

INDIANA ACADEMY OF SCIENCE COUNCIL MINUTES NOVEMBER 4, 1993

Call to Order

The meeting was called to order by President Duvall Jones at 3:50 pm in room 320 of the Stewart Center at Purdue University, West Lafayette.

The following Council Members were in attendance: Bennett, Boener, Burden, Chesak, Daniell, Dolph, Frazier, Garber, Haddock, Hicks, Jensen, Johnson, Jones, Kritsky, Lovell, McBurney, McKnight, Melhorn, Mueller, Munsee, Parker, Riemenschneider, Rothrock, Schmelz, Warden, Warnes, and Webster. Also in attendance was W. Hasenmueller.

Approval of the Minutes

The Minutes of the previous meeting held on 23 April 1993 were accepted after minor typographical errors were corrected.

President's Report (Jones)

President Duvall Jones spoke briefly in general terms about the need to strengthen the Academy.

Treasurer's Report (Frazier)

Ed Frazier presented a short summary of our current financial status:

	Beginning Balance 1/1/93	Revenues YTD	Expenses YTD	Balance on Hand 9/30/93
Operating Fund	\$19,867.89	\$24,701.34	\$15,976.64	\$28,592.59
Total Restricted Funds	<u>\$37,116.18</u>	<u>\$48,919.24</u>	<u>\$48,067.95</u>	<u>\$37,967.47</u>
Total Funds	\$56,984.07	\$73,620.58	\$64,044.59	\$66,560.06

Ed mentioned that we may have a deficit, but he did not think that it would be in the \$12,000.00 range as was previously projected.

A motion was made and seconded to receive the report. The motion passed.

Executive Director's Report (Melhorn)

Bill Melhorn commented briefly on his progress in putting together the *Operations' Handbook*.

Editor's Report (Dolph)

Gary Dolph stated that Volume 102(1-2) was being bound by Haywood Printing at this time and that our copies should be delivered to the State Library very soon. Volume 102(3-4) has 9 edited papers and 3 more are being revised at this time. Currently, no backlog exists. Volume 98 is still at IU Printing Services. A printer malfunctioned, causing even further delay.

Report of the Director of Public Relations (Kritsky)

Gene Kritsky stated that the next issue of the *Newsletter* will be out December 1.

Old Business**Report of the *Ad Hoc* Personnel Committee (Chesak)**

David Chesak presented several recommendations to the Council for consideration:

1. A motion was made and seconded that no officeholder or chairperson should receive direct remuneration for services rendered to the Academy. Budgeted funds shall be spent only for goods and services needed to facilitate the work of the respective positions. After considerable discussion, a substitute motion (amendment) was made and seconded: Services rendered shall pass through normal budgetary procedures; authority for payment may be delegated to the President and/or the Executive Director by the Executive Committee as necessary. The substitute motion was approved. The original motion was defeated.
2. A motion was made and seconded to abolish the position of Executive Director. The duties of that office were to be redefined and assumed by a Corresponding Secretary. During discussion, it was pointed out that the Council approved the establishment of the Executive Director's position 5 years ago by a vote of 22 to 1. It was also reiterated that the position was part-time and not full-time as some misinformed Council Members were led to believe. Bill Lovell read the list of specific duties from the *Operations' Handbook*. The motion was defeated on a voice vote and a hand vote of 23 to 3.
3. A concern came up relative to dues collection and tabulation. A motion was made and seconded to have dues sent to our permanent mailing address at the State Library (in care of Holly Oster), and she should then forward the dues to the Treasurer for crediting and tabulation. The motion was approved.
4. The final motion made and seconded was that funds are to be allocated to Section Chairs to facilitate the administration of their tasks. The amount is not fixed but is to be based on need and the judgment of the Budget Committee. During discussion of this motion, it was pointed out that the Academy has already made some provisions in this area under Article IV, Sectional Organization, Sec. 4: "Expenses incurred by a Section shall in no way become a financial obligation of The Academy

except as authorized in the annual budget of The Academy.” The motion was defeated.

Operations' Handbook (Melhorn)

Bill Melhorn presented a short summary of his progress in preparing the *Operations' Handbook*.

Reports of Elected Standing Committees

Research Grants Committee (Hicks)

David Hicks summarized a self-study recently completed by this Committee that showed that for the 1991-1993 period, 79% of the funded proposals came from Biology, 9% came from Physics, and 9-10% came from the remaining Sections. Is the bias due to small grant size (about \$900.00) which discourages those from academic areas where grant needs might be much greater or is this not a true cause and effect relationship?

The Committee's central concern was this: How can the Committee maximize the monetary benefits that are available to it? The monetary limit per grant is \$2,500.00, a figure which was set by Council vote some time ago. About \$37,000.00 is budgeted annually for disbursement by this Committee.

Additional comments and questions included: Can the program be made more well known in the Academy? We need more corporate sponsors to be able to increase funding. Can the Committee be given more authority (to change maximum funding limits, etc.)? Some concern was also expressed about increasing the funding for research.

Should we perpetuate the “seed money” concept or should we award fewer grants that are larger? After discussion subsided, President Jones recommitted the report to the Committee with the request that they re-evaluate the entire program with special attention to allocation and selection and report back to the Council no later than the Fall Meeting.

A summary of the grants given to college and university researchers was then presented. In the spring of 1993, 29 proposals were received. Of these, 23 grants were approved for funding at a total of \$20,400.00. In the fall of 1993, 15 proposals were received. Of these, 13 were approved for funding at a total of \$14,715.00.

A number of grants were also made to high school researchers. In the fall of 1992, 22 proposals were received. Of these, 17 were approved for funding at a total of \$2,000.00. In the fall of 1993, 26 proposals were received. As of this report, all the Committee Members had not returned their reviews.

Report of the Bonding Committee (Hammond)

We are now entering the third year of a three-year policy with Gregory and Appel Insurance of Indianapolis. Our coverage was increased to \$80,000.00 at the beginning of this three year policy period. As this bonding amount is still in line with the maximum amount of money on hand at any one time, following discussion with Edward Frazier, Treasurer, I recommend that we maintain the

current bonding level as adequate coverage for the Academy. The amount of money requested for the present year (\$188.00) represents the amount of the premium for the bonding coverage. This amount has been paid, and our policy is in effect for the 1993-1994 policy year.

