

Friends of the Herbarium

Biological Sciences Herbarium

California State University, Chico

Newsletter

Vol. 5 No. 3

February 2000

DISTINGUISHED SERVICE AWARD

At the Annual Meeting on 6 November, the Friends of the Biological Sciences Herbarium presented the 1999 Distinguished Service Award to **JAN MONELO**.

A founding board member of Friends of the Biological Sciences Herbarium, Jan retired from the board of directors at the end of the 1998-1999 term. While on the board Jan was a major contributor to board activities, doing much of the work behind publicizing and awarding the Jim Jokerst Field Botany Award, doing the multitude of paperwork and phone calls behind the Friends of the Herbarium workshop series, tracking money flow, and numerous other essential activities. But more than just being a founding member of the board, Jan was instrumental in planning and organizing the reception held to acknowledge and display the personal library of the late John Thomas Howell, which had recently been donated to the herbarium. That reception, held on 10 November 1994, led directly to the formation of the Friends of the Biological Sciences Herbarium. Again, it was largely Jan who brought together the people who formed the founding board of directors in May of the following year. For all of these many contributions to the Friends of the Herbarium, we thanked Jan with this Distinguished Service Award. The Award plaque given to Jan included a framed enlargement of a photo of *Mimulus douglasii* (purple mouse-ears), one of her favorite flowers (from a slide kindly loaned by Dr. Rob Schlising).

Jan received her B.A. degree in Biological Sciences

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NSF GRANT FOR THE HERBARIUM!

The National Science Foundation (NSF) Biological Research Collections Program recently approved a grant proposal submitted by Herbarium Director Kristina Schierenbeck! Full funding was approved for a three year project to computerize the herbarium collection. In addition to getting all of the specimen label information into a database and making this information available through the internet, concurrent repair and upgrading of the collection will also occur, including the purchase of four new herbarium cabinets. The grant will provide funding for 20 hours per week each for the curator and an assistant to accomplish these tasks.

While waiting to hear back about the grant proposal, work to prepare the database (borrowed from the UC Davis

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Friends of the Herbarium

The **Friends of the Biological Sciences Herbarium**, California State University, Chico, was formed to help maintain the high quality of work that has been known to be associated with the herbarium. The primary purpose of the group is to provide community support for the herbarium. This includes raising funds for items that are not covered under the University budget. Scientific and academic pursuits are the focus of the group. The Friends also offers low cost workshops and classes on various botanical topics.

The Friends of the Biological Sciences Herbarium operates under auspices of the California State University, Chico, and enjoys non-profit status and has access to the use of University classrooms and equipment.

Memberships are renewed on May 1 of each year.

BOARD OF DIRECTORS

John Dittes
Robin Fallscheer, mailing list
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Linnea Hanson
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Joyce Lacey, publicity
Richard Lis

ADVISORS

Kristina Schierenbeck
Herbarium Director
Kingsley Stern
previous Director

Newsletter

Volume 5 Number 3

The Newsletter is published three times a year by the **Friends of the Biological Sciences Herbarium**, California State University, Chico. Subscription is free with membership. Submissions on herbarium related topics are welcome.

JIM JOKERST FIELD BOTANY AWARD

Two awards (\$250 each) are available to students this spring from the Friends of the Biological Sciences Herbarium. These awards are offered to students at CSU Chico, from sophomore to graduate level, working on an Independent Study or Thesis project involving field work in botany or ecology. Project descrip-

tions from the winning applicants, as included with their applications, are published in this *Newsletter*, and award winners asked to make short presentations about their projects at the Annual Meeting. Applications are due by March 15, and may be picked up at the Department of Biological Sciences office. This is the fifth year of the Jim Jokerst Field Botany Award. LJ

Memo to the Herbarium from Vern Oswald, 6 January 2000

Re: Accessions to CHSC during 1999

We have had a busy year in the University Herbarium – 3681 collections have been accessioned into the herbarium during 1999, compared to 2681 and 2831 collections during 1997 and 1998, respectively.

Much of our success this year is the result of the diligent work of our Curator, Lawrence Janeway, in setting up exchange programs with various herbaria in the United States and abroad. Almost half of our material this year was acquired through these exchange programs.

