

## MINUTES OF THE MEETINGS OF THE INDIANA ACADEMY OF SCIENCE 2006

### MEETING OF THE EXECUTIVE COMMITTEE

Ball State University  
21 April 2006

The Executive Committee met briefly before the Council meeting. Those attending were Frank Guthrie, Ed Frazier, Clare Chatot, John Schutt, Nelson Shaffer and Jim Berry.

The minutes of the previous meeting were distributed and approved.

President Clare Chatot, Gary Dodson, Linda Airy, and Jim Bandoli were asked to review IAS statements on the teaching of evolution. Clare Chatot wanted the statement to be in the newsletter and on the web site. The new version was approved to be taken to the Council.

President Chatot mentioned that the Cell Biology and Microbiology section and the Molecular Biology section may merge into a single section as part of Uwe Hansen's technical initiative.

A request was made to add the section to which members belong in the yearbook. Nelson will add the section designation.

The meeting was adjourned at 2:30 PM.

### MEETING OF THE COUNCIL

Ball State University  
21 April 2006

President Clare Chatot called the meeting to order at 2:37 PM. A list of agenda items was distributed, and the minutes of the previous meeting were approved unanimously.

Treasurer Ed Frazier explained the financial accounts and noted that the figures are incomplete at this early date. We have not yet received funds from the state for the *Proceedings*. Publications have generated some money, and a small amount of grant money was returned.

There was no activity in the Indiana Biological Survey Account Welch Fund. The \$400 interest usually goes to a grant usually for a biologist. The Past President fund (fund-

ed by Bill Lovell) prepaid \$5,130 for last year's meeting. There were no applicants for the grant last year, and we still have \$500 in the account.

The Executive Director reported on membership and status of yearbook.

Jim Berry reported that the most recent issue of *Proceedings* included a biography of a valued and esteemed member of the Academy: Dr. Dan Webster of Hanover College. The next biography will feature Dr. Marion Jackson of Indiana State University. The Fall issue of the *Proceedings* will include the papers from the Wabash River Symposium.

Don Ruch reported that the newsletter is in good shape. He sent a note to section chairs requesting important items to include in the newsletter or for a feature article.

President-Elect John Schutt will run the student presentation competition.

President Clare Chatot wants to revise the resolution about teaching evolution in public schools. She will continue the technical initiative, with modest support to sections of the Academy to bring in a good speaker or other attraction for the meeting. She can do two or three of these initiatives at \$200–\$300. Anthropology, Science Education, and Math used this program last year. Dr. Chatot called for section proposals. Don Ruch will invite Robert Mullenbrach. Action on the resolution on evolution was deferred until later.

Frank Guthrie reported for the Academy Foundation that changing the account to Merrill Lynch has worked well. Stanley Burden and Wendell McBurney are co-trustees. The committee tries to balance income (*i.e.*, bonds with growth stocks, mutual funds, etc.). We should have enough income for the Foundation to pay for publications, the *Proceedings*, and other needs while operating within the confines of the requirements of the Wright Fund.

Don Ruch has written grants for several years, and has received a total amount of

\$60,000. This year he will need someone else to write a proposal for high school funds.

David Daniell reported that the 2007 meeting will be held at the University of Indianapolis. John Langdon is the contact person. There are no dates set yet—possibly the end of October.

Local Arrangements: For the Spring 2006 meeting, dinner will be at the Alumni Center near the football stadium. The Geology field trip will be to Brookville, and the Botany field trip will be to Ginn Woods. For the Fall meeting, there will be a buffet dinner at the Student Union. Members must park at the stadium and ride shuttle buses. There will be a planetarium show, tree identification, and the Jackson Tree book (tentative). Registration will be \$30–\$35—a bit higher this year.

Nominations and Elections: Mike Foos reported that nomination forms have been revised to require only two signatures. Forms must be submitted by May 1. We may need a new secretary, and we will need a candidate for the Academy Foundation. Also, the Research and Grants Committee needs a member from the physical sciences. Jeff Hughes will step down as chair.

Publications: Nelson Shaffer related a phone conversation from Bill McKnight indicating that he would like to step-down from the Publications Committee chair within a few years.

Resolutions: President Chatot wants IAS to issue revised guidelines about the teaching of evolution. Clare will bring the new document before the membership for a vote at the Fall meeting. Changes will be put on the web site. Ed Frazier noted that the HASTI president wrote a letter, and they formally adopted the NSF guidelines for evolution teaching. Mike Foos suggested that the new document be edited by Jim Berry. The Council voted to bring the new document on teaching evolution to the membership to be voted on at the Fall meeting.

Youth Activities: No report.