Reports of Appointed Standing Committees

Amendments Committee (Zimmerman)

Jerry Zimmerman summarized the discussions of this Committee concerning the overall governance, administration, and function of the Academy:

1. There seems to be a lack of common understanding among members and officers as to the goals of the Academy.
2. The Academy seems to be losing its sense of historical context and precedent.
3. There is a lack of common understanding and agreement as to the manner in which the Academy conducts its affairs.

The recommendations of the Committee were:

1. Key policy documents of the Academy (particularly the Constitution and Bylaws) should be re-evaluated and, where necessary, modified or even created.
2. The roles and scope of authority of the various governing bodies must be better defined. Lines of authority must be clear and well defined.
3. Formal leadership development and member education are highly recommended. Member education and officer training should be part of every Spring and Fall Meeting.
4. Agendas must be realistic and appropriate to the work that needs to be accomplished.
5. A commitment to majority rule and a spirit of mutual cooperation are an absolute necessity.

Biological Survey Committee (Rothrock)

Paul Rothrock read a resolution prepared by this Committee entitled "A Resolution Regarding the Control and Use of Exotic Species of Plants and Animals." The full text of this very significant resolution appears as an addendum. A motion was made and seconded to adopt the resolution and to place it on the Agenda of the General Business Meeting. George Parker had some friendly wording changes, and the motion was approved subject to Rothrock and Parker getting together to improve the wording.

Emeritus Member Selection Committee (Hopp)

The following members were presented to the Council as eligible for consideration as Emeritus Members:

James B. Cope	K.W. Nighenhelser
Arthur L. Eiser	John F. Schafer
Mary F. Ericksen	Charles E. Smith
Virgil R. Knapp	Frank J. Zeller

A motion was made and seconded to accept the above as Emeritus Members and to forward their names to the general membership for their approval. The motion was approved.

Fellows Committee (Schmelz)

The following members were presented to the Council as being eligible for nomination to the status of Fellow:

David L. Daniell Stephen A. Perrill
A.J.C.L. Hogarth

A motion was made and seconded to approve the above nominations and to forward their names to the general membership for approval. The motion was accepted.

Library Committee (Oster)

The following is a brief summary of Holly Oster's report.

During fiscal year 1993, sixteen new exchange titles were added. Two exchanges were added, and one was canceled. In the period October 1992 to October 1993, 618 interlibrary loan requests were processed. *The Proceedings of the Indiana Academy of Science* were distributed. Also, copies of *Science Education at the Crossroads* were distributed to exchange libraries.

The Library Committee has agreed with the Publications Committee that exchange copies of the Academy's new series of special publications should only be sent to those exchange partners which are sending us comparable publications. A preliminary list of those institutions has been prepared.

In response to an inquiry from the Russian Academy of Sciences' Library in St. Petersburg (formerly Leningrad), the Committee has agreed to supply a backset of *Proceedings* Volumes 1-30 to replace those lost in a major fire several years ago.

Due to staffing shortages, no additional periodical volumes were prepared for binding.

By January 1994, the Indiana State Library online catalog, which includes portions of the J.S. Wright Memorial Library catalog, will be available on the Internet and in State Agencies via the State's mainframe backbone.

Local Arrangements (Parker)

This evening's dinner will be at Bruno's.

Membership Committee/Membership Secretary (Mueller and Jones)

As of 4 November 1993, there were 1,052 memberships for 1993. Two hundred nineteen (219) persons resigned or did not pay dues in 1993; 94 new members joined the Academy in 1993 (as of this date).

Nominations and Elections Committee (Webster)

President-Elect	Gene Kritsky
Treasurer	Ed Frazier
Academy Foundation	Frank Guthrie
Research Grants	Paul MacMillan

The report was received.

Program and Invitations Committee (Warnes)

The budget for the meetings in South Bend in 1994 will need to be revised due to an anticipated increase in the number of Junior Academy Members attending. Their budget can be finalized at the December Budget Meeting.

The work of the Program and Invitations Committee as well as the Local Arrangements Committee would be facilitated, if a budgetary timetable were prepared by the Budget Committee.

Plans are well underway for the 1994 IAS meetings. A tentative budget has been proposed in consultation with the IUSB planners. Special thanks are extended to Larry Garber for his efforts to help the Academy control costs. The Local Arrangements Committee is chaired by Victor Riemenschneider.

The 1995 meetings will be hosted by IUPUI. Local Arrangements Committee co-chairs are Laura Jensi and Doug Lees of the Biology faculty. Others serving on the Local Arrangements Committee are Gordon Fricke (Chemistry) and Nassor Paydar (Mechanical Engineering). Information has been forwarded to the co-chairs on their responsibilities (including budgetary). If their budget request is to be made prior to the winter (as was done this year), the Committee needs to be quicker in sending out tentative guidelines and corrected timetables.

Selection of a host institution for the 1996 IAS meeting is underway.

Publications Committee (McKnight)

A motion was made and seconded to institute page charges for publication in the *Proceedings* and to not require authors to be members. These changes would not go into effect until after their approval and until after the rates are published in the *Proceedings*. The motion was approved.

A proposal was made that dues for Emeritus Members should be equal to those for Student Members. A motion was made and seconded to refer this matter to the Membership Committee. The motion was approved.

Resolutions Committee (Haddock for Morse)

A resolution was read thanking Purdue University for the use of its facilities and George Parker and his Committee in particular for hosting the Fall 1993 Meeting. A motion was made and seconded to the above and was approved.

Youth Activities Committee (Rhodes)

Twenty-five schools attended the Fall Meeting held at Ball State University in Muncie on 6 November 1992. The 46th Indiana Academy of Science Talent

Search was held on 5-6 March 1993 at Ball State University and was attended by 16 students representing 14 high schools.

