

MINUTES OF THE MEETINGS  
OF THE  
INDIANA ACADEMY OF SCIENCE  
2003

COMBINED MEETING OF THE  
EXECUTIVE COMMITTEE  
AND COUNCIL

Anderson University  
4 April 2003

**Welcome and introductions.**—President Robert Waltz called the meeting to order at 2:00 PM. Attending: Edward Frazier, treasurer; Nils I. Johansen, secretary; Jim Berry, editor of the *Proceedings*; Don Ruch, president-elect; Terry R. West, past president; Nelson Shaffer, executive director; Duvall A. Jones, Youth Activities Committee chair; Holly Oster, librarian; Uwe Hansen, newsletter editor; Marcia Moore, web-site coordinator; Blake Janutolo, Botany Section chair; Dick Conklin, Nominations and Elections Committee chair; William R. Gommel, historian; Richard Kjonaas, AAS representative; David Daniell, Local Arrangements chair; Michael Watters; Ken Kiers; Dan Webster; Jim Plew; Gary Dodson.

**Approval of minutes.**—Council minutes from the 2002 Fall Meeting at Butler University were approved as corrected.

**Explanation and approval of final agenda.**—President Waltz explained the system of reporting, and that the Executive and Council meeting would be combined as were the meetings for Spring 2002. The meeting will be kept on schedule to provide time for discussion on Goals, Mission, and Vision. One hour was set aside for this on the agenda. Waltz reported that he (Waltz), Ruch (President-elect) and Shaffer (Executive Director) had been working on this.

Executive Committee Reports

**President-elect's report.**—This was covered under the introductory remarks.

**Secretary's report.**—Johansen referred to the approval of minutes from the previous meeting.

**Executive Director's report.**—Membership is at about the same level as at the same time last year (800+). We are still waiting for response from the lawyer on a legal opinion in regard to Corporate membership and its privileges. We are investigating the liability issue for field trips. Labels and e-mail addresses are available for section chairs' use. The 2003 Yearbook is almost done.

**Treasurer's report.**—The 2002 year-end finan-

cial report and the account summary (through 31 March 2003) were handed out.

**Editor of *Proceedings* report.**—We now have two issues of the *Proceedings* per year, and they have been printed and mailed on schedule. The turn-around time is about 3–6 months and currently is averaging 3.7 months. There is an 80% acceptance rate. The Editor (Berry) stressed the need for: more manuscripts (section chairs should encourage their section members to publish in the *Proceedings*); more volunteers to be reviewers; good pictures as potential cover photos for the *Proceedings*.

Committee Reports of Special Note

**Historian.**—Bill Gommel reported on the deaths of eight members this past year. The departed colleagues are: Malcolm D. Bray, Donald L. Burton, Sears Crowell, William W. Davis, Gerald E. Doeden, James A. Maple, Walter J. Moore, and Robert W. Rawlings. The names will be read at the general business meeting, and the departed will be honored with a moment of silence.

**Biodiversity/natural areas.**—Don Ruch reported on progress on an overall database and the development of a taxonomy database. The group is also planning a “Bio-Blitz” (inviting experts—and the public to observe—to spend a week-end combing a site), tentatively suggested to be held at Ft. Harrison.

**Research grants.**—In Jeff Hughes' absence, Dick Conklin summarized the work of the committee. New application forms and explanations to help in filling out the form are now available. Waltz commented positively on the quality of the work done by the committee.

**Elections.**—Dick Conklin reminded the Council that the following offices are scheduled for election: President-elect, Secretary, Academy Foundation member, and Research Grants Committee member.

**Local arrangements.**—David Daniell announced that Hanover College will host the 2004 meetings, and exact dates will be determined later. Also, Blake Janutolo announced that tomorrow's field trips will start at 8:30 AM.

**Web-site.**—Marcia Moore submitted a written report and answered questions from the Council.

**Past-president.**—Terry West reminded the council that this year the President-elect should come from the physical sciences area (rotating; two years

of life science representatives followed by a physical science representative to assure that all groups of the Academy will be represented over time).