Awards Committee: They asked for nomination for fellows and other Academy awards. The committee wants a curriculum vitae along with letters of nomination.

Biodiversity and Natural Areas Committee: About 30 or so people attended the mini-bio-blight at the St. Mary's meeting.

Junior Academy: No report.

Talent Search Committee: They need volunteers for judges.

Website: Marcia Moore is ill and could not attend the meeting. Newsletters are on now on the website.

Speaker of the Year: Uwe Hansen will find a speaker. Mike Lenan has accepted a stipend for this year's speaker, but there have been no requests for talks thus far.

Natural Resources Committee: There was a written report from Damian Schmelz since he was unable to attend the meeting.

Necrologist: Dr. Gommel noted that the following members have passed away—Duvall Jones, James A. Clark, and John Finney.

We need to update the e-mail addresses we have. E-mail addresses, especially those of government employees, often are not current.

Don Ruch moved that we approve a registration fee of \$35 for the Fall Meeting to cover potential additional costs such as buses for members. Student registration fees should remain the same. It was approved.

Don Ruch inquired about the policy for students at the venue. It was decided that attendees will not get a program book if they do not register.

David Daniell said that we need to consider Fall breaks, etc. when accepting invitations from other schools, especially smaller institutions. Large schools can handle IAS meetings even if classes are in session.

The meeting adjourned at 4:05 PM.

## THE EXECUTIVE COMMITTEE

Ball State University  
2 November 2006

President Clare Chatot called the meeting to order at 1:43 pm EST. Others attending were: President-Elect John Schutt, Past-President Uwe Hansen, Treasurer Edward Frazier, Secretary Nils I. Johansen, Executive Director Nelson Shaffer, and Research Grants Committee Chair Jim Bandoli.

Minutes of the 21 April 2006 Spring Executive Committee Meeting at Ball State University were distributed and approved with corrections (motion by Uwe Hansen, seconded by Edward Frazier).

With a motion by John Schutt and seconded by Edward Frazier, there was approval of the agenda.

There was a presentation of Ian Hall of

WFYI TV 20 on the film on *The Natural Heritage of Indiana*. WFYI, a PBS station in Indianapolis, is looking for partners in developing and presenting a TV program series on the "Natural Heritage of Indiana" based on the book of the same name by past President of the Academy, Marion Jackson. A promotional DVD was shown to give a feel for the quality of the programs. Discussion of the film followed the presentation. A question was raised as to how this would benefit IAS and also about the cost of sponsorship. The consensus was that this would be a worthwhile project and needed to be pursued. There will be a discussion on funding sources and commitment at the December 2006 Budget meeting. The Budget Committee meeting will be on 9 December at 11 am (EST) at Butler University.

Old Business: With a motion by John Schutt and a second by Jim Bandoli, four new Fellows were approved. The new Fellows are Ekpo Ossom (University of Papua New Guinea), Charles Rhykerd (Purdue University), Jeffrey Hughes (Hanover College), and Thomas Simon (U.S. Fish and Wildlife Service).

A resolution thanking Ball State for hosting the meeting was read and unanimously approved for submission to the Council. The resolution will be read at the annual business meeting.

There was no new business.

The meeting adjourned at 2:35 pm (EST)

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

#### THE COUNCIL

Ball State University  
2 November 2006

President Clare Chatot called the meeting to order at 2:45 pm EST. Those attending were: Clare Chatot (President), John Schutt (President-Elect), Uwe Hansen (Past-President), Edward Frazier (Treasurer), Nils I. Johansen (Secretary), Nelson Shaffer (Executive Director), Jim Bandoli (Research Grants Committee Chair), Brent Summers (AAAS representative), Marianna J. Zamlauski-Tucker (Chair, Zoology Section), Stanley Burden (Academy Foundation), Bill McKnight (Publications Committee), Frank A. Guthrie (Academy Foundation), William R. Gommel

(Historian/Necrologist), John Langdon (Local Arrangements Committee), Ed Squiers (Past-President), Jim Berry (Editor of the *Proceedings*), Dan Webster (Past-President), Mike Foos (Nominations/Elections Committee), Donald G. Ruch (Newsletter Editor), Jennifer Metzler (Co-chair Youth Activities), Patty Zeck, Co-chair (Youth Activities), James R. Smith (Chair, Env. Quality Section), Kimberly Lyle-Ippolito (Chair, Cell Biology Section).

The minutes of the 21 April 2006 Spring Council Meeting at Ball State University were distributed and approved with corrections.

The agenda were presented and approved.