We continue to owe a debt of gratitude to our mounting specialist, Lowell Ahart. Aside from a hundred or so exchange sheets that were already mounted, Lowell has prepared about 3500 beautifully mounted specimens for the herbarium this year. Thank you, Lowell, for your continuing contribution of countless hours of your valuable time and some accompanying expenses to further the goals of the University Herbarium.

The following table lists the plant specimens accessioned into the University Herbarium during 1999.

SUMMARY

California accessions (counties with 5 or more):

Butte	332	Lassen	75	Siskiyou	36
Colusa	30	Modoc	8	Solano	8
Contra Costa	27	Nevada	35	Tehama	142
El Dorado	338	Placer	361	Trinity	11
Fresno	7	Plumas	321	Yolo	8
Glenn	30	Shasta	5	Yuba	49
Humboldt	5	Sierra	36		

Contributions of local collectors:

Lowell Ahart	256	Mary Ann Griggs	6	Vernon Oswald	124
Barbara Castro	261	Lawrence Janeway	500	Jenifer Slater	40
Hal Durio	18	Jenny Marr	17	Susie Urie	325
Loren Gehrung	4	Ben Myhre	39	Heidi West	35

[Editors note: And also many thanks to Vern for doing most of the accessioning (assigning an herbarium number to each specimen and recording this information) and filing of all of these specimens into the herbarium collection.]

One Day in the Life of a Plant Collector

The Discovery of *Cyperus iria*

by Lowell Ahart

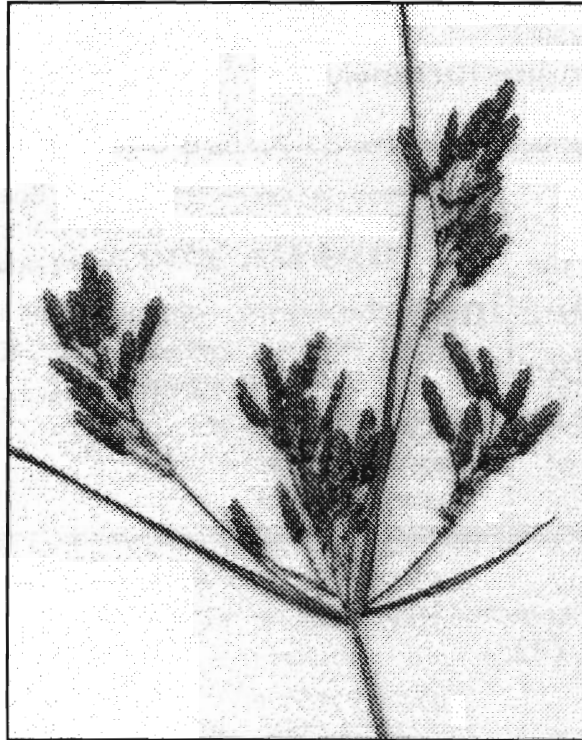
In late August of 1999, I received permission from Sam Shintaffer to collect plants in rice fields on his farm, which is located in Yuba County about 5 miles northeast of Marysville. On the hot afternoon of 5 September, I drove south from Honcut into Yuba County. Along Woodruff Lane I spotted some small hairy evening-primrose (*Oenothera elata* ssp. *hirsutissima*), which I decided to collect. After parking, I got my plant press and digging tool. As I walked along the mowed edge of the road to the evening-primrose, I noticed a small sedge growing abundantly in the mowed strip. Since I did not recognize it, I collected a number of plants. This took some time for most of the plants had been damaged from the mowing. I collected nine different kinds of plants in this area. I then went on to where I wanted to collect in Sam Shintaffer's rice field. Sam came along and invited me to see his rice fields. I did so and saw some excellent rice and some interesting weeds. When I got back to my pickup, it was getting late in the day so I returned to

Honcut.

In trying to identify the plant, the best I could do was to get to *Cyperus fuscus* in *The Jepson Manual*. On 6 September I went to Chico and showed the *Cyperus* to Vernon

Osward. He noticed that collections there of *Cyperus iria* were a better match. Therefore we have a new species (a weed) for Yuba County and for California!!

Note by Vernon Oswald. Keys do not work if the plant in hand is not in the key. This is the problem Lowell had with his *Cyperus* and the key in *The Jepson Manual*. When I later compared Lowell's plant with collections in the University Herbarium, I found it to be a perfect match with two collections of *Cyperus iria* from South Carolina. According to *Gray's Manual of Botany*, *C. iria* is a European weed found in clearings, ditches, and roadsides from Florida west to Texas and north to Virginia. Dr. Fred Hrusa, Senior Plant Taxonomist at the Plant Pest Diagnostics Center, California Department of Food and Agriculture, in Sacramento, has kindly checked his records and has



found no California collections of *C. iria*. Thus Lowell has once again found a new plant for the California flora.

