

**Organization of  
Biological Field Stations**

**Newsletter  
No. 49  
Winter 1989**



Newsletter Editor  
Joseph F. Merritt  
Powdermill Biological Station  
The Carnegie Museum of Natural History  
Rector, PA 15677

# NEWSLETTER

## TABLE OF CONTENTS

- I. Minutes-- 1989 Annual Meeting for Business, Rocky Mountain Biological Laboratory, Crested Butte, Colorado.
  - \* OBFS Standing Committee Membership-- 1990
- II. "Ye Olde Official OBFS Ballote"-- return no later than December 30, 1989
- III. Committee Activities.
  - A. Brochure Committee
    - \* Survey Results
    - \* Photographs needed
    - \* Questionnaire--return immediately !!
- IV. Other OBFS Announcements and Business
  - A. Attendance list-- 1989 Annual meeting
  - B. Current status of OBFS Membership
  - C. OBFS Financial Report
  - D. Report of AIBS Representative-- 1989
  - E. OBFS Membership List--1989
- V. Book Announcement-- Just released, "Winter"



*Merry Christmas*

# I MINUTES-- 1989 BUSINESS MEETING

MINUTES - 1989 ANNUAL MEETING FOR BUSINESS

SEPTEMBER 8 - 10, 1989

ROCKY MOUNTAIN BIOLOGICAL LABORATORIES  
GOTHIC COLORADO

I. Session 1 - Sept. 8 - 8:07 a.m.

A. In attendance: Appendix I lists those present.

B. Vice-President Rozen convened the meeting and announced it would be short, to be followed by an executive committee meeting (which standing committee chairmen will be asked to attend), and that field trips would begin at 10:30 a.m.

C. The minutes of the previous meeting were approved.

D. The report of the Secretary/Treasurer. Coles reported that membership stands at 143, (92 station members, 51 individual members). There were 8 new members, 8 new directors at member stations and four resignations.

E. Treasurer's report. Coles requested guidance on the future disposition of the \$7500 Certificate of Deposit, #6873 at the Jefferson Bank, in Eureka, MO. (Eventually the executive committee suggested renewal for 1 year.) Since the meeting of 1988 the checking account balance has fallen from \$13,538.57 to \$5,115.57, reflecting expenditures totaling \$14,242.42 (\$11,467.40 of this being for the Directory). Income for the period was \$5819.42. Combining the balance in the checking account as of August 31 with the CD makes our current net worth \$12,615.57. Details about our financial activities are in Appendix III.

F. Editor's Report (Joe Merritt):

1. Directory. Joe reported he mailed directories to departments on an AIBS list, plus 2 each to member stations, about 1450 total. Postage is \$1.50 each. Details can be found in Appendix III.

Joe has about a thousand residual copies. Those wishing one should write Joe. The executive committee was charged with further discussing publicity for, and marketing of, these Directories before they become obsolete.

2. Newsletter. Joe will never again use the bilious green paper. He chose this shade inadvertently as he is color-blind. He wants to include information from member field stations - descriptions, (to be incorporated into the Newsletter) or brochures (to become part of the mailing). There was applause and approbation to

thank Joe for his excellent job on the Newsletter and on the Directory. We discussed revision of the Directory or the production of an occasional update document, without reprinting the whole thing.

G. Historian's Report (Bob Fisher): Much information is archived, but Bob needs copies of the earliest issues of the Newsletter, of photos from meetings, of correspondence, etc. These would form a basis for a history of OBFS.

H. Summer Course Announcement Poster (Susan Allen): Susan hopes to print in mid-October. The charge will be \$55.00 per listing. The poster operates on a self-sustaining basis, the charge covers expenses of production, and is not to be confused with station level dues. Distribution is to those on an AIBS mailing list, to chapters of the Beta Beta Beta Society and members of OBFS. There will also be notices placed in newsletters of societies suggesting their members write for a copy. Susan, seeks a nice color photo for the poster and welcomes submissions from members.

I. Future Meeting Sites (Jerry Rozen):

1. Don Siniff of Lake Itasca, host for 1990 said they can accommodate our group (of 85), and promised to show slides on Saturday night to prepare us. He suggested the meeting be from Sept 20-22, but not include the week-end as there may be another group to which their facility is committed. There was discussion about this; Don pledged to explore revisions of the arrangements and discuss matters further with the President.

2. In 1991, we meet at the Organization of Tropical Studies facility in La Selva, Costa Rica. Space may be limited, but perhaps a local bed and breakfast or motel could accommodate the overflow. Don Stone of OTS will describe the arrangements next year.