#### INDIVIDUAL REPORTS

**Treasurer.**—Ed Frazier handed out Financial Account summaries and explained the various entries.

**Executive Director.**—Nelson Shaffer handed out a report on the IAS membership, numbers and trends. He issued a plea for more members, both individual and institutional. A brief discussion ensued. Several ideas were presented as to how the membership could be increased: better interaction with the media, ask a friend to join, how to reach more of Indiana's scientists, recruit from new faculty members at our universities, work with the youth, how can IAS better help the high schools.

**Editor of the *Proceedings*.**—Jim Berry announced that the next issue of the *Proceedings* will contain the papers given at the Wabash River Symposium, as well a biography of Jim Gammon. Members were encouraged to recommend members to be honored with a biography in the *Proceedings*.

**Newsletter editor.**—Don Ruch reported that he needs information from the sections. The next President-Elect could work with him on this. Deadline for next issue is 15 November.

**Secretary.**—Nils Johansen thanked Nelson Shaffer for taking minutes at the last Spring meeting. Nils Johansen will get together with the new secretary (Heather Bruns) to assure a smooth transition.

**President-Elect.**—John Schutt will work with the Executive Director and the Executive Committee to try to find ways to increasing membership.

**President.**—Clare Chatot reminded the Council about the Technical Initiatives that the

individual Sections can use as part of their meetings and encouraged them to take advantage of this opportunity. She also presented several information items to be presented at the Business Meeting.

A statement on the Teaching of Evolution in the Public Schools of Indiana will be presented at the Business Meeting for a vote by the membership. She also mentioned that WFYI (Indianapolis PBS) is working on a TV project on the "Natural Heritage of Indiana," and has approached IAS as a potential sponsor. Don Ruch strongly supported this.

**Academy Foundation.**—Frank Guthrie gave a summary of the financial status of the Academy and the individual accounts and the management of the accounts (Merrill Lynch) and also how the foundation interacts with and supports the operations of the Academy.

**Research Grants.**—Jim Bandoli reported on the awards of grants. For the Spring, there were 28 applications and 18 were approved. For the Fall, there were 18 applications, and the awards will be made shortly after the Fall meeting.

**Programs and Invitations.**—David Danelli was not present, but his written report was passed out. The 2007 meeting will be at the University of Indianapolis, with the Spring meeting on 13 April, with Field Trips on the 14th. The Fall meeting will be October 25 and 26. John Langdon at the University of Indianapolis will be the contact person. The 2008 meeting will be at the University of Evansville, and Dale Edwards is the contact person. No dates have been set. A 2009 meeting at Purdue is being considered.

**Nominations.**—Mike Foos reported on the results of the elections: Nils I. Johansen is the new President-Elect, Heather Bruns is the new Secretary, Joyce Cadwallader is the new member of the Research Grants Committee, and Wendell McBurney was re-elected to the Academy Foundation.

**Publications.**—Bill McKnight summarized the current activities of the committee and also problems at the State Library due to Oster's illness. He also noted that there will be a limited press run of the *Plants of the Chicago Region*.

**Finance Committee.**—Ed Squiers summarized its activities.

**Youth Activities.**—Patty Zeck and Jennifer Metzler gave an oral report emphasizing the

importance of youth as future scientists and the outcomes of fairs and competitions. Nelson Shaffer reminded the Council of the opportunity for IAS members to be available as mentors to young people.

**Library.**—There was no report. Bill McKnight had covered the current status in his report on Publications.

**Awards.**—Clare Chatot announced the nominees for Fellow. The new Fellows are Ekpo Ossom (University of Papua New Guinea), Charles Rhykerd (Purdue University), Jeffrey Hughes (Hanover College), and Thomas Simon (U.S. Fish and Wildlife Service). These names will be officially accepted at the Business meeting. Dr. Chatot also encouraged the membership to nominate deserving members for Fellow or other appropriate awards. The web-site has details, forms, etc.

**Biodiversity.**—Don Ruch said that Biodiversity is an independent agency now. Upcoming meetings will focus on the possible "Bio-blitz" next summer.

**Web-site.**—Marcia Moore was not present, but she left word that there will be a transition from Butler University as location of the server to a new group. Other commercial agencies are now available at reasonable prices so we do not have to rely on Butler to support our web-site. Marcia Moore will continue as web-master.

**Speaker of the Year.**—Uwe Hansen would like to have life science input as to possible speakers and asked members with suggestions to contact him.

**Natural Resources Commission.**—Damen Schmelz was unable to attend, but his written report was distributed.

**Representative to AAAS.**—Brent Summer gave an oral report.

**Historian/Necrologist.**—Bill Gommel announced the passing of the following members over the last year: John K. Bouseman (Indiana Natural History Survey), James A. Clark (Cicero, IN), John C. Finney (Anderson, IN), Duvall A. Jones (St. Joseph's College, and President of the Academy in 1993), Benjamin Moulton (Indiana State University, and President of the Academy in 1985). The list will also be read at the Business meeting and honored by a minute of silence.