The Committee has taken a much needed step toward improving communications with secondary school science teachers this year. That step was the publication and mailing of a four page Indiana Junior Academy of Science newsletter, entitled *Scientific Notations*, to high school science teachers and their students. The newsletter's purpose was to inform them of the Academy's youth programs and to encourage their participation. Plans are to produce two newsletters each year, one in September and another in February.

The Indiana Science Olympiad was held on 3 April 1993 at Indiana University, Bloomington, with 52 schools attending. Eight scholarships totaling \$6,000.00 were awarded. The scholarships are to be used at Indiana colleges and universities.

The Chairperson wrote a policy statement for the Academy's *Operations' Handbook*.

Report of the Academy's Representative to the Indiana Natural Resources Commission (Schmelz)

Damian Schmelz chaired the Brown County State Park Deer Study Committee for the Director of the Department of Natural Resources. The report was completed and forwarded to the Director in February 1993. At its regular September meeting, the NRC unanimously approved the essential features of the report, and a one day "hunt" was scheduled for December 1993 to reduce the deer herd significantly, provided that the Attorney General's Office resolves a counteraction filed by an animal rights group.

Awards

Discussion of an Outstanding Service Award and an IAS Distinguished Scholar Award was tabled.

Report of the High School Teacher Fellowship Committee (Ober)

The Committee received one research proposal for the 1992-1993 year, and it was not awarded because the request was for equipment rather than for salary as specified in the guidelines. The Committee recommends that grant support be used for both salary and/or equipment.

Report of the Natural Areas Committee (Riemenschneider)

The Natural Areas Committee initiated its permanent plot registry program this spring. The Committee sent a cover letter and a form to all ecologists in Indiana, requesting information on permanently marked plots. The Committee has received 20 completed forms as of this date. A draft copy of Committee's goals and responsibilities was sent to the members for discussion at the Fall Meeting.

Report of the Science Education Advisory Committee (Ruesink)

Here is a brief statement of the goals of the Science Education Advisory Committee (SEAC) of the IAS:

1. To become active again and to meet several times during the course of the year.
2. To assess what Committee Members believe to be the biggest challenges facing science educators in Indiana.
3. To determine how the SEAC and the IAS might have positive impacts on science education in the State of Indiana.
4. To promote such impacts.

Report of the Speaker of the Year Selection Committee (Daniell)

Dr. David Beranek, President of the Indiana Environmental Institute, was selected as Speaker of the Year. His presentation at the Fall Meeting of the IAS at Purdue University was entitled "Environmental Priorities in the United States: How Did We Get Here, and Where Are We Going?"

During the selection of a Speaker of the Year, the Committee found that none of the suggested speakers were members of the Academy. This year, the selected speaker was willing to renew his membership. A proposed change in the Bylaws will make the selection process easier. The Committee would appreciate the names of scientists who would be appropriate speakers at future Fall Meetings.

Report of the Science and Society Committee (Bennett)

A suggested long-range plan for the Committee has been developed. The names of speakers are being placed in a computer file. A report on wetlands management appeared in the June *Newsletter* along with a request for volunteers to work on a position paper on the clearing of drainage ditches. The Committee would appreciate the names of scientists who would be appropriate speakers at future Fall Meetings.

Report of the Undergraduate Programs Committee (Perrill)

This Committee is in the process of brainstorming any and all ideas that might facilitate undergraduate research activities throughout the State. The initial thought was to hold some kind of separate activity at the Fall Meeting of the Academy such as a separate session for undergraduate presentations or a luncheon for undergraduate researchers and their faculty mentors. Following conversations with several faculty members from a number of different institutions throughout the State, the Committee decided that the Fall Meetings are already too packed with activities to add yet another separate event.

Events that encourage undergraduate research that are already in place include the Fall Meeting of the Academy and the Butler Undergraduate Research Conference (held in April and also sponsored by the Academy). These two conferences offer excellent opportunities for students to present the results of their research efforts. This Committee will continue to consider other avenues to encourage more undergraduate research activity throughout the State.

Report of the Academy Representative to the AAAS (Kritsky)

The NAAS Workshop represented the first effort by this group to provide some interaction between the State Academies and to help them gain from each other's experiences. One item of interest was the 35% increase in membership in the Ohio Academy of Science that resulted from designating contact people at each college and university in that State, who would act as recruiters. The Ohio Academy of Science also has a calendar tracking program that monitors when dues notices and follow-up notices are sent to help maximize retention and recruitment.

Other special activities by the State Academies included:

1. The New Mexico Academy of Science is involved with the New Mexico Museum of Natural History. Their current activities include building a science museum.
2. Several academies have exhibits at their State Fairs.
3. Ohio has an Industrial Council to encourage corporate contacts.
4. The Indiana Academy of Sciences' publication record for books, the *Newsletter*, and especially the *Proceedings* was clearly the envy of many academies.

Section Y meetings resulted in a major change in decision-making relative to symposia selections. Efforts have been underway for a year to reduce the control of the Washington staff in dictating symposia selection.

Adjournment

The Council Meeting was adjourned at 6:15 pm.

Respectfully submitted,

Jim Haddock
Secretary

ADDENDUM**THE BIOLOGICAL SURVEY COMMITTEE'S RESOLUTION
A RESOLUTION REGARDING THE CONTROL
AND USE OF EXOTIC SPECIES OF PLANTS AND ANIMALS****Whereas**

As a community of scientists, we have long observed an alarming decline in the extent of some native Indiana flora and fauna and in the natural biodiversity of the State;

This decline has been worsened by the introduction of non-native species (herein referred to as exotic species) by accidental or intentional means;

The serious economic, biological, and public health consequences of some exotic species have recently received an extensive review through the Exotic Species Conference and published proceedings sponsored by the Indiana Academy of Science;

Some State Agencies practice management policies which promote the use of exotic species in conservation plantings and recreation even when suitable native species are available;

Adjacent States, most notably Illinois, have developed programs designed to control invasive exotics and promote the use of planting stock raised from native seed sources;

The public requires further information about the effects exotic species have on natural ecosystems and public health and their potential economic impacts.