**Executive director.**—Nelson Shaffer summarized reports from Hughes, Smeltz and Guthrie. The Foundation's income was about the same as last year, and the Foundation is pleased with Merrill-Lynch as the broker.

**Amendments.**—Uwe Hansen presented to the Academy a motion from the committee regarding Emeritus members. By-laws Article 1, Section 1. Item (7) will now read:

(7) **Emeritus Member.** A member who is 65 years of age or over, is retired and has been a member of The Academy for 25 years or more. Petitions for Emeritus Membership must be submitted to the Executive Director, who confirms eligibility. Newly certified Emeritus Members are recognized at the annual meeting.

Unanimous approval.

**Library.**—Holly Oster stated that the new construction at the Indiana State Library is coming to an end, and the Academy archives will be in order by this summer. She also reminded all past presidents of the Academy to send her a photo for the Archives.

**AAAS representative.**—Richard Kjonaas submitted a written report.

**Treasurer.**—Ed Frazier indicated that there was possibly a need for a dues increase. The Academy cannot rely on continued monies from the Foundation for operating purposes as the rules currently are written. Discussion ensued regarding the impact of a possible dues increase and its impact on the overall number of members. No decision was reached, but the Executive Director will look into the matter and report back the experiences from other state academies in similar circumstances.

#### Goals, Mission, and Vision

President Waltz outlined his philosophy on the future of the Indiana Academy of Science. The goal is benchmarking where we are and setting a course for the future. He summarized his thoughts in, "We need to look a little bit higher." Gommel raised the issue that we never have had a (standing) long-range planning committee, and that maybe we needed that because we (the Academy) need that continuity. Waltz suggested that the executive officers be part of that committee and that the Council be the doers, the arms and legs of the committee. He encouraged everyone to submit ideas to him. He also encouraged section chairs to encourage individual members to submit ideas. Don Ruch reminded everyone that we need follow through. August 1 was suggested as a meeting day for further discussion. It was decided that the meeting site will be at Butler University.

The last point was to go around the table and list the action items from several of the members present. In addition to work in the individual sections and committees, the following items were raised:

Bill Gommel, with assistance and help from Moore, Oster, Shaffer and the section chairs, will work on publicity and how to give out information (to the news media) so that it might actually "get on the air."

Uwe Hansen proposed a workshop, with suggestions for a speaker's bureau. He will have a formal proposal by August.

Nelson Shaffer suggested videotaping the *Speaker Of The Year* presentation as something the Academy could use and distribute as news and information about the Academy.

Holly Oster will work with Nelson Shaffer and in general be the contact point.

The meeting adjourned at 5:36 PM.

Respectfully submitted,  
Nils I. Johansen. P.E.  
Secretary

## COMBINED EXECUTIVE COMMITTEE AND COUNCIL MEETING

Anderson University  
16 October 2003

President Robert D. Waltz called the meeting to order at 3:01 PM. Attending: Edward Frazier, Nils I. Johansen, Jim Berry, Frank A. Guthrie, Don Ruch, Nelson Shaffer, Terry West, Bill McKnight, Holly Oster, Uwe Hansen, Jeff Hughes, Blake Janutolo, Damian Schmelz, Amy Sheaffer, Richard Kjonaas, Dick Conklin, Gary Dodson, David Daniell, Dan Webster, Paul Rothrock, John Shutt, Jim Gammon, Stanley S. Shimer, William R. Gommel, Thomas P. Simon.

The minutes of the previous meeting were approved.

#### Committee Reports

**Treasurer.**—Ed Frazier passed out the financial report. The IAS is close to the budget, but a possible dues increase and an increase in meeting fees will be discussed at the budget meeting in December 2003.

**Executive Director.**—The IAS has 873 members in 2003. Nelson Shaffer discussed membership trends and distributed a list of contact persons for the media.

**Proceedings editor.**—Jim Berry said there will be two issues per year, and they are listed with the appropriate indexing organizations.