Osward. He agreed that I had apparently keyed it out correctly. However, later, when Dr. Oswald was filing the specimen into the Univer-



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NSF Grant

herbarium) for this project has been proceeding thanks to the database committee of Barbara Castro, Bill Carlson, and Lawrence Janeway. Serious data entry is about to begin as part of this volunteer effort, and will be in progress by the time that the NSF funds arrive. This volunteer effort is an integral and ongoing part of successful completion of the



project. A call will go out soon for volunteers to help with data entry and other database activities. LJ

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Award

Technical Writing and Editing from CSU Chico in 1996, and is currently finishing her M.A. in English. She has prepared illustrations for Dr. Kingsley Stern's botany textbooks and does field work for local botanical consultants. LJ



Yes! I would like to join!

____ Student..... \$5.00
____ Individual \$10.00
____ Contributing \$25.00
____ Sustaining \$100.00
____ Lifetime \$1,000.00
____ Donation \$ _____

This is a renewal for 2000

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

Name _____

Organization _____

Address _____

City _____

State _____ Zip Code _____

Phone no. _____

E-mail _____

Come to the
Annual Meeting
- November 4 -
details in the June Newsletter

Board Meetings
- meet in the herbarium -
Fridays at 1:30 pm

May 5, 2000 November 3, 2000
August 4, 2000 February 2, 2001

All members are welcome and encouraged to attend.

- call to verify meeting -

Friends of the Biological Sciences Herbarium
California State University, Chico
Chico, CA 95929-0515
(530) 898-5381
ADDRESS CORRECTION REQUESTED

WORKSHOPS 2000
SPONSORED BY THE
FRIENDS OF THE BIOLOGICAL SCIENCES HERBARIUM
CALIFORNIA STATE UNIVERSITY, CHICO

INTRODUCTION TO FLOWERING PLANT IDENTIFICATION, TERMINOLOGY, AND TECHNIQUES FOR BEGINNERS. John Dittes.
April 8, 2000, Saturday.

BOTANICAL ILLUSTRATION. Judy McCrary.
April 15, 2000, Saturday.

IDENTIFICATION OF PLANTS FROM VERNAL POOLS AND OTHER SEASONAL WETLANDS.
John Dittes & Josephine Guardino.
April 29, 2000, Saturday

LILIACEAE – WITH AN EMPHASIS ON *ALLIUM*. Dale McNeal.
May 13, 2000, Saturday.

INTRODUCTION TO THE GREAT BASIN FLORA. Gary Schoolcraft.
June 24, 2000, Saturday.

IDENTIFICATION OF WETLAND PLANTS OF THE MODOC PLATEAU.
Eagle Lake Biological Field Station. Tom Griggs & John Dittes.
July 7-9, 2000, Friday Noon – Sunday.

INTRODUCTION TO KEYING GRASSES (POACEAE). Tom Griggs.
September 9, 2000, Saturday.

INTRODUCTION TO KEYING THE SUNFLOWERS (ASTERACEAE). John Dittes.
September 23, 2000, Saturday.

INTRODUCTION TO KEYING *CAREX*. Lawrence Janeway.
December 2, 2000, Saturday.

TO REGISTER FOR WORKSHOPS:

Please make checks payable to:
"Friends of the Biological Sciences Herbarium"

include your name, address, and phone number and mail to:

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

INTRODUCTION TO FLOWERING PLANT IDENTIFICATION, TERMINOLOGY, AND TECHNIQUES FOR BEGINNERS.
April 8, 2000, Saturday.

California has over 5,800 species of flowering plants, roughly 30% of all North American plant species (north of Mexico). How do you accurately figure out the name of a plant without thumbing through incomplete picture books? How do botanists go to a totally new area and make an accurate and complete plant list? This workshop will answer those questions and get you started identifying plants by yourself.