3. We have received invitations from Lucile Housley of the Malheur station in Oregon for 1992. In addition, Dick Page (previously) and Bill Porter, (this year) have invited us to meet in the Adirondacks. Other invitations were received from Flathead Lake, (Montana), Churchill (Manitoba), and Mountain Research Station (Colorado). We need not select one of these now, but it is a heady thought that we might gather at such enticing places in the future.

J. AIBS Representative (Jerry Rozen): See Appendix IV.

K. Nominations Committee: Rozen appointed Tony Joern (Chairman), Peter Connors and Jerry Scherba as the nominations committee. To be filled are: President, Vice-president, Secretary-treasurer and member at large. (2 yr. term).

L. Announcements (Susan Allen): Paul Erlich would appreciate input from OBFS as to how he, as the next president of AIBS, could encourage field biology.

M. Session I of the meeting adjourned.

## II. Session II - Saturday, September 9, 1989

### A. Reports of Standing Committees (S.C.'s)

1. Administration Committee (Chairman Alan Grundman) Alan's committee is rejuvenating - it had polled members concerning matters of mutual interest, but only four responses were returned. A previous questionnaire for the 1983 meeting on research needs at field stations is not locatable, (though, by now, it's obsolete). The committee ponders how various stations do things, what they charge for services, accommodations and lab space. Now, formally reorganized, the committee plans another questionnaire.

2. Discussion. Responses to questions from the chair and elsewhere determined that the functions of the S.C.s include getting input from members for topics to discuss at meetings, transfer of this to the program committee, and advising the executive committee about member interests. It was agreed that the chairmen of the S.C.'s should meet with the executive committee. In the future Rozen plans to establish a two-year term for the members and chairman of each S.C. with rotation, so that not all S.C.'s would be changing chairman simultaneously. Rozen suggested the fall Newsletter should list the S.C.'s and their membership. The list should also be distributed at the annual meeting in the packets handed out to attenders. Rozen also determined that time should be allocated for S.C. meetings at the very earliest part of the annual meeting, so the results of their deliberation can be used in the annual meeting.

3. Education (Chairman Paddock) Member Susan Allen observed that there had been no meeting and no activity last year. Rejuvenation is needed.

4. Research Committee (Chairman, Art McKee) Art distributed reports from a conference held at Woods Hole on long term ecological measurements. We discussed the new Research Support Liaison Committee in Ecology, Evolution and Systematics, and whether the OBFS should affiliate. This matter was referred to the executive committee. Oregon State U. lists funding sources. Art has been able to distribute copies to OBFS members in the past. The 1989 version of this document will appear soon and Art will circulate it. Art mentioned a flyer he received promoting a directory of research grant opportunities costing \$110. To order a copy, call 1-800-457-0RYX.

5. Program Committee (Jerry Rozen) This year's program is the committee's report. Jerry requested input for developing the schedule for next year.

6. Public Relations (Laura Carter) Jeff Kennedy reported for the committee. There has been a need to clarify the purpose and audience for the brochure. Discussions decided that the audience was (1) university deans, department chairmen, and other academic officials to whom it is important to show that the biological field station should have validity in any university structure. (2) a second audience are

the (potential) supporters for field stations and field studies, (legislators, lobbyists, officers of foundations and federal agencies).

The committee suggests a one page, two-sided publication using two or three colors, which could fit into a #10 envelope, or which might have space on it for an address thus serving as a self-mailing item. Contents to include: who belongs to OBFS, where they are, our purposes, publications, the number of users at stations, numbers of institutions represented, a section on national and societal significance of biological field stations and the work done there, which might emphasize our role in preserving bio-diversity, and tracking of global changes, training tomorrow's managers and scientists. Now that clarity of mission has emerged, progress is likely. The committee needs statistics on the above topics.

It was asked what other activities the PR committee might pursue. Suggested was an effort to stimulate the appearance of articles on field stations in the publications of societies, (such as the ESA Bulletin), and in publications for the serious lay-person, (Natural History and National Geographic). It was suggested that Jack Stanford and Susan Allen might do an article on the contributions of field stations regarding biodiversity, and global changes. Perhaps Paul Ehrlich could get such an article into BioScience, since he is to be president of AIBS. There might also be a series of short articles, each on a different field station which might be placed in the ESA Bulletin.