Therefore

The Indiana Academy of Science and its Biological Survey Committee support the following exotic species policy for the State of Indiana:

1. When appropriate, to reduce and stop the use of exotic species of plants and animals for conservation, landscape, and recreational purposes;
2. To promote the use of native species for conservation, landscape, and recreational purposes;
3. To encourage the education and training of citizens in the biological, health, and economic risks of some exotic species and the benefits of the utilization of native species;
4. To seek policy which excludes the sale, use, or transfer of the most invasive and deleterious exotic species;
5. To encourage management strategies for the control and eradication of current problem species;
6. To seek the creation of Exotic Species Coordinator positions in four existing State Agencies. These individuals will be charged with implementing a successful exotic species control program in the following areas:
 - a. Insects by the Division of Entomology;
 - b. Non-insect animals by the Division of Fish and Wildlife;
 - c. Plants by the Division of Nature Preserves; and
 - d. Fungi and pathogens by the Division of Forestry.

INDIANA ACADEMY OF SCIENCE EXECUTIVE COMMITTEE MINUTES NOVEMBER 4, 1993

Call to Order

The meeting was called to order by President Duvall Jones at 1:20 pm in room 120 of the Stewart Center at Purdue University, West Lafayette.

The following members of the Executive Committee were in attendance: Dolph, Frazier, Haddock, Jones, Kritsky, Lovell, Melhorn, and Mueller. There were approximately six additional Academy members in attendance.

Approval of the Minutes

The Minutes of the previous meeting held on 11 September 1993 were accepted after minor errors were corrected.

Approval of Agenda

Minor modifications were made in the agenda, which was then approved.

Treasurer's Report (Frazier)

The following is a short summary of the Treasurer's Report:

	Beginning Balance 1/1/93	Revenues YTD	Expenses YTD	Balance on Hand 9/30/93
Operating Fund	\$19,867.89	\$24,701.34	\$15,976.64	\$28,592.59
Total Restricted Funds	\$37,116.18	\$48,919.24	\$48,067.95	\$37,967.47
Total Funds	\$56,984.07	\$73,620.58	\$64,044.59	\$66,560.06

Ed Frazier mentioned that we may have a deficit, but he does not think that it will be in the \$12,000.00 range as was previously projected.

Foundation Report (Melhorn for Guthrie)

Frank Guthrie, Chair, is currently on sabbatical on the East Coast, and Bill Melhorn summarized his report by saying that our assets are up (bond prices, for example, increase as yields fall) but that our income is down (due to the lower yields that we receive on new bonds purchased after the old ones have matured).

Old Business

Report of the Nominations and Elections Committee (Webster)

President-Elect	Gene Kritsky
Treasurer	Ed Frazier
Academy Foundation	Frank Guthrie
Research Grants	Paul MacMillan

The Committee extends its appreciation to all of the members that stood for election.

Report of the Search Committee for the Executive Director (Mueller)

The Committee received two applications by the 1 October 1993 deadline. The two candidates were Bill Lovell and Bill Melhorn.

Report of the Personnel Committee (Chesak)

A summary of the recommendations from their meeting of 13 March 1993 was distributed. The report was received. There was moderate discussion, but no action was taken on any of the three proposals. For information purposes, the proposals are listed below:

1. No officeholder or chairperson should receive direct remuneration for services rendered to the Academy. Budgeted funds shall be spent only for goods and services needed to facilitate the work of respective positions.
2. The position of Executive Director should be abolished, and the duties of that office should be redefined and assumed by a Corresponding Secretary.
3. Funds are to be allocated to Section Chairs to facilitate the administration of the their tasks. The amount is not fixed but is to be based on need and the judgment of the Budget Committee.

Selection of the Executive Director (Mueller)

The Executive Committee moved to Executive Session; non-members and the two candidates exited the room. The strengths and goals of each candidate were assessed confidentially, and both candidates were briefly interviewed. Voting then took place, and Bill Lovell was declared the winner.

The entire Executive Committee and guests then reconvened, and the result of the voting was declared — Bill Lovell will begin his appointment as the new Executive Director on 1 January 1994. The Committee also wishes to thank Bill Melhorn for his efforts and accomplishments during his tenure as Executive Director.

Operation's Handbook: Duties of the Executive Director (Melhorn)

Bill Melhorn presented a short summary of his progress in preparing the *Operation's Handbook*. A motion was made and seconded to approve Sect. 6.2.3 dealing with the duties of the Executive Director. Considerable debate occurred relative to the Executive Director's role in handling the responsibility of tracking

membership applications and the collection of dues. An amendment to assign this to a Membership Secretary (still an unofficial, appointed position) died for lack of a second. The original motion was then approved.

A motion was made and seconded to postpone discussion of the following four items:

- Establishment of an Environmental Engineering Section
- Guiding Resolution for Membership Growth
- Guiding Resolution for Corporate Growth
- Resolution for Establishment of a Past President's Fund

The motion was approved.

Publications Committee Report (McKnight)

The Publications Committee has recommended that Gary Dolph be reappointed as Editor of the *Proceedings* and that the annual stipend be increased from \$2,000.00 to \$4,000.00. A motion was made and seconded to appoint Gary Dolph as Editor for another three-year term at an annual stipend of \$4,000.00. The motion was approved.

The Chair of the Public Relations Committee (Gene Kritsky) tendered his resignation effective January 1994 so that he can begin his responsibilities as President-Elect. A motion was made and seconded to accept Gene's resignation, to advertise the opening in the upcoming *Newsletter* and to forward names of candidates for the position from the Executive Committee to the Publications Committee for the latter's review and comment. The motion was approved.

The Youth Activities Committee recently published a Junior Academy newsletter, and the Publications Committee has expressed some friendly concern relative to the format (not content) of this publication. A motion was made and seconded to approve a "one-time look" at the Junior Academy's newsletter by the Publications Committee in concert with the Youth Activities Committee in order to present suggestions for format improvement. The meeting should occur before the Budget Committee Meeting in early December. The motion was approved.

The final item of this Committee was a request that the Academy pay the final publication bill to IU Press for the *Orchids of Indiana*. A motion was made and seconded to grant the Treasurer authority to pay a bill of \$45,822.61 (as opposed to \$42,000.00) which is now due for the *Orchids* and that we acknowledge a change from a 50:50 split on future profits with IU Press to a 60:40 split in favor of the Academy. The motion was approved.