The workshop is designed to introduce beginners in plant identification to the terminology and techniques essential to identifying flowering plants using *The Jepson Manual*. Students will work with fresh plant material that illustrates the terminology used in plant identification, they will be introduced to using and writing plant "keys" (a central concept to identifying plants), and they will learn how to dissect flowers with a dissecting microscope and a hand lens. Emphasis during

group instruction will be in the use of keys available in *The Jepson Manual*. The workshop is led by John Dittes, local botanist and consultant with Jones & Stokes Associates of Sacramento.

Some of the basic equipment is available to loan to workshop participants, but if you have any of the following items please bring them: hand lens, forceps (tweezers), dissecting needle, 6" millimeter ruler, and *The Jepson Manual* (please let us know what you need to borrow).

The workshop will meet Saturday, April 8, 2000, from 9:00 a.m. to 4:30 p.m. in Holt Hall room 129 at CSU Chico. The registration fee is \$40.00 (\$30.00 for members); please register in advance. The class is limited to 16 participants. For more information about workshop content, please contact John Dittes at (530) 895-0349 or <jcdittes@cs.com>. For more information about registration or directions please call the Herbarium at (530) 898-5381.

BOTANICAL ILLUSTRATION.

April 15, 2000, Saturday.

Want to draw plants and flowers? Here's your chance! Local illustrator and teacher, Judy McCrary, will lead this one day workshop on botanical illustration. The workshop will concentrate on pencil and ink techniques, although other media may be explored depending on the interests of the participants.

Please bring an HB pencil and ink pens, nibs, and black ink if you have them on hand – these and other basic materials, including paper, will be available for purchase at the class. Let's all bring plant cuttings and flowers to draw and share. Please also bring a lunch.

The workshop will meet on Saturday, April 15, 2000, from 10:00 a.m. to 4:00 p.m. in Holt Hall room 129 at CSU Chico. Registration for the workshop is \$40.00 (\$30.00 for members); please register in advance. Class size is limited to 15 participants; older children are welcome to register. For more information about workshop content please contact Judy McCrary at (530) 589-1418. For information about registration or directions please call the Herbarium at (530) 898-5381.

IDENTIFICATION OF PLANTS FROM VERNAL POOLS AND OTHER SEASONAL WETLANDS.

April 29, 2000, Saturday

Vernal pools and other seasonal wetlands are fascinating and complicated habitats that support hydrophytic plant species from a variety of flowering, and non-flowering, plant families. This workshop will provide an opportunity to practice your plant identification skills, and at the same time become more familiar with the diverse and unique flora of seasonal wetlands.

This one day workshop is designed for those who already have a beginning understanding of the terminology used in plant identification, and the use of *The Jepson Manual* as a plant "key." Fresh and pressed specimens of local plants will be provided for participants to key, mostly as individuals with one-on-one instruction, and also as a group. Emphasis of group instruction will be placed on the recognition of families and the morphological features used to delimit genera and species. An overview will also be provided of the types of seasonal wetlands in northern California and some of their important ecological characteristics. This workshop is led by John Dittes and Josephine Guardino, local botanists and consultants with Jones & Stokes Associates of Sacramento.

Some of the basic equipment is available to loan to workshop participants, but if you have any of the following items please bring them: hand lens, forceps (tweezers), dissecting needle, 6" millimeter ruler, and *The Jepson Manual* (please let us know what you need to borrow).

The workshop will meet Saturday, April 29, 2000, from 9:00 a.m. to 4:30 p.m. in Holt Hall room 129 at CSU Chico. The registration fee is \$40.00 (30.00 for members); please register in advance. The class is limited to 16 participants. For more information about workshop content please contact John Dittes at (530) 895-0349 or <jcdittes@cs.com>. For more information about registration or directions please call the Herbarium at (530) 898-5381.

LILIACEAE – WITH AN EMPHASIS ON *ALLIUM*.

May 13, 2000, Saturday.

The Liliaceae includes some of our most beautiful native and ornamental plants. As interpreted in *The Jepson Manual*, the upcoming volume of *Flora of North America*, and most other floras, the Liliaceae is the largest family of petaloid monocotyledons. It is also a highly diverse family that is clearly polyphyletic. Taxonomists have, for most of the last century, attempted to split the family into a series of monophyletic families with only partial success. Participants in the workshop will be introduced to the variety that marks the Liliaceae in California through observation of living specimens and a series of herbarium specimens. In addition, because *Allium* is the largest genus in the family with approximately 700 species widely distributed in the northern hemisphere and because *Allium* is the tenth largest genus in the California flora special emphasis will be placed on this genus. While easy to recognize (onions smell like onions), many professional and weekend botanists have difficulty identifying specimens to species. This is because many of the characters critical to identification are obscure or poorly understood. We will learn the tricks to looking at, collecting, pressing, and identifying California onions during this workshop. Hands on experience will help clarify "cellular markings on the bulb coat" and "ovary crests" so that participants will feel confident in identifying members of the genus they encounter in the field. Participants should bring a copy of *The Jepson Manual* and a hand lens. This workshop is led by Dale McNeal, botany professor at the University of the Pacific, Stockton, and *Allium* specialist.