**Local Arrangements.**—Don Ruch summarized the upcoming activities. Clare Chatot

expressed her appreciation to Don Ruch for his work in preparing for the meeting.

**Budget Meeting.**—The budget meeting (for the 2007 budget) will be at Butler University on 9 December at 11 AM (EST). Budget items should be sent to Ed Frazier.

**Resolution.**—A resolution thanking Ball State University for hosting the meeting was read and unanimously approved. It will be read at the Business meeting.

**New Business.**—The proposal from WFYI

was discussed earlier and the demo DVD played. Ed Frazier made the motion, seconded by Uwe Hansen, that the Council goes on record as supporting financially this video production. It was approved unanimously.

**Adjourn.**—The meeting was adjourned at 5:08 PM (EST).

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

## INDIANA ACADEMY OF SCIENCE 2006 Year End Financial Report

	Balance 1-Jan-06	Revenues	Expenses	Balance 31-Dec-06
<b>OPERATING FUND</b>				
Dues		23,225.00		
Interest		1,592.05		
Contributions		50.00		
Spring Meeting		200.00	240.44	
Annual Meeting		8,060.00	6,798.25	
Misc. Income		4.36		
Officer's Expenses			4,300.00	
Operating Expenses			4,900.05	
Financial Expenses			2,501.92	
Newsletter Expenses			1,734.12	
Library Operations			0.00	
Committee Expenses			0.00	
Speaker of the Year			700.00	
AAAS Representative			377.53	
Web Site Development			2,000.00	
Youth Activities			0.00	
Operating Fund Total	13,212.37	33,131.41	23,552.31	22,791.47
<b>RESTRICTED FUNDS</b>				
Proceedings	9,791.13	23,527.25	19,793.14	13,525.24
Publications	15,699.30	5,281.81	9,157.21	11,823.90
* Research Grants	15,963.49	81,181.94	81,931.94	15,213.49
Indiana Biological Survey	(515.58)	515.58	0.00	0.00
Lilly Library	6,578.44	0.00	0.00	6,578.44
Welch Fund	8,674.50	189.97	0.00	8,864.47
Life Members Fund	6,295.25	2,500.00	0.00	8,795.25
Past Presidents Fund	8,778.39	0.00	200.00	8,578.39
Total Restricted Funds	71,264.92	113,196.55	111,082.29	73,379.18
Prepaid Dues	5,130.00	5,395.00	5,130.00	5,395.00
<b>TOTAL FUNDS</b>	<b>89,607.29</b>	<b>146,327.96</b>	<b>134,634.60</b>	<b>101,565.65</b>
<b>FUNDS ON DEPOSIT</b>				
Checking Account	3,097.52	134,444.54	134,488.47	3,053.59
Money Market Savings	74,961.09	86,812.32	75,000.00	86,773.41
Cert. of Deposit	11,548.68	189.97	0.00	11,738.65
<b>TOTAL FUNDS DEPOSITED</b>	<b>89,607.29</b>	<b>221,446.83</b>	<b>209,488.47</b>	<b>101,565.65</b>
<b>ACADEMY FOUNDATION FUNDS</b>				
John S. Wright Fund Account	6,502,663.84			4,722,360.16
PIA Account				2,291,000.00
Academy Fund Account	242,560.75			247,246.03
Invested Income Account	495,283.84			597,376.59
<b>TOTAL FOUNDATION FUNDS</b>	<b>7,240,508.43</b>			<b>7,857,982.78</b>

\* Provided 29 senior member grants and 23 high school grants.

**Foundation Funded Used For:**

Proceedings	13,459.25
Research Grants	77,579.14
<b>Total</b>	<b>91,038.39</b>

*Edward L. Frazier*  
Edward L. Frazier  
Treasurer



# INSTRUCTIONS TO AUTHORS

(revised May 2007)

**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. There are two categories of papers: regular feature articles (usually longer than three pages) and short communications (three pages or less). 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.

**Voucher specimens and permits:** Voucher specimens of species used in scientific research should be deposited in a recognized scientific institution. Authors must indicate that the collection of specimens, especially of threatened or endangered species, was authorized by the appropriate governmental organizations. All type specimens must be deposited in a recognized museum collection.

**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 movable finger; 3. *Centruroides* holotype male; 4. *Centruroides* male. Scale = 1.0 mm.

**Page charges and reprints.**—There are no page charges. Corrections in proof pages must be restricted to printer's errors only; all other alterations may be charged to the author (currently \$3 per line). Reprints are available only from Allen Press and should be ordered (with payment) when the author receives the proof pages.

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