Resolution on Exotic Species (Rothrock)

Paul Rothrock read a resolution by the Biological Survey Committee dealing with exotic species (see pp. 107-108). The document was accepted. A motion was made and seconded to recommend the resolution to the Council for action. The motion was approved.

New Business**Budget Committee Meeting for 1994**

President-Elect Wayne Mueller set the meeting for 9:30 am, Saturday, 4 December 1993, and it is to be held at Speedway High School in Indianapolis. In addition, there may be an Executive Committee meeting after the 1994 Budget is settled.

Adjournment

The meeting was adjourned at approximately 3:30 pm.

Respectfully submitted,

Jim Haddock, Secretary

INDIANA ACADEMY OF SCIENCE EXECUTIVE COMMITTEE MINUTES FEBRUARY 5, 1994

Call to Order

The meeting was called to order by President Wayne Mueller at 10:00 am at Speedway High School, Speedway, Indiana.

The following members of the Executive Committee were in attendance: Dolph, Frazier, Haddock, Jones, Kritsky, Lovell, and Mueller. Other Academy members in attendance were Bill McKnight and Holly Oster.

Approval of the Minutes

The Minutes of the previous meeting held on 4 November 1993 were accepted, after errors were corrected.

Approval of Agenda

Minor modifications were made to the Agenda. which was then approved.

Publications Committee Report (McKnight)

Bill McKnight briefly reviewed the proposed Memorandum of Agreement with Purdue University Press, which basically is a general sales agreement. Net receipts will be split 60:40. A motion was made and seconded to approve the Agreement. The motion was approved.

A motion was made and seconded to approve the Memorandum of Agreement with Purdue University Press for the Charlie Deam book. The motion was approved.

Executive Director's Report (Lovell)**Housekeeping Items**

1. The membership file is in the process of being transferred to the Executive Director's office.
2. A gift of \$1,000.00 was made to the Science Talent Search by PSI (Public Service Indiana) Energy. A motion was made and seconded to make PSI a Corporate Member as a token of our gratitude. The motion was approved.
3. Bill Lovell will be helping President Wayne Mueller with the printing of the *IAS 1994 Yearbook*. About 200 copies will be printed.
4. The Academy needs to conclude a contract with the Executive Director as soon as possible.

Short Term Recommendations

1. Emeritus Members. Some consideration should be given to charging Emeritus Members for the *Proceedings*, if they elect to receive them. Also, Emeritus Members are not known to have the vote in any organization. There should be some thought given to changing the IAS position on this in the future. It would only be fair to have present Emeritus Members "grandfathered."
2. Membership Upgrade. A membership upgrade campaign is needed to increase the financial commitment of members to the Academy. The Academy has been at least indirectly associated with the career advancements of many Academy members, and this should be pointed out through "testimonials" by fellow Academy members either in the *Newsletter* and/or associated with a membership drive.
3. Code of Ethics. The Academy should give serious thought to a written code of ethics that might help us attain and adhere to a higher standard of conduct vis-a-vis our colleagues while engaging in Academy business. President Wayne Mueller will organize a subcommittee to study this issue.
4. Establishment of a Past Presidents Fund. Past Presidents would be solicited for a contribution that could be used for special projects.

Long Term Recommendations

1. Consideration of a name change for the IAS to the "Indiana Academy of Science and Engineering."

Letter to Jones (Mueller)

President Wayne Mueller read a prepared letter written to Duvall Jones in which he expressed numerous concerns about accusations expressed by Duvall in a previous letter addressed to Wayne, sent to the Council, and written on IAS letterhead. The concern expressed by President Mueller was that the accusations

(relative to leadership decisions in the Academy over the past few years) were unsubstantiated in Duvall Jones' letter.

After a short and thoughtful discussion, a motion was made and seconded to ask Duvall Jones to provide names of any Academy members, who were not treated with utmost respect while discussing their ideas in any Executive, Council, or General Business Meeting held at any time in the past. The motion passed.

Treasurer's Report (Frazier)

The following is a short summary of the Treasurer's Report.

The balance on hand as of 31 December 1993 was approximately \$8,000.00 less than for a comparable date in 1992 (\$11,999.73 in contrast to \$19,867.89). About \$7,000.00 of the shortfall was due to the higher costs of the Spring and Fall Meetings held in 1993 at Purdue University.

1. Under "Balance on Hand," \$2,583.17 was removed from the Exotic Species Fund (since that project is finished) and placed under its parent, the Publication Fund.
2. Academy Publication Sales. A total of \$13,451.71 plus another \$2,816.00 from the sale of outside publications was realized for the year. Thanks to Bill McKnight and the Publications Committee for a job well done!

Updated financial report:

	Beginning Balance 1/2/93	Revenues YTD	Expenses YTD	Balance on Hand 12/31/93
Operating Fund	\$19,867.89	\$35,627.91	\$43,496.07	\$11,999.73
Deferred 1994		\$2,500.00		\$2,500.00
Total Restricted Funds	\$37,116.18	\$124,938.50	\$121,931.74	\$40,122.94
Total Funds	\$56,984.07	\$163,066.41	\$165,427.81	\$54,622.67

Editor's Report (Dolph)

Gary Dolph reported that Volume 102(3-4) should be out in about two months. The work is being performed by Haywood Printing Company. Gary will be starting work on the Index for Volume 98 in a couple of weeks.

The Editor reviewed with the Executive Committee the unevenness of Sections relative to the receipt of manuscripts suitable for publication. Anthropology, Entomology, Geology, Cell Physiology, Microbiology, and Physics/Astronomy were identified as Sections that were particularly lean on manuscripts. The Academy Secretary was requested to include an encouraging note to the Chairs of the above Sections in the annual "Letter to Section Chairs" in hopes of resurrecting some interest in publishing in the *Proceedings*.

Old Business

Plans for the 1994 meetings at IU South Bend and the 1995 meetings at IUPUI are progressing well.