**Newsletter editor.**—Uwe Hansen reminded the attendees to submit science-related comments to the editor.

**Secretary.**—Johansen distributed minutes of the Spring meeting. The minutes were approved.

**Foundation Committee.**—Frank Guthrie distributed the report from the Foundation Committee.

**Natural Resources Commission.**—Damian Schmelz distributed a report.

**AAAS representative.**—Richard Kjonaas gave a summary of activities.

**Elections.**—Dick Conklin announced results of the election: President-elect: Uwe Hansen; Secretary: Nils I. Johansen; Foundation: Wendell McBurney; Research Grants: James Bandoli.

**Local arrangements.**—Dave Daniell gave a summary. Next year the Spring and Fall meetings will be at Hanover College.

**Publications.**—McKnight said page charges for the *Proceedings* will be rescinded for 2004.

**Library.**—Holly Oster summarized the current state of affairs (construction, remodeling, access to records) at the Indiana State Library. There is an IAS display case in the lobby of the library.

**Biodiversity.**—Rothrock submitted the annual report. Tom Simon gave a progress report on the data base and the upcoming "Bio-Blitz."

**Speaker of the Year.**—Robert Shutt reminded the Academy that he always needs nominations for good speakers.

**Past-president.**—Terry West reported on the Engineering Section and also on the need for section chairs to communicate with each other.

**Awards.**—Jim Gammon announced the following awards: Distinguished Scholar: Dr. Frank Edmondson; Outstanding Service: Dr. Damian Schmelz; Fellow: Dr. Robert Shutt. Nelson moved to adopt the slate; passed unanimously.

**Grants.**—Hughes summarized the current status.

**Science education.**—Shimer summarized the work.

#### Old Business

**Website.**—Bob Waltz gave a report for Marcia Moore.

**Membership.**—Nelson Shaffer summarized the membership status.

**Youth activities.**—Don Ruch discussed the procedure for judging student presentations, which will be discussed again at the Spring 2004 meeting.

**Future meeting dates.**—Jeff Hughes announced that the Spring meeting will be at Hanover College on 16–17 April and the Fall meeting will be on 28–29 October 2004.

**Budget meeting.**—The meeting will be at Ball State University at 10 AM on 13 December.

#### New Business

**IAS Oversight Committee.**—Bob Waltz suggested that a committee composed of the Executive Director, President, Past-President and interested members be established. It was suggested that the immediate Past-President chair the committee. The committee will be a sub-segment of the Council.

President Waltz will work on details and report back.

**Bio-Blitz.**—Tom Simon explained the concept further.

**Affiliate Members.**—Nelson moved, Frazier seconded a motion that the *Environmental Law Group*, *Science Writers of Indiana*, and the *Science Alliance* be given affiliate organizational status according to Article IX in the By-laws. It was approved.

**Section reorganization.**—Bob Waltz suggested the Council review the section offerings every five years. At the Spring meeting 2004 there will be a discussion of a possible need for a section in Mathematics, Statistics and Computer Science.

**Corporate membership.**—President Waltz will continue to work on the issue of corporate memberships. This may also be a Spring 2004 issue.

**Concluding Comments.**—President Waltz summarized the meeting discussions. The meeting adjourned at 5:11 PM.

Respectfully submitted,  
Nils I. Johansen, P.E.  
Secretary

### GENERAL BUSINESS MEETING

Anderson University  
17 October 2003

President Robert Waltz thanked Anderson University for hosting the meeting. He announced the award winners as recorded in the Council minutes. There was a moment of silence honoring the members of the Academy who died in the past year. The election results, as recorded in the Council minutes, were announced. It was announced that next year's meetings will be at Hanover College. The President thanked the membership for their support during his year as president. President-Elect Don Ruch pledged to continue Waltz' work. Executive Director Nelson Shaffer formally thanked Waltz for his work, and this was followed by the applause of the membership. The meeting was adjourned 2:00 PM.

