



Friends of the Herbarium

Biological Sciences Herbarium
California State University, Chico

Newsletter

Vol. 2 No. 1

June 1996

Friends of the Biological Sciences Herbarium

presents the

Friends of the Herbarium Workshops

THROUGH the remainder of the year, the Friends of the Biological Sciences Herbarium is presenting a series of workshops covering various topics to help increase your abilities to key through some of the more difficult plant groups and also to introduce you to methods used to determine relationships among species. See page 3 for the details.

- Introduction to Keying Comps
- Introduction to Keying Grasses
- Introductory Cladistics
- Introduction to Keying *Carex*

JOIN US for one or more of these great workshops. Remember, a portion of your registration fees help support the Friends activities on behalf of the Herbarium.

MESSAGE FROM THE BOARD

A warm welcome to our new Board member, Richard Lis. He and six returning Board members were elected by a tally of those ballots which were received by May 10. We would also like to thank John Copeland for his valuable input while serving on the Board for our first year. One of John's greatest strengths has been in helping us formulate our goals, and then keeping us on track! We hope he can find the time to keep an eye on us, as his continued support would be much appreciated.

We had an excellent response to our annual membership renewal request in May. Thank you to those of you who renewed so promptly. We now have 75 members, and the number is still growing.

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SECOND ANNUAL FIELD EVENT: Vina Plains Checklist

A small gathering of folks met on March 30 to conduct the second annual plant checklist at the Vina Plains Preserve. There were nine of us on that beautiful March day. We decided to spend the same amount of time as the previous year (about 1 1/2 hours) to identify all the species we could find in flower or in fruit. Altogether, we had a grand tally of 42 species that we could identify in flower or in fruit. The count was down from last year and it would be interesting to determine if there is a trend with the number of people and the number of species identified. LH



Continued from page 1 Message from the Board

Our account balance is currently a little over \$3,000. We will be using some of the funds in the near future for improvements in the herbarium – more on that elsewhere in this issue of the newsletter.

This summer the Board will be putting together a constitution for the Friends of the Herbarium. Things have run quite smoothly, to date, but we feel that the framework provided by a constitution is appropriate for this type of organization. Any interested members are welcome to attend our meeting on this topic on June 28 at 3:00 p.m. in the herbarium. The University closes early on Fridays during the summer months, so you should contact someone on the Board ahead of time to make arrangements for access into Holt Hall.

We are very encouraged by the level in interest shown in the Friends during our initial year. Thank you for your suggestions, monetary donations, and participation. RF

Annual General Meeting

The Annual General Meeting is scheduled for Saturday, October 26, from

New Board Member!

We welcome Dr. Richard Lis to the Board of Directors of "Friends of the Biological Sciences Herbarium." Dr. Lis earned a B.S. in Geology from Portland State University and a Ph.D. from the University of California at Berkeley. His dissertation was a taxonomic revision of *Holodiscus* (Rosaceae) using leaf morphometrics and numerical taxonomy. Rich works as a botanist with California Department of Fish and Game, Redding, working on the environmental review of P.G. & E. and Tuscarora gas pipelines, Sierra Pacific powerline, and data analysis and interpretation of the Cantara spill in the upper Sacramento River. His areas of interest are Plant taxonomy, numerical taxonomy, cladistics, paleobotany, and systematics of the woody Rosaceae (particularly Spiraeoideae) and Cactaceae. Dr. Lis taught the Plant Taxonomy course at CSUC this past spring semester.

4:00 to 5:00 p.m. (immediately following the workshop, Introductory Cladistics, by Richard Lis). Watch for details about the speaker and other activities for this annual meeting in the next newsletter. LJ

Support for the Herbarium

The Friends of the Biological Sciences Herbarium has begun to move forward with support activities for the

herbarium. Many of the botanical journals donated to the herbarium by the estate of John Thomas Howell are now on their way to Sacramento to be bound. This is important to prolonging the life of these valuable journals and to making them accessible to users of the herbarium. The Board is also exploring the cost and feasibility of constructing a doorway from the herbarium to the adjacent laboratory room, and is looking into wiring the herbarium into the campus computer network to provide the herbarium a connection to, and interaction with, the internet. One computer is presently on limited loan to the herbarium for record keeping and correspondence, but the Board would like to purchase or otherwise obtain a computer for general herbarium uses such as creating a database of the herbarium specimens and for use by visiting researchers. LJ

The Board of the Friends of the Biological Sciences Herbarium always welcomes, and encourages, ideas, suggestions, and recommendations from the members and other users of the herbarium.

QUOTE FROM A BOTANIST

"Plants represent 99.9 percent of the world's biomass, while animals account for only 0.1 percent. This means that plants are basically all that is on the planet."