#### B. Ad Hoc Committee Reports

1. Nominating Committee (Tony Joern) Nominees are: for the office of President, Bob Fisher and Jerry Rozen; for Vice-president, Susan Allen and Nevin Aspinwall; for Member at Large (2 yr), Dave Mahan and Wade Sherbrooke; for Secretary/treasurer, Dick Coles. A short biographical statement by each candidate should appear in the fall Newsletter. Additional nominees are welcome. Jeff Kennedy's term as Member at Large, has just over one year left.

2. National Bird Banding Project (Susan Allen) Susan observed that several stations do bird banding and it would be appropriate to share reports on banding activities. This might permit tracking of winter bird populations or facilitate other mutually beneficial analysis.

#### C. Other Business

1. The Research Support Liaison Committee in Ecology, Evolution and Systematics. Vice-president Rozen asked Art McKee to establish communication with this group to explore whether OBFS should join. If we join, he asked Art to serve as our first representative. The effort is to increase funding for work of the sort done at field stations.

2. Data Management (DM) Workshop. George Lauff referred to the 1982 DM Workshop. Those wishing a copy, should contact him. DM can enhance research at field stations, and make it more effective. There has been much development and DM is a priority activity at the

LTER sites. These emphasize Geographic Information Systems (GIS) a subject of keen interest to those participating and at NSF. Indeed NSF expects information on these activities to be in proposals.

NSF has suggested a workshop of those managing research sites which are doing or would do DM. Now is the time to review, make plans for further development and identify impediments preventing DM and the development thereof, at other (smaller) sites, and to recommend how to reduce these barriers. Lauff and Jim Albert are developing a proposal for a workshop to include representatives of OBFS, of terrestrial field stations, of coastal/marine stations, and members of the Southern Association of Marine Laboratories. The latter organization represented by Jim Albert will be co-sponsoring the event planned for April 22-26, 1990 at the Kellogg conference facilities. At a pre-session on Sat. the 21st, demonstrations of GIS and DM would be held so attenders could 'show and tell' about their activities.

The topics will follow those raised in the 1982 report; there will be sections on administrative issues, data base problems and data base standards. Networking will be discussed in all of the sessions, rather than being a 4th session. 35-40 participants are expected with a representation of data managers and scientists with experience using data base systems. Participant selection will be based on a mailed questionnaire to solicit information on a site's existing data base and/or its commitment to future development of DM.

The final report to NSF and a wide audience will review the status of DM at coastal/marine and inland stations, will detail perceived areas of need and will suggest remedies. Lauff welcomes input, suggested participants and questions.

3. Dick Coles indicated that formal incorporation of OBFS has been delayed for a time, but that Washington University's legal staff has recently expanded and one of the new people will help with this.

4. Gordon Robinson reported Jennifer Shay was awarded the Order of Canada, the highest recognition in her homeland. This reflects her work with Delta Marsh Field Station and in and Plant Ecology. Vice-president Rozen extended our best wishes and congratulations.

5. Earthwatch (David Inouye) Earthwatch wants to initiate new projects through its Center for Field Research. A grant from the Durfee Foundation now supports high school students to enable them to help in research at field stations. A memo was circulated to directors. The plan is that 6-8 high school students could work at each of 10-12 field stations with payment of about \$750 per student to spend two weeks at the station. These funds are to cover staff salary, room and board at the station, and to enable the student to participate in research, observe, collect, perform jobs at the station, etc. A report is expected from each student at the end of the project. Normally these would be performed between July 1 and August 15. Insurance coverage is through Earthwatch.

D. New Business

1. Itasca is a 4 1/2 hr drive from Minneapolis. It would help if those renting cars could take passenger(s). Bemiji is only 40 miles from the station, but flights to there are expensive. The station indicated they could pick up visitors there. An additional optional field trip in Minnesota, perhaps to Cedar Creek Field Station, (also in the Minnesota network), could occupy travelers on Saturday and permit savings in air fare by having their stay include a Saturday.

2. In appreciation. Jerry Rozen thanked Susan Allen and her staff for hosting this meeting in a most friendly fashion. The group expressed its gratitude again to Joe Merritt for his work as the Editor and for producing the OBFS Directory. Finally, there was appreciation to the Secretary/treasurer, particularly to Becky Palmer who works so effectively in the office at Tyson Research Center.