Respectfully submitted,  
Nils I. Johansen, P.E.  
Secretary

### BUDGET MEETING

Ball State University  
13 December 2003

President-elect Don Ruch called the meeting to order at 10 AM. Attending: Don Ruch, Terry West, Ed Frazier, Bill McKnight, Nils I. Johansen, Paul Rothrock, David Daniell, Jeff Hughes, Frank A. Guthrie, Uwe Hansen, Nelson Shaffer.

The agenda was approved by consensus.

Ed Frazier gave a review of the fiscal year and presented a summary of the accounts. The final ac-

count summary includes the financial support provided by the Academy Foundation.

**Short-term fiscal goals.**—Jeff Hughes discussed the research grants. The Academy newsletter should publish the titles of awards, as should local newspapers and institutions.

Don Ruch emphasized the need for the Academy to balance the operating budget. There was comment on the temporary support from the Academy Foundation.

Don Ruch asked for a motion to request the Budget Committee and the Council to authorize electronic voting. Frazier moved, Hansen seconded, Guthrie opposed; all others in favor. The matter was referred to the Amendments Committee for presentation at the Spring 2004 meeting.

Ed Frazier moved to approve the proposed registration fees for the Fall 2004 meeting. The changes raise fees \$5 overall, with the exception of student fees, which will remain the same. Rothrock seconded the motion, and it passed unanimously. The approved fees are: Members—\$25 (advance registration), \$30 (on-site); Students—as in 2003; Non-members—\$35 (advance registration), \$45 (on-site).

Don Ruch presented a motion from Bob Waltz to waive registration fees for media attendees and the Indiana Science Writers for three (3) years, with a review of the waiver in 2006. Nelson Shaffer made the motion, seconded by Rothrock; passed unanimously.

Don Ruch, for Bob Waltz, initiated a discussion on joint and/or parallel meetings with other organizations and the Academy, and if these organizations should pay Academy fees. The consensus was that joint meeting was one thing—an organization having a meeting at the same place and time could be considered a parallel meeting, without any offer to have that organization attend the Academy meeting.

Ed Frazier suggested a change in the status of the

funding for the Talent Search. Funding should come from the Foundation invested income account since this would be in line with the mission of the fund. Frazier made the motion, Daniell seconded it, and it passed unanimously.

The Membership Committee (Frazier, Shaffer, Ruch) presented a recommendation to revise the dues structure for the membership categories. The committee report passed unanimously.

**Long-range planning/financial goals.**—Following a general discussion, it was decided that Waltz, Nelson, Shaffer, Ruch, Hansen, and West will form an advertising committee and look into guidelines for obtaining revenue from advertising.

**Budget.**—Frazier moved to accept the budget as presented, with the amendments made during the meeting. McKnight seconded the motion, and it was unanimously approved.

The meeting was adjourned at 12:09 PM.

Respectfully submitted,  
Nils I. Johansen, P.E.  
Secretary

#### Executive Committee Meeting

Ball State University  
13 December 2003

The meeting was called to order at 12:05 PM.  
Present: IAS Executive Committee.

Ed Frazier moved that the treasurer be authorized to sign letters of employment for the Executive Director: \$4000.00; Editor of the *Proceedings*: \$4000.00; Webmaster: \$2000.00; Publication Chair: \$4000.00; Newsletter Editor: \$1000.00. Hanson seconded the motion, and it was unanimously approved.