The members of the Executive Committee will be reviewing portions of the *Operations' Handbook* a section at a time as President Wayne Mueller sends them in the mail. The goal is to have a considerable portion reviewed collectively and "passed" at the Spring Meeting at IU South Bend.

Membership Report (Jones)

As of 31 December 1993, there were 1193 members in good standing including:

120	Associate Members	2	Institutional Members
34	Club Members	11	Life Members
3	Corporate Members	630	Regular Members
100	Emeritus Members	236	Student Members
3	Honorary Members	54	Sustaining Members

Duvall Jones recommended that a membership form be included in the Program and Abstracts booklet.

Search for a Public Relations Director

A replacement for Gene Kritsky, who is currently serving as President-Elect, is still needed.

Review of the Constitution

President Wayne Mueller has asked the Amendments Committee to review and make recommendations for substantive changes in the Constitution. Bill Melhorn is serving as Chair of the Amendments Committee.

Newsletter

The next issue of the *Newsletter* will be out around 15 March.

Pre-Publication Discount

A motion was made and seconded to give Academy members a pre-publication discount on the forthcoming book, *Plants of the Chicago Region*. The motion was approved.

AAAS

Gene Kritsky will be giving a report on publications at the next AAAS Meeting.

Next Meeting

The next meeting of the Executive Committee will not be held until the Spring Meeting of the Academy on 29 April 1994 at South Bend, unless one is needed to keep up with current business.

Adjournment

A motion was made and seconded to adjourn at approximately 12:10 pm. The motion was approved.

Respectfully submitted,

Jim Haddock, Secretary

INDIANA ACADEMY OF SCIENCE EXECUTIVE COMMITTEE MINUTES APRIL 29, 1994

Call to Order

The meeting was called to order by President Mueller at 1:05 pm in a conference room in the Administration Building on the IU South Bend campus.

The following members of the Executive Committee were in attendance: Dolph, Frazier, Haddock, Jones, Kritsky, Lovell, and Mueller. Additional Academy members present included: Garber, McKnight, and Riemenschneider.

Approval of the Minutes

The Minutes of the previous meeting held on 5 February 1994 were accepted after minor errors were corrected.

Approval of the Agenda

Minor modifications were made to the Agenda, which was then approved.

Treasurer's Report (Frazier)

The following is a short summary of the Treasurer's Report:

Fund Accounts	Beginning Balance 1/2/94	Revenues YTD	Expenses YTD	Balance on Hand 3/31/94
Operating Fund	\$14,499.73	\$8,929.69	\$5,580.20	\$17,849.22
Total Restricted Funds	\$40,122.94	\$39,634.71	\$44,917.86	\$34,839.79
Total Funds	\$54,622.67	\$48,564.40	\$50,498.06	\$52,689.01
Funds on Deposit	Beginning Balance 1/2/94	Deposits	Withdrawals	Balance on Hand 3/31/94
Checking	\$2,522.30	\$60,596.14	\$48,253.97	\$14,864.47
Money Market	\$16,990.82	\$5,779.01	\$15,000.00	\$7,769.83
CD's	\$35,109.55	\$479.48	\$5,534.32	\$30,054.71

Ed Frazier finished his report by noting that the Academy is in good financial shape at this time.

Executive Director's Report (Lovell)

Bill Lovell's very complete report as of 29 April 1994 was subdivided into two sections — "Duties Performed" and "Initiatives Supported." The complete text of his report appears as the first item in the addenda (pp. 120-121).

Editor's Report (Dolph)

Gary Dolph stated that Volume 102(3-4) has been approved for publication. Volume 103(1-2) has 10 and 103(3-4) has 2 approved papers scheduled for publication. The Index for Volume 98 has been completed. Proofs of Volume 98 should be returned to Gary this week, and corrections will need to be made. The issue of page charges has not yet been resolved by the Publications Committee.

Report of the Amendments Committee (Melhorn)

This Committee has been charged with scrutinizing the Constitution and Bylaws for "redundancies, wordiness, and inconsistencies" and to report these as non-substantive changes. The Committee has a number of changes to report. A motion was made and seconded to accept the report on these changes. The motion was approved. The complete report on non-substantive changes is included as the second item in the addenda (pp. 121-124). It should be pointed out that these editorial changes in the Constitution and Bylaws may be made without submitting such changes to a vote of the Council or the membership of the Academy.

The Committee will be meeting over the summer to look at substantive changes which will require approval of the Council and the membership of the Academy at some future date. The Committee actively encourages input and advises that it be very specific and in written form.

Report of the Biological Survey Committee (Rothrock)

Paul Rothrock submitted 2 reports which are included in the addenda: "Establishment of an Indiana Biological Survey and Museum of Natural History" (pp. 124-126) and "Indiana Biological Survey (IBS) Implementation Strategy" (pp. 126-127). The basic concern is that Indiana is losing its natural history resources. The establishment of an Indiana Biological Survey (IBS) might be a way of turning the tide. A motion was made and seconded to accept the reports. The motion was approved. A suggestion was made to dovetail this action with the goals of the Science and Society Committee to form a joint Academy project. This is a policy issue that will have to be brought up before the Council.

Report of the Local Arrangements Committee (Riemenschneider)

Victor Riemenschneider announced that the Fall Meeting will be held in one building. He will be contacting Section Chairs relative to their space and room needs.

Report of the Natural Areas Committee (Riemenschneider)

Victor Riemenschneider read a resolution prepared by this Committee supporting the population control of white-tailed deer in our State Parks. The complete text of the resolution appears as item 4 in the addenda (p. 127). The final paragraph reads, "Be it resolved that the Indiana Academy of Science requests the Governor of the State of Indiana to implement the recommendations of the Brown County State Park Deer Study Committee in State Parks showing significant impact of excessive deer browsing." A motion was made and seconded to accept the resolution. The motion was approved. This resolution will be forwarded to the Council because it is a policy issue.

Report of the Research Grants Committee (Frazier for Hicks)

In the spring round of competition, 35 requests for research funding were received by the Committee, and 29 of them were funded. The total amount expended was \$19,120.00 of the approximately \$41,000.00 that had been requested. There was \$37,000.00 budgeted for the year, which means that approximately 50% of the budgeted funds will be available for the fall competition.