Dr. Douglas Larson,
University of Guelph
Ontario, Canada

Dr. Larson and his research are the subjects of a fascinating article titled "Lost in Time" in *International Wildlife*, July-August 1994. JM

FRIENDS OF THE HERBARIUM WORKSHOPS

INTRODUCTION TO KEYING COMPS. 14 September 1996, Saturday.

John Dittes, graduate student at CSU, Chico, will lead this one-day introduction to keying the Asteraceae, or sunflower family. In this workshop, participants will be introduced to keying composites using *The Jepson Manual*. A combination of fresh and dry material, mostly from Plumas County, will be provided for instruction and group keying. Please bring forceps (tweezers), dissecting needle, and 6" millimeter ruler. If possible, also bring a copy of *The Jepson Manual*; we only have a few copies to loan to those participants without them. The workshop will meet from 9:00am to 5:00pm in Holt Hall, Room 129, at CSU, Chico. The class is limited to 20 participants; the fee is \$25.00 for members of Friends of the Herbarium and \$35.00 for non-members. Please register by 4 September, if possible. For more information, please contact John Dittes at 916-895-0349.

INTRODUCTION TO KEYING GRASSES. 5 October 1996, Saturday.

Tom Griggs will teach an all day introductory workshop on the keying of grasses. The class will cover basic grass family terminology and an introduction to the identification of some common species. More advanced students are welcome to bring in their own specimens for keying – a great opportunity to have expert help with those plants you have had trouble identifying! Participants should bring their own copies of *The Jepson Manual*. Several copies of the Manual are available for use during the day of the class; please call Joyce Lacey at 916-343-2010 to reserve a copy. Please also bring forceps, dissecting needle, and 6" millimeter ruler. The class will meet from 9:00am to 5:00pm in Holt Hall, Room 129, at CSU, Chico. The class is limited to 20 participants; the fee is \$25.00 for members of Friends of the Herbarium and \$35.00 for non-members. Please register by September 25, if possible. For additional information please call Tom at 916-826-0947

INTRODUCTORY CLADISTICS. 26 October 1996, Saturday.

Richard Lis, Ph.D., Botanist with the California Department of Fish and Game and Instructor with the Biological Sciences Dept., CSU, Chico, will lead this one day workshop on introductory cladistics. The class will be a mixture of lecture and applied exercises to learn the basic ideas of cladistic theory and methodology. This class will emphasize an understanding of the strengths and limitations of cladistics as well as variations in philosophy and applications. Have you wondered what is meant by the terms synapomorphy, paraphyly, parsimony, or character compatibility? You will find out in this workshop. No previous knowledge is needed, just come interested. The workshop will meet from 9:00am to 4:00pm in Holt Hall, Room 129, at CSU, Chico. Class is limited to 20 participants; the fee is \$25.00 for members of Friends of the Herbarium and \$35.00 for non-members. Please register by 16 October, if possible. For more information, please contact Richard Lis at 916-225-2142.

INTRODUCTION TO KEYING *Carex*. 7 December 1996, Saturday.

An introduction to keying *Carex*, and the associated terminology, this workshop is led by Lawrence Janeway. Material of several species of *Carex* will be available for keying by all members of the class; herbarium labels will be provided for those participants who would like to take home their sample material for later reference. Please bring forceps, dissecting needle, and 6" millimeter ruler. The workshop will meet from 9:00am to 5:00pm in Holt Hall, Room 129, at CSU, Chico. The class is limited to 20 participants; the fee is \$25 for members of Friends of the Herbarium and \$35 for non-members. Please register by 30 November, if possible. For more information, please contact Lawrence Janeway by e-mail at 75331.2654@compuserve.com or by phone at 916-899-7434.

FRIENDS OF THE HERBARIUM WORKSHOPS
Registration Form

Intro to Keying Comps, 14 September	___ \$25.00 (member)	___ \$35.00 (non-member)
Intro to Keying Grasses, 5 October	___ \$25.00 (member)	___ \$35.00 (non-member)
Introductory Cladistics, 26 October	___ \$25.00 (member)	___ \$35.00 (non-member)
Intro to Keying <i>Carex</i> , 7 December	___ \$25.00 (member)	___ \$35.00 (non-member)

Please make your check payable to "Friends of the Biological Sciences Herbarium"
and mail to:

Friends of the Biological Sciences Herbarium
California State University, Chico
Chico, CA 95929-0515