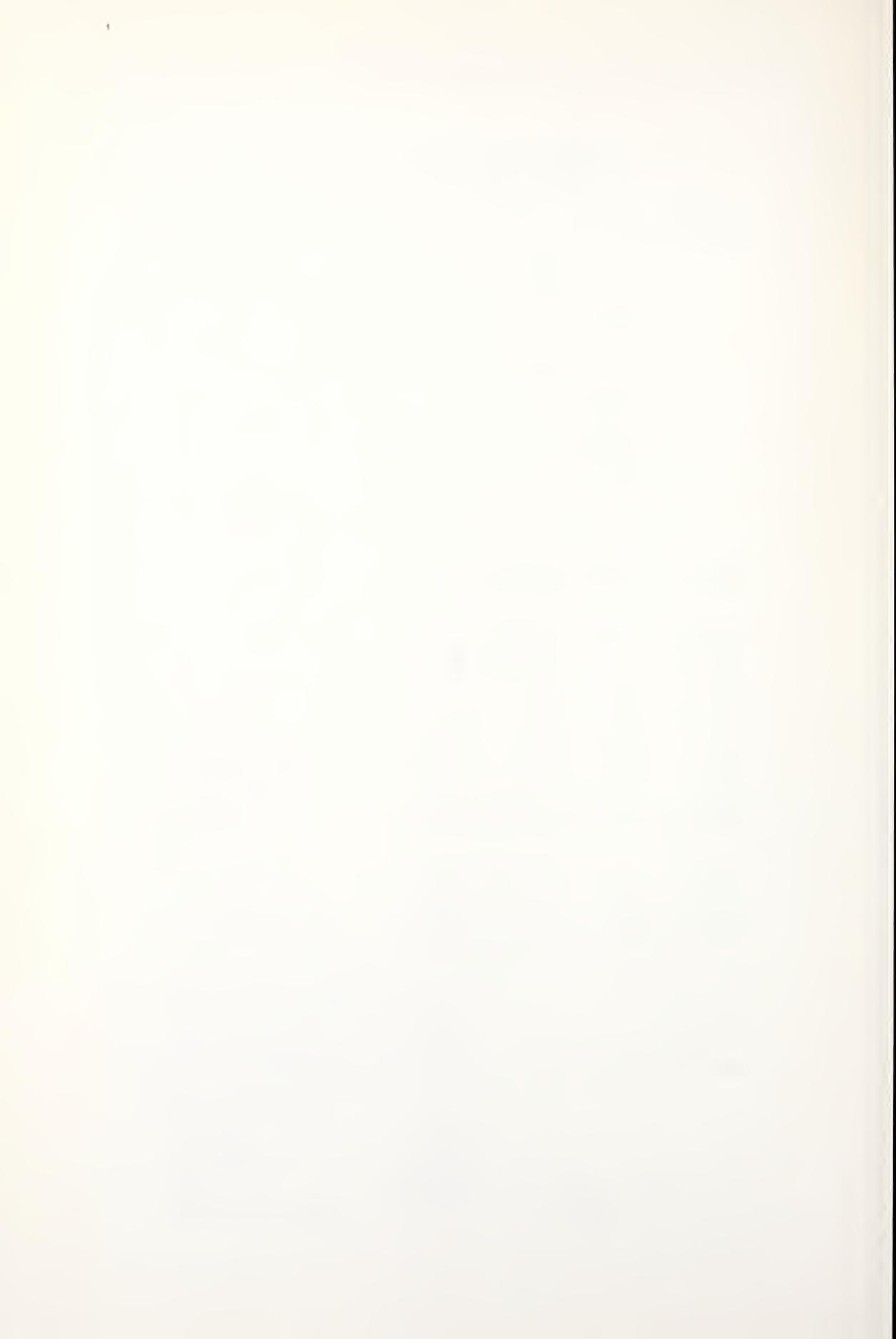
The meeting was adjourned at 12:20 PM.