Report of the Nominations and Elections Committee (Boener)

Charlotte Boener reviewed the highlights of her report which appears as item 5 in the addenda (p. 128). A motion was made and seconded to accept the report. The motion was approved. Part or all of the report will be published in an early Spring 1995 *Newsletter*

Report of the Publications Committee (McKnight)

The Academy is still looking for an Editor for the *Newsletter*.

A motion was made and seconded to have the Council take a close look at splitting the position of *Newsletter* Editor from that of Public Relations Director. The motion was approved.

Book sales have increased dramatically since the first of the year! The Academy is now starting to encounter major storage problems. Books are now being stored in the State Library, but Holly Oster needs the space for other publications. The Academy needs an amount of storage space equivalent to that in a one car garage. Bill McKnight will be attempting to resolve this issue before the Fall Meeting.

A motion was made and seconded to increase the publication budget for *Plants of the Chicago Region* from its original \$40,000 to \$48,000 so that the press run could be increased from 2,500 to approximately 5,000 copies. The motion was approved.

A motion was made and seconded to allow Bill McKnight to formulate a Memorandum of Agreement with the Morton Arboretum for publication of *Plants of the Chicago Region*. The motion was approved.

A motion was made and seconded to allow Bill McKnight to form a contract with Bookcrafters of Chelsea, Michigan, for printing *Plants of the Chicago Region*. The motion was approved.

A motion was made and seconded to transfer \$6,000.00 from the *Wetlands and Quiet Waters* project to the *Field Guide to the Freshwater Mussels of the Midwest* project. The former will not appear until 1995 because of publication delays. The motion was approved.

A motion was made and seconded to approve the expenditure of \$16,500.00 for Weimer Graphics to typeset the *Biological Pollution* manuscript. The motion was approved.

A motion was made and seconded to provide an additional stipend of \$1,000.00 to the Editor using the money coming from savings on the Deam text. The motion was approved.

Report of the Programs and Invitations Committee

No report.

AAAS Report (Kritsky)

The last annual meeting of the NAAS was held in February 1994 in San Francisco. A new publication sponsored by NAAS is *BASE*, a science and technology journal. A new format for the State Directories is being formulated, and the delegates approved a new Constitution.

Report of the Auditing Committee (Ricketts)

A motion was made and seconded to accept the Auditing Committee's report (p. 129) which stated that, "the financial records of the Indiana Academy of Science for fiscal year 1993 have been examined by the undersigned [Ricketts and Olsen] and appear to be a fair and accurate record of the financial condition of the Academy." The motion was approved.

Old Business

Past Presidents' Fund

Bill Lovell made a significant contribution to the fund to get it started off on the right foot. Thanks for your generosity Bill! Some thought will have to be given on how to use these funds as they grow and generate interest.

Code of Ethics

Gene Kritsky read a series of statements taken from a Code of Ethics for another organization. No action was taken. However, President Mueller referred the matter to the Council.

Special Service Award

A motion was made and seconded to name Wayne Mueller the first recipient of the Special Service Award. The motion was approved.

New Business

Donation of a Computer and Printer

A motion was made and seconded to contribute one aged MacPlus computer and printer to St. Joseph College. This equipment was used by Duvall Jones while he served as Membership Secretary. The motion was approved.

Announcements

Ben Moulton sends regrets for not being able to meet with us due to his wife's health problems.

Next Meeting

The next meeting will be in early July.

Adjournment

A motion was made to adjourn at approximately 3:00 pm. The motion was approved.

Respectfully submitted,

Jim Haddock, Secretary

ADDENDA

REPORT OF THE EXECUTIVE DIRECTOR 29 APRIL 1994

Duties performed

1. Transferred Membership Directory to a Purdue PC.
2. Mailed two dues billings (January and April).
3. Helped President Wayne Mueller appoint Committees.
4. Arranged for the printing and distribution of the *Yearbook*.
5. Prepared meeting agendas and requested presenters to attend.
6. Prepared material for the *Newsletter*.
7. Made corrections/additions to the Membership Directory.
8. Answered correspondence as needed.
9. Projected a positive attitude and optimism about the future of the Academy in all comments, conversations, and correspondence.

Initiatives Supported

1. Completed the first draft of the *Operations' Handbook*.
2. Supported the complete update of the Constitution and Bylaws.
3. Proposed changing the organization's name to the "Indiana Academy of Science and Engineering."
4. Supported instituting charges for the *Proceedings* for Emeritus Members.
5. Supported the re-examination of the voting privileges of Emeritus Members.
6. Initiated campaign "Membership Upgrade."

7. Initiated a youth movement in new leadership.
8. Supported the establishment of an Academy Code of Ethics.
9. Proposed the establishment of the Past Presidents' Fund.
10. Proposed the establishment of a Distinguished Service Award and an Accomplishment Award.
11. Built a spirit of esteem, loyalty, good will, cooperation, optimism, and collegiality in the Academy.
12. Expanded financial support for Research Grants, Publications, Youth Activities, the Junior Academy, and others.
13. Gave total support to the programs/initiatives of our outstanding incumbent Academy President for 1994.

Respectfully,

Bill Lovell

April 27, 1994

MEMORANDUM FROM THE AMENDMENTS COMMITTEE

From: Amendments Committee
Wilton N. Melhorn, Chair

Date: April 24, 1994

The current (April 1994) *Academy Newsletter* suggests, in an article by President Mueller (as I discussed earlier with him by telephone), that the Amendments Committee is charged with "ferreting out redundancies, wordiness, and inconsistencies" in the existing Constitution and Bylaws. The further understanding is, that once this cleanup is accomplished, that the Amendments Committee has an additional, major charge of very carefully going over this document with the object of devising and recommending any substantive changes which need to be brought before the Executive Committee and the Council for consideration, discussion, and approval.