E. The meeting was adjourned.

\* \* \* \* \*

OBFS STANDING COMMITTEE MEMBERSHIP - 1990

RESEARCH

- \*\*Steve Havera
- Art McKee
- Bill Porter
- Jack Stanford
- Steve Threlkeld
- Rich Wyman

ADMINISTRATION

- Nevin Aspinwall
- \*Alan Grundman
- Jeff Kennedy
- \*\*\*George Lauff
- Linda Vescio

PUBLIC RELATIONS

- Nevin Aspinwall
- \*Laura Carter
- Jeff Froke
- Jeff Kennedy
- Joe Merritt
- Paul Siri
- Mark Stromberg
- Linda Vescio

EDUCATION

- \*Susan Allen
- Jeff Burkhart
- Ross Shaw

PROGRAM

- Vice-president
- (to be determined)
- Susan Allen
- (last prior host)
- Don Siniff
- (current host)

- \* - Chairperson, last yr of term
- \*\* - " first yr of 2 yr term
- \*\*\* - Ad Hoc



## II "YE OLDE OFFICIAL BALLOTTE"

Please return to OBFS, P.O. Box 351, Eureka, MO 63025 by 12/30/89  
(ONLY station members eligible to vote)

NOTE: SEE REVERSE SIDE FOR BIOGRAPHICAL DETAILS OF EACH CANDIDATE

### I ELECTION OF PRESIDENT

NOMINEE: Bob Fisher

NOMINEE: Jerry Rozen

WRITEIN:

### II ELECTION OF VICE-PRESIDENT

NOMINEE: Susan Allen

NOMINEE: Nevin Aspinwall

WRITEIN:

### III ELECTION OF SECRETARY/TREASURER

NOMINEE: Dick Coles

WRITEIN:

### IV ELECTION OF EXECUTIVE COMMITTEE

MEMBER AT LARGE - 2 yr. term

NOMINEE: Dave Mahan

NOMINEE: Wade Sherbrook

WRITEIN:

## Biographical details-- OBFS Candidates

### PRESIDENT

*Robert Fisher*

Professor of Biology, Juniata College  
Director, Raystown Biological Station  
OBFS: Nominating committee, Program committee, Historian  
Member of OBFS since 1971;  
Research interests: Field Ecology: Energetics of movements of small mammals and fishes

*Jerome G. Rozen, Jr.*

Curator, Department of Entomology, American Museum of Natural History and former Deputy Director for Research. Active as member of Board of Directors on several field stations. Activities in OBFS includes: Vice-President and Chair of Program Committee, Member of Ad Hoc Committee on Constitution and Bylaws, AIBS Representative for OBFS, NSF sponsored workshop on needs of biological field stations. Member of OBFS since 1982. Research interests: systematics of hymenoptera.

### VICE PRESIDENT

*Susan Allen*

Director, Rocky Mountain Biological Laboratory. Poster Editor; Education Committee, member and Chair. Hosted 1989 OBFS meeting. Made several presentations at OBFS meetings. Member of OBFS since 1986. Research interests: winter movements of gray jays and rosy finches near RMBL; avian biogeography of South America.

*Nevin Aspinwall*

Professor of Biology and Director of the Reis Biological Station, St. Louis University. Member of OBFS since 1984. Serves on Publicity, Administration and Facilities Committees of OBFS. Research Interests: Evolutionary biology: population biology of fish and plant communities.

### MEMBER AT LARGE

*Dave Mahan*

Associate Director, Au Sable Institute for Environmental Studies. Formal presentations at OBFS on two occasions. Member of OBFS since 1986. Research interests: aquatic ecology: stream ecosystem structure and function.

*Wade Sherbrook*

Director, Southwest Research Station. Serves on committees of Administration and Facilities for OBFS. Member of OBFS since 1985. Research interests: biology of horned lizards; animal coloration and pigment cells and the evolution of hormonal mechanisms of color change in vertebrates.

### III COMMITTEE ACTIVITIES

#### A. BROCHURE COMMITTEE

Survey Results  
from Members at 1989 Annual Meeting  
OBFS

Mark Stromberg  
Hastings Reserve

In order to write a brochure which contained a little useful information on the who what and where of OBFS members, I asked a few questions of the members present at our very enjoyable meeting in Gothic, Colorado. These questions were, 1) How many researchers are actively doing studies on your field station, 2) How many students- college or high school- are involved with your field station, 3) How many visitors do you have each year, and 4) How many articles or books or theses are produced each year? In addition, I added data from the OBFS directory on the number of staff and the number of hectares for each station, as available. The data are here as a table. Member stations may feel free to correct their entry if needed.

The only real use of these data was to generate some reasonably plausible estimates for the brochure. I took the totals as an estimate of about half of the the member stations and doubled these numbers for the brochure, being careful to use weasel words like "about", "over", etc. This are rough estimates, but certainly adequate for purposes of a brochure. By the way, I need your help with some photos for the brochure, so look elsewhere in this newsletter for that solicitation.