Respectfully Submitted,  
Nils I. Johansen, P.E.  
Secretary

INDIANA ACADEMY OF SCIENCE  
2003 Year End Financial Report

	Balance 1-Jan-03	Revenues	Expenses	Balance 31-Dec-03
<b>OPERATING FUND</b>	7,851.37			8,692.52
Dues		22,700.00		
Interest		566.57		
Contributions		245.00		
Spring Meeting		360.00	330.00	
Annual Meeting		7,129.00	6,615.72	
Transfer from IAS Foundation		9,000.00		
Misc. Income		684.50		
Officer's Expenses			4,000.00	
Operating Expenses			4,963.20	
Financial Expenses			2,789.44	
Newsletter Expenses			2,486.69	
Library Operations			3,180.70	
Committee Expenses			0.00	
Speaker of the Year			700.00	
AAAS Representative			875.00	
Web Site Development			2,060.00	
Youth Activities			11,480.67	
<b>Operating Fund Total</b>	7,851.37	40,685.07	39,481.42	9,055.02
<b>RESTRICTED FUNDS</b>				
Proceedings	18,150.71	17,001.16	20,089.47	15,062.40
Publications	13,407.43	41,051.92	39,847.27	14,612.08
* Research Grants	14,699.97	66,939.21	65,612.16	16,027.02
Indiana Biological Survey	0.00	0.00	515.58	(515.58)
Lilly Library	6,578.44	0.00	0.00	6,578.44
Welch Fund	9,506.01	0.00	400.00	9,106.01
Life Members Fund	4,295.25	0.00	0.00	4,295.25
Past Presidents Fund	9,178.39	0.00	0.00	9,178.39
<b>Total Restricted Funds</b>	75,816.20	124,992.29	126,464.48	74,344.01
Prepaid 2003 Dues	4,255.00			4,170.00
<b>TOTAL FUNDS</b>	<b>87,922.57</b>	<b>165,677.36</b>	<b>165,945.90</b>	<b>87,569.03</b>
<b>FUNDS ON DEPOSIT</b>				
Checking Account	5,822.45	169,135.58	166,265.51	8,692.52
Money Market Savings	71,043.74	103,791.39	107,015.00	67,820.13
Cert. of Deposit	11,056.38	0.00	0.00	11,056.38
<b>TOTAL FUNDS DEPOSITED</b>	<b>87,922.57</b>	<b>272,926.97</b>	<b>273,280.51</b>	<b>87,569.03</b>
* Provided 42 senior member grants, 16 high school grants and 2 high school teacher fellowship				
<b>ACADEMY FOUNDATION FUNDS</b>				
John S. Wright Fund Account	5,999,130.00			6,366,524.00
Academy Fund Account	225,284.00			234,527.00
Invested Income Account	230,011.00			316,093.00
<b>TOTAL FOUNDATION FUNDS</b>	<b>6,454,425.00</b>			<b>6,917,144.00</b>
<b>Foundation Funded Used For:</b>				
General Fund	9,000.00			
Proceedings	5,789.16			
Publications	28,000.00			
Research Grants	65,654.66			
<b>Total</b>	<b>108,443.82</b>			
Audited February 28, 2004			Edward L. Frazier	Treasurer





# INSTRUCTIONS TO AUTHORS

(revised October 2001)

**General information.**—Manuscripts and all correspondence should be sent to the Editor. To be eligible for publication in the *Proceedings*, at least one author must be a member of the Academy. Papers that have been presented at an Academy meeting may be given preference for publication. Submission of a manuscript to the Editor implies that it has not been sent to another publication, nor has it been published elsewhere. If it is accepted for publication in the *Proceedings*, it may not be republished without the written consent of the Academy.

All manuscripts are evaluated by referees. Submit three copies of the manuscript. Figures in manuscripts for review may be submitted as photocopies, and they should be approximately the size that they will be printed in the *Proceedings*.

After the manuscript has been accepted, the author will be asked to submit the manuscript as a paper copy and on a computer disc in a widely-used word processing program. Indicate clearly on the computer disc the **word processing program** and the **type of computer** (Mac or PC).

Galley proofs will be sent to the primary author for approval and correction.

**Style.**—Do not use right or full justification. Also, use a non-proportional font (e.g. Courier, but not Times Roman).

**Title page.**—The title page should include (1) the title in capital letters, (2) each author's name and address, (3) the running head (see below), and (4) the complete name, address, and telephone number of the author with whom proofs and correspondence should be exchanged, a FAX number and electronic mail address if available.