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Introduction to Plant Identification. I attended the Workshop given by John Dittes on March 9 on plant identification. I didn't actually count the attendees, but think there were twelve or fifteen of us. We spent about half an hour learning about the CSUC Herbarium, about relationships with other herbaria, specimen preservation – all the interesting activities of a curator. We then spent some time learning to use *The Jepson Manual* – the important material in the book which precedes the keys. Then as a group we went through the procedure of identifying one of the thirty or so fresh plants that Mr. Dittes had brought for the occasion. I think it may have been *Dichelostemma cap-*



itatum (I now feel confident when I call a plant "Blue Dicks"). We were then at liberty to identify as many of the fresh specimens as we wished, with as much help as we needed to get correct answers. I needed hand-holding for a pop-

Revegetation Efforts at Walker Mine. We regret to announce the cancellation of this workshop scheduled for June 28. OSHA and Plumas National Forest require that anyone entering the mine tailings at the Walker Mine have 40 hours of hazardous materials (HAZMAT) training. The tailings are where the revegetation efforts have been taking place. Thus this workshop is not possible at this time. LJ

corn flower and plectritis, which would have been frustrating without help. I certainly would recommend this workshop for other amateurs. John Copeland

PLANT TAXONOMY, SPRING 1996

Many of you are alumni of Dr. Stern's Plant Taxonomy course and may be interested in what the course was like this past Spring, as taught by Dr. Richard Lis. Dr. Lis gives us the following report.

In the lecture we covered a variety of topics. Some of the major topics of lecture were: the description and relationships of all divisions of vascular plants, species concepts, history of classification, description and evolutionary relationships of the subclasses of flowering plants, numerical taxonomy, and cladistics. In the laboratory [taught by Elizabeth Hubert - ed.] we covered all extant divisions of vascular plants and approximately 75 families of flowering plants. The students also learned how to key plants. Major events of the laboratory included five field trips (one all day) and a required plant collection. Overall, the course went very well. I thank the faculty of the Department of Biological Sciences for the opportunity to teach this course and for their support during the semester.

RL



THE HERBARIUM AND THE INTERNET

The last issue of the newsletter carried an article under this title. That article briefly mentioned the SMASCH Project (Specimen Management System for California Herbaria). More information about this project was recently obtained via the internet. The following

Cladistics. A method of classification in which the relationships between organisms are represented by a diagram, or cladogram, based on selected shared characteristics. It is basically a phylogenetic system since the selected characteristics are those that are assumed to have been derived from a common ancestor.

Phylogenetic (phyletic). Describing the study of the stages in the evolutionary history of groups of organisms. It is based on a study of the fossil record, comparative anatomy, etc., and provides a basis for classification.

From "The Penguin Dictionary of Botany"

text about the project is reprinted from two web pages (World Wide Web or WWW). LJ

<http://www.calacademy.org/smasch.html>

SMASCH is a collaborative effort by the Association of California Herbaria (ASH) to develop and implement a distributed database that will store and manage information obtained from accession sheets of vascular plants collected in California. The database will enhance our understanding of the state's vascular plant resources, both living and preserved, and will improve the efficiency of many herbarium operations as well. The project is presently being implemented by the California Academy of Sciences, which includes the CAS and DS herbaria (CAS/DS) and the Uni-

versity of California at Berkeley, which includes the UC and JEPS herbaria (UC/JEPS). The Rancho Santa Ana Botanic Garden, which includes the RSA and POM herbaria (RSA/POM), also has a major collection of California plants in the state. They will hopefully be fully involved in this project at a future date.

A SMASCH Query Form is being developed at UC Berkeley as a WWW front end tool to search for collection accession sheet data as well as images which then feeds the request into the Sybase Database server and the output is then ported back into the Web.

<http://ucjeps.berkeley.edu/smasch.html>

The SMASCH project, funded by the National Science Foundation (NSF), is developing a database of text data and images of specimens that document the distribution and classification of the plants of California. The project began in 1992. By 1999, the SMASCH database at the University and Jepson Herbaria will contain

records for approximately 300,000 accessions.

In February 1996, NSF conducted a site visit to the SMASCH Project. As a result the MIP [Museum Informatics Project] and the SMASCH Project are undertaking a redesign of our home page, preparing SMASCH for distribution through the WWW by July 31, 1996, and beginning data entry for the next year of the project (80,000 accession records will be entered during the next twelve months). The current status of our activities toward these goals is contained in What's New [on another web page not reprinted here - ed.].

In addition, the Museum Informatics Project and the Western Botanical Database Federation, a distributed database using the SMASCH data model and data entry procedure, is under development.

Yes! I would like to join!

____ Student.....\$5.00
____ Individual\$10.00
____ Contributing\$25.00
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____ Donation\$ _____

This is a renewal for 1996

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Friends of the Biological Sciences Herbarium

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