Beyond this, I used these data to investigate, again in a limited way, factors that characterize some field stations as outstandingly "productive". Using the number of publications as some index to the "productivity" of a field station, I made some comparisons. Using the "number of publications" for ranking is, of course, not the best way to rate a biological field station, as anyone who has admired the view from or fished in the East River near RMBL would testify. But such an index seems popular with academic administrators, for better or worse. Stepwise regression was used to compare this variate to the others I sampled. As one might guess, the first variable to enter was "Number of active researchers" ( $R^2 = 0.517$ ,  $F = 25.7$ ). Nothing very surprising here; the more bodies out there, the more publications. The next variable to enter was "Number of Staff" which increased  $R^2$  to 0.654 ( $F = 9.13$ ). None of the other variables had high enough partial correlations to be included in the equation ( $F$  to enter was set at 4.0). Size alone, it would appear, is not all that critical.

Here is the correlation matrix for the variables under consideration. This pretty much repeats the analysis in the stepwise regression, but gives the insight that the number of visitors and students are correlated (counted twice?). I think this analysis provides some quantification to the readily observed reality that if you have someone to help with the plumbing, cooking, housing, administration or whatever, you have more time to write and publish.

	Name	No. Active Researchers	College, High School Students	No. Visitors	No. Articles, Books, Theses	# Staff (DIR)	Hectares (DIR)
1	Adiron. Ecol. Center	110	3500	7000.000	50	14.000	6000
2	Andrews Exper. Forest	70	30	1000.000	50	4.000	6400
3	Ano Neepe Island	8	15	0	2	2.000	10
4	Big Creek - U. Ca.	20	250	400.000	5	*	*
5	Bodega Marine Lab U. Ca.	100	150	6000.000	50	55.000	147
6	Calder - Fordham, NY	5	10	100.000	8	*	*
7	Cascade Head Exp. Forest	16	40	200.000	10	*	*
8	Cedar Creek, Minnesota	45	175	150.000	20	5.000	2185
9	Cedar Point Biol. Stat.	20	100	50.000	15	3.000	534
10	CMU Biol. Res. Sta. Bur. Isl.	8	260	100.000	8	*	*
11	Delta Marsh	30	1000	100.000	10	4.000	932
12	Flathead Lake, Montana	25	100	1000.000	30	14.000	87
13	Forbes Biol. Sta.	20	100	400.000	10	*	*
14	Granite Mtns Res.	26	380	240.000	3	*	*
15	Hancock Biol. Stat.	25	45	400.000	10	4.000	30
16	Hastings Reserve	40	100	300.000	10	4.000	911
17	Hatfield Marine Sta. OSU	140	200	435000.000	40	217.000	*
18	Hawaii Inst. Marine Biol.	80	1400	2000.000	25	*	*
19	James Reserve - U. Ca.	15	2000	1000.000	3	*	*
20	Jasper Ridge	90	500	5000.000	25	4.000	481
21	Kansas Ecological Res.	20	300	100.000	17	3.000	749
22	Lake Istace	75	500	1500.000	15	4.000	16
23	Long Marine Lab	50	50	40000.000	8	*	*
24	Maiheur Field Stat	27	98	14000.000	6	*	*
25	Mountain Res. Sta.-U. Co...	25	120	200.000	10	7.000	2400
26	Mt. Meadows PR	4	30	0	0	*	*
27	Powdermill Biol. Sta.	10	500	3000.000	10	8.000	810
28	Roystown Field Sta.	1	200	50.000	0	0	320
29	Reis Biological Station	10	200	200.000	5	2.000	100
30	RMBL - Gothic, Colorado	120	40	2000.000	40	3.000	85
31	Sagehen Field Sta. U. Ca.	25	100	200.000	5	2.000	3500
32	Santa Cruz Island	30	300	200.000	10	2.000	24900
33	SNU-Chacon Tropic. C.R.	1	10	20.000	0	*	*
34	Southwest Res. Sta. - AZ	140	300	1300.000	15	4.000	36
35	St. Catherine's Island	15	20	1000.000	15	*	*
36	Treohaven	2	400	7000.000	2	5.000	480
37	Tyson Res. Center	15	3000	10000.000	10	24.000	800
38	Univ. Michigan	100	500	450.000	50	80.000	925
39	Valentine SNRRL	100	60	300.000	20	3.000	71
40	Whittell Forest	12	2	400.000	2	1.000	1000

Correlation Matrix for Variables: X<sub>1</sub> ... X<sub>6</sub>

	* Visitors	* Stude...	* Activ...	* Staff ...	Hectare...	* Articl...
* Visitors	1					
* Students: ...	.708	1				
* Active Re...	.164	.135	1			
* Staff (DIR)	.278	.178	.345	1		
Hectares (DIR)	-.075	.09	-.036	-.099	1	
* Articles, ...	.248	.216	.719	.596	.042	1

Note: 14 cases deleted with missing values.