**Abstract.**—All manuscripts have an abstract, which should summarize the significant facts in the manuscript. The "ABSTRACT" heading in capital letters should be placed at the beginning of the first paragraph set off by a period. Use complete sentences, and limit the abstract to one paragraph and 250 words.

**Keywords.**—Give 3–5 appropriate keywords following the abstract.

**Text.**—Double-space text, tables, legends, etc. throughout. Three categories of headings are used. The first category (METHODS, RESULTS, etc.) is typed in capitals, centered, and on a separate line. The second (lower) category of heading, in bold type, begins a paragraph with an indent and is separated from the text by a period and a dash. (This paragraph begins with an example of this heading.) The third heading category may or may not begin a paragraph, is italicized and followed by a colon. (The paragraph below is an example.) Use only the metric system unless quoting text or referencing collection data.

**Citation of references in the text:** Cite only papers already published or in press. Include within parentheses the surname of the author followed by the date of publication. A comma separates multiple citations by the same author(s) and a semicolon separates citations by different authors, e.g., (Smith 1990), (Jones 1988; Smith 1993), (Smith 1986, 1987; Smith & Jones 1989; Jones et al. 1990).

**Literature cited section.**—Use the following style, and include the full unabbreviated journal title. Repeat the name for multiple references by the same author. Note that book titles have the first letter of each word capitalized.

Walter, J. & B. Hallet. 1979. Geometry of former subglacial water channels and cavities. *Journal of Glaciology* 23:335–346.

Walter, J. 1992. The significance and complexity of communication in moths. Pp. 25–66. *In* *Insect Communications: Mechanisms and Ecological Significance*. (P.N. Work & J.S. Rivers, eds.). Princeton University Press, Princeton, New Jersey.

**Footnotes.**—Footnotes are permitted only on the first printed page to indicate current address or other information concerning the author. These are placed together on a separate page at the end of the manuscript. Tables and figures may not have footnotes.

**Running head.**—The author's surname(s) and an abbreviated title should be typed all in capital letters and must not exceed 60 characters and spaces. The running head should be placed near the top of the title page.

**Tables.**—These should be typed double-spaced, one table to a page and numbered consecutively. Most tables contain only three horizontal lines (see recent issues for examples). Do not use vertical lines or shading. Include all pertinent information in the table legend (no footnotes).

**Illustrations.**—All art work must be camera-ready (mounted and labeled) for reproduction. Figures should be arranged so that they fit (vertically and horizontally) the printed journal page, either one column or two columns, with a minimum of wasted space. When reductions are to be made by the printer, pay particular attention to width of lines and size of lettering in line drawings. Multiple photos assembled into a single plate should be mounted with only a minimum of space separating them. In the case of multiple illustrations mounted together, each illustration must be numbered Fig. 1, Fig. 2, etc.) rather than given letter (A.B. etc.) designations. The name(s) of author(s), and an indication of top edge, and whether the illustration should be one or two columns wide, should be written on the back of the illustration. The overall dimensions should be no more than 11 inches (28 cm) × 14 inches (36 cm). Larger drawings present greater difficulty in shipping and greater risk of damage for which the *Proceedings* assumes no responsibility. In manuscripts for review, photocopies are acceptable, and should be reduced to the exact measurements that the author prefers in the final publication. Make notations in the text margins to indicate the preferred position of illustrations in the printed text. Color plates can be printed; but the author must assume the full cost, currently about \$600 per color plate.

Legends for illustrations should be placed together on the same page(s) and separate from the illustrations. Each plate must have only one legend, as indicated below:

Figures 1–4.—Right chelicerae of species of *Centruroides* from Timbuktu. 1. Dorsal view; 2. Prolateral view of moveable finger; 3. *Centruroides* holotype male; 4. *Centruroides* male. Scale = 1.0 mm.

**Page charges and reprints.**—Page charges are currently \$10 per journal page for members of the Academy and \$70 per page for non-members. Corrections in proof pages must be restricted to printer's errors only; all other alterations will be charged to the author (currently \$3 per line).

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