanical activities, please let us know or simply show up!



1997 Clara E. Cummings Walk

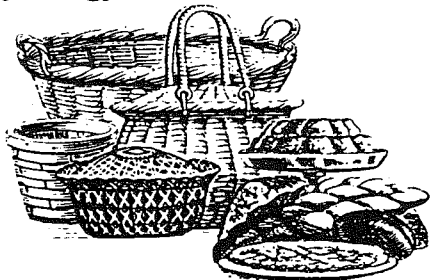
The Second Annual Clara E. Cummings Walk is scheduled to take place Sunday, April 27th (rain or shine!) at the Myles Standish State Forest in South Carver, MA between 10:00 a.m. and 3:30 p.m. Although collecting is not permitted, walks through the pitch pine/scrub oak communities, white pine and oak stands, and pond-shore areas will be led by lichenologist Samuel Hammer, bryologists Benito Tan and Brent Mishler, and mycologists David Hibbett and Donald Pfister. Bring a friend, comfortable walking shoes, a hand lens, insect repellent, a picnic lunch and a water bottle.

R.S.V.P.'s and questions may be submitted to Elizabeth Kneiper, tel. no. (617) 235-8440 or e-mail at: EKNEIPER@AOL.COM.

"Anita Amanita" Wins the Bowdoin Prize

File this one under "Cinderella Story." Last semester, a graduate student in Molecular and Cellular Biology with an interest in field mycology, Jason Felsch, audited Prof. Donald Pfister's mycology course. Becoming intrigued by Prof. Pfister's ongoing work on the nematode-trapping

fungi (see FoF Newsletter no. 25-- Fall 1994), he wrote about fungi and their trapping capacity in a paper entitled, "The Genus *Orbilia*: A Case for Alternative Lifestyles." This he submitted into competition for the Bowdoin Prize for Writing in the Natural Sciences under the name "Anita Amanita" (contestants are told to use a nom de plume). One day in March, Mr. Felsch showed up like a Santa Claus in mufti at the door of the Farlow office bearing an enormous basket of goodies to share with the staff in celebration of his winning the prize of \$3,000. Our congratulations and gratitude go to Jason, not only for the epicurean spread but for renewing our faith in the occasionally non-abstract rewards that await one in studying mycology.

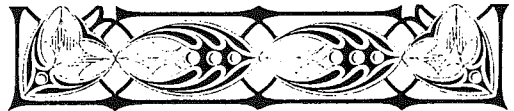


New Library Staff

A new reference librarian, Lisa DeCesare, has begun work at the Botany Libraries as of the beginning of March. A graduate of Northeastern University and Simmons Graduate School of Library and Information Services, she comes to us most recently from Lamont and Hilles Libraries and has worked in the Baker Library archives. Among Lisa's projects for the coming months is

the creation of a finding aid for the W. G. Farlow archives.

Booksale Note: The Friends of the Farlow Spring Booksale list is in the works and should be coming your way in April.



Upcoming Travels

The coming months will see H. U. Herbaria staff members pack their bags (*and* double-check their passports and visas) for various destinations on the Eurasian continent. In August and September, bryologist Benito Tan, working on a grant from the National Geographic Society, will survey the diversity of moss flora in the Amur River Basin in the Russian Far East with Professors Zen Iwatsuki (Hattori Botanical Laboratory, Nichinan, Japan) and M. Ignatov (Primary Botanical Garden, Moscow). In addition, a three-year National Science Foundation grant was awarded to the Harvard University Herbaria. The project supported is a survey of the biodiversity of western Sichuan in southeastern Tibet (China) which will include fungi, bryophytes, ferns and seed plants. Dr. David Hibbett, Friends of the Farlow Annual Speaker from two years back, will be the mycologist from Harvard on this trip. Botanists representing three institutions included under the umbrella of the (Chinese) Academia Sinica (two in Beijing, one in Chengdu) will be part of this U.S.-China joint venture.

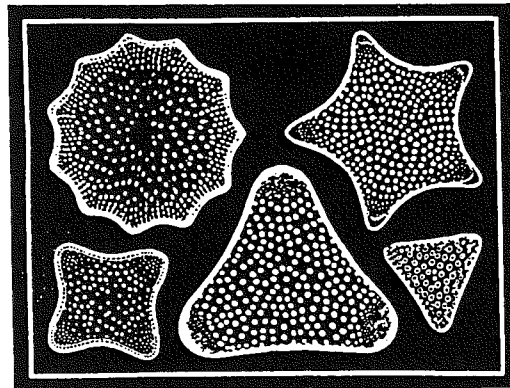
Mycologist Donald Pfister also plans trips to Finland and Thailand. From June 15th to the 23rd, he will lead a Museum of Comparative Zoology tour to Lapland, and in July a trip to Thailand of about three weeks is planned to work on a fungal biodiversity project.

- *Agaricus pilosus* Huds.
- "Algarum Vegetatio" from A. Postels and F. Ruprecht's *Illustrationes Algarum...*
- *Peziza* sp. from a set of illustrations of Irish fungi....
- *Grimmia apocarpa* from J. Hedwig....

Our thanks to Harriet for all her help on the Farlow notecards.

Booksigning

We have received word that former FoF President Moselio Schaechter will be in Cambridge in early June to celebrate the publication of his new book, *In the Company of Mushrooms: A Biologist's Tale*. The Boston Mycological Club will host a booksigning party at which Elio will give a talk: "Mushrooming in Southern California" on Monday, June 9th at 7:30 p.m. in the Farlow Library. Join us to say hello to Elio (who is now living in San Diego) and peruse (and perhaps purchase) his latest offering to the mycological world.



Diatom (and other) Notecards

The splendid notecard which served as last year's Friends of the Farlow Christmas card has now been produced in "marketable" quantities by Harriet Provine. Based on a plate from Schmidt's *Atlas der Diatomaceenkunde* (1885) in the Farlow Reference Library, the card now is available as both a blank notecard and a holiday card (with *Season's Greetings* inscribed inside). Other cards in the series (all priced at \$3.50/four with envelopes) are:

Mailing Problem

Although we all have much to be grateful for in the area of modern technology, we still experience the occasional problem. After the last Newsletter (Fall, 1996) was mailed, we received six of them back; their computer-generated labels had fallen off while in the tender care of the U.S. Postal Service. As there is no way to know which of our members did not receive his or her Newsletter, please, if you are one of them, contact us and we will replace it. The telephone number at the Farlow is (617) 495-2368. If you are one of the fortunates with e-mail, my address is: chesterberg@oeb.harvard.edu.

FIRST CLASS



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, \$10-\$24; Full member, \$25-\$49; Sponsor, \$50-\$999; 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 1st to December 31st. 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 the spring and fall. For more information, contact the Farlow Herbarium, 20 Divinity Avenue, Cambridge, MA 02138, USA (Tel. 617-495-2368; Fax. 617-495-9484).