## Photographs Needed!!

The Public Relations Committee is requesting that as many stations as possible send photographs for consideration in the upcoming brochure. We plan to use 4-8 photos of people learning out in the field station. Please send either good black and white prints or color prints. We are looking for photos of people face to face with each other and/or with natural objects. I can only return material if you send a stamped, self-addressed envelope. If you have any great graphics (outline drawings, bold, attention-getting visual images) which relate to biological field stations, please send these along for consideration. You will get a credit line next to any photo or graphic we use. Please help! This will keep out costs down and help produce a brochure which better represents your field stations. Thanks!

Send to:

Mark R. Stromberg  
University of California  
Hastings Natural History Reservation  
24001 Martin Road  
Carmel Valley, CA 93924

# QUESTIONNAIRE

November 10, 1989

Dear OBFS Member:

The Public Relations Committee needs your help with providing information for the OBFS brochure being finalized. Please take a couple of minutes to answer the following questions (even if you provided us with numbers at the OBFS meeting).

Thank you for your help.

Laura S. Carter, Chairman  
OBFS Public Relations Committee

-----  
STATION NAME \_\_\_\_\_

NAME OF RESPONDENT \_\_\_\_\_

ADDRESS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TELEPHONE \_\_\_\_\_

FOR A TYPICAL YEAR AT YOUR FIELD STATION, PLEASE INDICATE:

1. Number of active researchers: \_\_\_\_\_
2. Number of college and high school students served: \_\_\_\_\_
3. Number of visitors (programs, elem. school students, hikers, etc.) \_\_\_\_\_
4. Number of publications (theses, articles, books, etc.) \_\_\_\_\_

PLEASE RETURN BY DECEMBER 10, 1989 TO:

DR. MARK STROMBERG  
HASTINGS NATURAL HISTORY RESERVE  
STAR ROUTE, BOX 80  
CARMEL, CA 93924

## ATTENDANCE LIST - 1989 MEETING

Host Station: RMBL  
Crested Butte CO  
Susan Allen

Nevin Aspinwall  
Reis Biological Station  
Missouri

Philippe S Cohen  
Granite Mountain Reserve  
California

Peter Connors  
Bodega Marine Lab  
California

Steve Davenport  
Long Marine Lab  
California

Daniel R. Dawson  
Valentine Eastern Sierra  
California

Leo R Finkenbinder  
SNU-Chacon Tropical Field Sta  
Oklahoma

Robert L. Fisher  
Raystown Field Station  
Pennsylvania

Alan Grundman  
Jasper Ridge Biological Pres  
California

Michael P Hamilton  
U C James San Jacinto Mnt Res  
California

Stephen P. Havera  
Ill Natural History Survey  
Illinois

Philip Helfrich  
Hawaii Ins of Marine Biology  
Hawaii

Lucile A. Housley  
Malheur Field Station  
Oregon

David Inouye  
Mountain Research Station  
Colorado

Tony Joern  
Cedar Point Biological Station  
Nebraska

Jeffery Kennedy  
UC Natural Reserve System  
California

Dean Kettle (Rep)  
Kansas Ecological Res  
Kansas

Robert King  
Biol Field Sta - Beaver Island  
Michigan

Harold E Klieforth  
Whitell Forest  
Nevada

George H. Lauff  
Kellogg Biological Station  
Michigan

Lyndal Laughrin  
Santa Cruz Island Reserve  
California

David Mahan  
Au Sable Institute  
Michigan

Arthur McKee  
Andrews Experimental Forest  
Oregon

Corky McReynolds  
Treehaven Field Station  
Wisconsin

Joseph F. Merritt  
Powdermill Nature Reserve  
Pennsylvania

William Porter  
Adirondack Ecological Ctr  
New York

Mark Reynolds  
Sagehen Creek  
California

Gordon Robinson  
Delta Marsh  
Manitoba

Jerome G. Rozen, Jr.  
American Museum of Nat History  
New York

Gerald Scherba  
Desert Studies Center  
California

Ross F. Shaw  
Thomas Crowley Laboratory  
Washington

Wade C Sherbrooke  
Southwestern Research Station  
Arizona

Donald B Siniff  
Itasca Forestry & Biol Sta  
Minnesota

Jack A Stanford  
Flathead Lake Biol Sta  
Montana

Mark R Stromberg  
Hastings Natural History Res  
California

Jim Teeri  
Univ Michigan Biol Sta  
Michigan

John R Tester  
Cedar Creek Natural History  
Minnesota

David S White  
Hancock Biol Station  
Kentucky

#### Individual Members

Laura S. Carter  
E.N. Huyck Preserve  
(Bd of Directors)