The workshop will meet Saturday, May 13, 2000, from 9:00 a.m. to 4:30 p.m. in Holt Hall room 129 at CSU Chico. The registration fee is \$45.00 (\$35.00 for members); please register in advance. The class is limited to 16 participants. For more information about registration or directions please call the Herbarium at (530) 898-5381.

INTRODUCTION TO THE GREAT BASIN FLORA.

June 24, 2000, Saturday.

The Great Basin reaches its most western extent in northeast California. This workshop will be a field tour driving loop of approximately 100 miles from Susanville, looking at some of the plant communities and associated plants of this portion of the Great Basin. A few rare and unique plants will also be observed along the way. This workshop will be led by Gary Schoolcraft of the Bureau of Land Management.

Some travel will be over gravel and sometimes rough, dusty roads. Car pooling is desired. Please bring lunch, water, and come with a full tank of gas. Dress for short hikes in brush and rocks, and be prepared for insects and changeable – hot or cold – weather. Meet at 10:00 a.m. at the BLM office in Susanville (2950 Riversides Drive – turn west at the south end of Susanville at the Taco Ball/McDonalds intersection, BLM is the next building on the left).

The registration fee is \$40.00 (\$30.00 for members); please register in advance. The class is limited to 15 participants. For more information about workshop content please contact Gary Schoolcraft at <gschoolc@ca.blm.gov> or (530) 257-0456. For more information about registration please call the Herbarium at (530) 898-5381.

IDENTIFICATION OF WETLAND PLANTS OF THE MODOC PLATEAU.

Eagle Lake Biological Field Station.

July 7-9, 2000, Friday Noon – Sunday.

As a region, northeast California boasts a high diversity of wetland species, with representative elements present from the Southern Cascade Range, Northern Sierra Nevada, and Great Basin biogeographic provinces. Wetland types include vernal pools, freshwater and alkali emergent marshes, and various types of wet meadow. This workshop is designed to introduce participants to the various types of wetlands encountered here, and to practice wetland plant identification skills using *The Jepson Manual*. We will convene at the Eagle Lake Biological Field Station, north of Susanville, on Friday, July 7, at noon, and visit a small wetland within walking distance of the Station. We will return to the Station and key out what we have collected using dissecting scopes in the laboratory. On Saturday morning we will repeat this schedule by visiting and collecting from different wetlands that support different species. We will stay the night at the Station on both Friday and Saturday nights, and the workshop will be finished on Sunday morning after breakfast. Those participants who want to stay longer on Sunday can get further, informal, assistance with keying wetland plants. Instructors for this workshop are Tom Griggs, Adjunct Professor at CSU Chico, and John Dittes, local botanist and consultant with Jones & Stokes Associates of Sacramento.

The Eagle Lake Biological Field Station (ELBFS) is located on the eastern shore of Eagle Lake, 26 miles north of Susanville. ELBFS is administered by the Department of Biological Sciences at CSU Chico and by the University of California's Natural Reserve System. Facilities include two dormitories, dining hall, library, and five-room laboratory. The registration fee includes meals from lunch on Friday through breakfast on Sunday, plus a bed in a dormitory with washroom and shower facilities. Please bring hand lens, forceps (tweezers), dissecting needle, 6" millimeter ruler, and *The Jepson Manual*.

The workshop will meet from noon Friday, July 7, 2000, through Sunday morning July 9, at the Eagle Lake Biological Field Station, 26 miles north of Susanville. The registration fee is \$180.00 (\$160.00 for members); please register in advance. The class is limited to 20 participants. For more information about workshop content please contact Tom Griggs at (530) 898-5294 or <tgriggs@jps.net>. For more information about registration please call the Herbarium at (530) 898-5381.