Margaret H Fusari  
UCSC Campus Reserves  
California

Royce Hayes  
St Catherine's Island  
Georgia

Sarah Greene  
Cascade Head Exp Forest  
Oregon

James N Layne  
Archbold Biol Station  
Florida

Dennis Macknak (for C. Davies)  
Churchill Northern Studies  
Manitoba

Steve Prchal  
Sonoran Arthropod Studies  
Arizona

John Smiley  
Big Creek Reserve  
California

John Tester  
Cedar Creek Natural Hist  
Minnesota

Stephen Threlkeld  
Calder Conservation & Eco  
New York

Linda Vescio  
Cedar Point Biological Station  
Nebraska

#### Visitors

Janet Bardwell  
Sonoran Arthropod Studies  
Arizona

Jan Eberhardt  
Kellogg Biol Sta  
Michigan

James Edwards  
National Science Foundation  
Washington D.C.



Susan Hendricks  
Hancock Biol Station  
Michigan

Donna King  
Beaver Island  
Michigan

John Maron  
Bodega Marine Lab  
California

Jon Ross  
Lake Itasca Forestry & Biol  
Minnesota

Roger Samuelson  
Un Calif Natural Res Sys  
California

Paul Siri  
Bodega Marine Lab  
California

Cindy Stead  
Granite Mountain Res  
California

Lou Wilkens  
St Louis Aquacenter  
Missouri

## CURRENT STATUS OF OBFS MEMBERSHIP

143 members - 92 station members; 51 individual members  
8 new members      8 New Directors at Member Stations  
4 resigned

### NEW MEMBERS

Dr. Leo Finkenbinder - Southern Nazarene Univ OK  
Sarah E. Green - Cascade Head Experimental Forest OR  
Michael Hamilton - James San Jacinto Mountain Res CA  
Dr. Steven J. Prchal - Sonoran Arthropod Studies AZ  
Dr. Graham H. Pyke - Australian Museum Sydney Australia  
Shelley A. Shreffler - Katherine Ordway Nat History MN  
Wintfred L. Smith - Reelfoot Lake Research & Teaching TN  
Dr. Nathaniel T. Wheelright - Bowdoin Scientific Sta ME

### NEW DIRECTORS AT MEMBER STATIONS

Dr. Kenneth Cummins - Pymatuning Lab of Ecol PA  
John W. Fitzpatrick - Archbold Biological Sta FL  
Dr. Elizabeth H. Gladfelter - West Indies Lab Vir Island  
Ronald A. Hellenthal - Notre Dame Properties WI  
Katharine Parsons - Manomet Bird Observatory MA  
Dr. Dennis A. Powers - Hopkins Marine Station CA  
Dr. Mark R. Stromberg - Hastings Natural History CA  
Dr. Henri G. Willard - Tech Aqua - Upper Cumberland TN

### RESIGNED

Dr. John W. Ferner - Thomas More College KY  
Charles E. Kupchella - Ogden College Science KY  
Linda E. Leddy - Ind at Manomet Bird Observatory MA  
Dr. Steven C. Roschke Ind at Thomas More College KY

# OBFS FINANCIAL REPORT

Balance Checking Account, August 31, 1988 \$13,538.57

## Income

Dues	\$4769.89	
Interest on NOW	518.90	
Interest on CD	530.63	
		<u>5,819.42</u>
		19,357.99

## Expense

Office and Miscellaneous		
Secretarial	173.65	Bal of '88
96.5 hr @ \$9.04	872.36	
Postage	215.93	
P O Box Rental	6.50	
Phone (toll calls)	34.95	
Invoices	13.40	
Copy Center & Xerox	41.85	1,358.64
AIBS Dues		100.00
AIBS Meeting		326.39
National Audubon Meeting		85.00
Newsletter		904.99
Directory		
Design-Layout	83.75	
Secretarial	550.00	
Mailing List	155.50	
Postage	2830.00	
Printing	7848.15	11,467.40
		<u>14,242.42</u>

Balance Checking Account August 31, 1989 5,115.57

Asset.....CD #6837 - \$7500.00...expires October 2, 1989

Current Net Worth.....\$12,615.57

\* \* \* \* \*

## REPORT OF AIBS REPRESENTATIVE

The AIBS Council meeting convened in mid-February 1989 in Washington, D. C. Societal representatives were brought up to date on the activities of AIBS. AIBS is the only national biological organization that provides an interface between the biological community and the Federal government. In addition to representatives of members of the society, the Council is composed of the 12 board members of AIBS and six members-at-large. One of the main purposes of the Council is to advise the Board of Directors. Council members also have a responsibility to let the adherent societies know that AIBS wishes to assist the societies in promoting their objectives and goals in the federal government.

John Patrick Jordan, administrator of the U. S. Department of Agriculture's Cooperative State Research Service, was installed as AIBS president for 1989. The president-elect, who will serve in 1990, is Paul R. Ehrlich, the guest speaker for this year's OBFS annual meeting.

The American Foundation for Biological Sciences, established by AIBS in 1987 to act as the development and program support entity for all the biological sciences, was notified that it had been designated a non-profit scientific, educational, and charitable foundation by the IRS. Donations made to the foundation will now be tax-deductible from income as charitable contributions for most Federal and State income tax purposes.

As in previous years, Council members had an opportunity to visit congressional representatives on the hill as a result of appointments set up by Charles Chambers, the Executive Director of AIBS.

Although I am a member of the Finance Committee of AIBS, I was unable to attend the meeting of the Committee in July because of a combined field trip and training course at the Estacion Biologia, Chamela, Jalisco, Mexico.

Submitted by, Jerome G. Rozen, Jr. 1989

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#### INFORMATION ONLY

New Members  
Since 1989 Meeting  
Listed in Member List

Dr Hugh Spencer  
Cape Tribulation

Dr Richard Heller  
Albright College

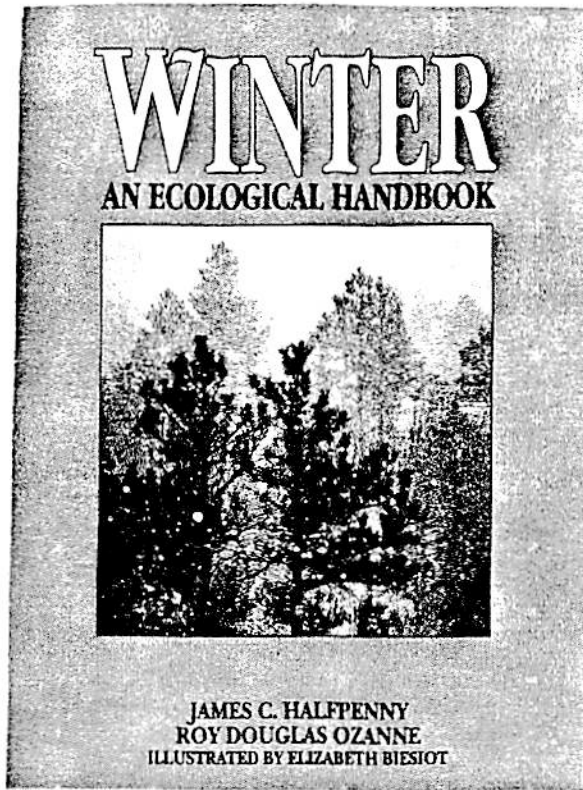
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# Winter

## An Ecological Handbook

by: James C. Halfpenny  
Roy Douglas Ozanne

Illustrated by:  
Elizabeth Biesiot

Winter: An Ecological Handbook is a guide for anyone who is curious - or needs to know - about winter. Naturalists, winter sports enthusiasts, residents of cold climates, and others who deal with winter on a daily basis will find this an enlightening as well as useful book.

Winter explores the stresses of cold temperatures on animals, plants, and people, and describes coping mechanisms, from biochemical changes to behavioral responses. The authors examine the causes, characteristics, and energy costs for offsetting the forces of winter, and they explain the variety of adaptation to extreme conditions utilized by mammals, birds, and insects, as well as plants. The human perception and experience of winter is also covered, ranging from a variety of snow terms used by natives of northern regions to the complex web of interactions between human and animal populations. A guide to winter recreation and travel features solid advice on avoiding avalanches, frostbite, and other hazards; clothing to keep you warm; shelters to build in the snow; and the best winter camping techniques and equipment.

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