INTRODUCTION TO KEYING GRASSES (POACEAE).

September 9, 2000, Saturday.

Trying to identify an unknown grass with any taxonomic key can be intimidating before you understand the special terminology and the nuances of the key you are using. This workshop will immerse you in *The Jepson Manual* key to the Poaceae. The workshop is geared for both beginners and pros. The class will work through identifying three to four species per hour, mostly as a group, and everyone with their own sample and dissecting microscope. This workshop is led by Tom Griggs, Adjunct Professor at CSU Chico.

Please bring forceps, dissecting needle, 6" millimeter ruler, and a copy of *The Jepson Manual*.

The workshop will meet Saturday, September 9, 2000, from 9:00 a.m. to 5:00 p.m. in Holt Hall room 129 at CSU Chico. The registration fee is \$45.00 (\$35.00 for members); please register in advance. The class is limited to 20 participants. For more information about workshop content please contact Tom Griggs at (530) 898-5294 or <tgriggs@jps.net>. For information about registration or directions please call the Herbarium at (530) 898-5381.

INTRODUCTION TO KEYING THE SUNFLOWERS (ASTERACEAE).

September 23, 2000, Saturday.

With over 1,300 genera and 21,000 species recorded, the sunflower family (Asteraceae) is the largest plant family in the world, and with over 207 genera represented, it is also the largest family in California. Come and learn the taxonomy of

this remarkably diverse group with John Dittes, local botanist and consultant with Jones and Stokes Associates. John will lead this one-day workshop during which participants will key as a group and individually, using *The Jepson Manual*. John will provide fresh specimens from Butte, Tehama, Plumas, Lassen, and Sierra Counties. Beginners, as well as those wishing to brush up on their skills, are invited.

Please bring forceps (tweezers), dissecting needle, and a 6" millimeter ruler. You are also invited to bring any plants you may have been wondering about. If possible, also bring a copy of *The Jepson Manual* (we have several copies to loan to those who need them); we can direct you to sources for *The Jepson Manual* if you contact us ahead of time.

The workshop will meet on Saturday, September 23, 2000, from 9:00 a.m. to 4:30 p.m. in Holt Hall room 129 at CSU Chico. The registration fee is \$45.00 (\$35.00 for members). Please register in advance; class size is limited to 16 participants (class cancelled without a minimum of 5 participants). For more information about workshop content please contact John Dittes at (530) 895-0349 or <jcdittes@cs.com>. For more information about registration or directions please call the Herbarium at (530) 898-5381.

INTRODUCTION TO KEYING CAREX.

December 2, 2000, Saturday.

The genus *Carex* (Cyperaceae) is by far the largest genus in California, with about 135 species in California and more than 1,000 species worldwide! This workshop, led by Lawrence Janeway, is an introduction to keying *Carex* using *The Jepson Manual*. Material of several species of *Carex*, mostly from northern California, will be provided for use by all members of the class keying together, each person with their own specimen; herbarium labels will be provided for those participants who would like to take home their sample material for later reference. Terminology for this notoriously difficult group will be explained and illustrated as it is encountered during the keying process.

Please bring forceps (tweezers – the sharper, the better), dissecting needle, 6" millimeter ruler, and a copy of *The Jepson Manual*.

The workshop will meet on Saturday, December 2, 2000, from 9:00 a.m. to 5:00 p.m. in Holt Hall room 129 at CSU, Chico. The registration fee is \$45.00 (\$35.00 for members). Please register in advance; class size is limited to 16 participants (class cancelled without a minimum of 5 participants). For more information about workshop content please contact Lawrence Janeway at <ljaneway@compuserve.com> or (530) 899-7434. For information about registration or directions please call the Herbarium at (530) 898-5381.

FRIENDS OF THE BIOLOGICAL SCIENCES HERBARIUM

CALIFORNIA STATE UNIVERSITY, CHICO

(530) 898-5381

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The Friends of the Biological Sciences Herbarium operates under auspices of the California State University, Chico, and enjoys non-profit status and has access to the use of University classrooms and equipment.

At least half of workshop registration fees go to help support the Friends activities on behalf of the Herbarium.

MEMBERSHIP in Friends of the Biological Sciences Herbarium is:

Student \$5.00
Individual \$10.00
Contributing \$25.00
Sustaining \$100.00
Lifetime \$1000.00

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

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California State University, Chico
Chico, CA 95929-0515