Existing Bylaw Article XII, Sec. 3, empowers the Executive Committee, upon advice of the Parliamentarian (the Chair of the Amendments Committee), to make technical and non-substantive editorial changes in the Constitution and Bylaws without submitting such changes to a vote of the Council or the Academy membership. Inasmuch as the present governing document, since its adoption in 1985, has undergone amendments, as well as consistent repetition in print without editing, certain flaws exist (or have crept in). As all these fall within the purview of "technical and non-substantive editorial change," the Amendments Committee requests that the Executive Committee accept these changes at this time (see below).

The Chair plans to convene one or more meetings of the Amendments Committee in the next three months to carefully evaluate the existing document; to recommend deletions, if needed; to devise changes in existing sections, with the object of clarifying procedures within the Academy structure; and to prepare new sections, if required. Inasmuch as any changes proposed will require affirmative action by

the Executive Committee, considerable thought, discussion, and care will be required in preparing a document acceptable to the aforesaid governing bodies.

(attachment)

General Comment

The *Oxford Universal Dictionary* devotes two-thirds of a page to discussion of the pronoun “it” and the various misused or archaic derivatives of this word. Especially feckless is the version “its” which the dictionary calls a “factitious genitive.” The following ideas also emerged:

1. “Its” as a possessive. Though used by Shakespeare, the word is archaic because an inanimate object cannot “possess” anything.
2. “Its” as a contraction of “it is.” Apparently this usage is valid, though suggesting impoverished speech; the “its” substitutes for that, which, what, the one that, etc. IF “its” is used, reference is to the immediately preceding noun. In this sense, there are some bizarre constructs in our governing document.

The following changes/substitutions, therefore, are called for.

Constitution

Article 1, Sec. 3, last line: Change to read “...provided in the annual budget or previously approved by the Academy Council.”

Article IV, Sec. 3, line 1: Delete “its.”

Bylaws

Article VI, Sec. 4(2), line 10: Change to “...present the proposed change...”

Article VI, Sec. 4(18), lines 8 and 9: Modify this to read “...that the State charter and continued financial support from the State constitute an obligation...”

Article VII, Sec. 1, line 2: Delete “its” (see subsequent discussion of additional changes in Article VII).

Article VII, Sec. 3, line 8: Delete “it”; insert “Junior Academy Council.”

Article VII, Sec. 3, line 12: Delete “of its”; have the sentence read “...shall designate one member as Director...”

Article IX, Sec. 9, line 1: Delete “its”; have sentence read “...offer services to any organization...”

Article XIII, Sec. 1(5)(a), line 1: Delete “its.”

Article XIII, Sec. 1(5)(e), line 1: Delete “its”; substitute “Academy.”

The following, non-substantive changes are suggested to improve readability, clarify statements, or “repair” items which should have been changed as a result of amendment or existing procedures of the Academy.

Constitution

Article V, Sec. 1, line 1: Put “de facto” in italics.

Article V, Sec. 1(1), line 3, and Sec. 1(3), line 3: Put “ex-officio” in italics.

Article V., Sec 2: Delete all of the second sentence after the word “Chair” and end the sentence at that point.

Article VI, Sec. 2, last line: “...of the meeting date.”

Article VII: Change “Committees” to “committees” in lines 7 and 11.

Bylaws

Article II, Sec. 2, line 3: Change “to be” to “as.”

Article V, Sec. 3, line 9: “...prior to signing by the Treasurer.”

Article VI, Sec. 1, line 3: Change to read “...each committee shall determine appropriate rules and operational procedures.”

Article VI, Sec. 3(2): Put “ex officio” in italics.

Article VI, Sec. 3(7), line 5: Modify to read “...documents updated...”

Article VI, Sec. 4(2), line 5: Capitalize to read “Constitution”; line 8: Capitalize to read “Committee.”

Article VI, Sec. 4(9): Last two lines should read, “The Chair of the Local Arrangements Committee is an *ex officio* member of the Budget Committee.”

Article VI, Sec. 4(12), lines 7 and 8: Should read “...except that incumbents may be presented unopposed, unless there are additional nominations from the membership.”

Article VI, Sec. 4(13): Renumber from “11” to “13”; on line 6, italicize “ex officio”; on line 9, the first word should be “sites”; the last sentence, commencing with line 17, should read, “The Chair of this committee is an *ex officio* member of the Budget Committee.”

Article VI, Sec. 4(14): Heading should read “Publications Committee”; on line 2, insert a colon after “members”; the sentence starting in the middle of line 4 should read, “One of the latter five shall serve...”

Article VI, Sec. 4(18): Reorder the sentence that starts on line 4 to read “...authorized to solicit, in coordination with the Executive Director, financial support from foundations and other sources.”

Article VI, Sec. 4(20): Should read, “This Committee shall select a special lecturer from amongst The Academy membership to deliver a lecture at the Annual Meeting, and to four or five colleges in the State of Indiana during the academic year. The appointment shall be made and the name communicated to the Executive Committee by June 1st of each year. This program will be supported financially by the Academy by means of a special honorarium to the selected speaker.”

Article VII, Sec. 2, line 1: “Each program shall have...”

Article VII, Sec. 3, line 10: Change “policies” to “rules”; the same change should be made in Sec. 4, line 1.

Article X: The last line should be “...in advance of the meeting date.”

Article XIII, Sec 1(2): Change to read “...earnings and other assets...”

Article XIII, Sec. 1(5)(a through e): Delete the “to” at the end of each section; other changes also, so that these sections probably should now read:

- (a) lend any income or assets without receipt of adequate security and a reasonable rate of interest;
- (b) pay any compensation, in excess of a reasonable allowance for salaries or other compensation, for personal services actually rendered;
- (c) make any services available on a preferential basis;
- (d) make any substantial purchase of securities, or other property, for more than adequate consideration in money or money’s worth;
- (e) sell or dispose of any substantial part of Academy securities, or other property, for less than adequate consideration in money or money’s worth;
- (f) engage in any transaction which results in substantial diversion of income or assets to a person who has made substantial contribution to The Academy.

Article XIV. Modify to read, “In the event of dissolution of the Academy, the assets shall be distributed...”

ESTABLISHMENT OF AN INDIANA BIOLOGICAL SURVEY AND MUSEUM OF NATURAL HISTORY

Current Situation

With the establishment of a new administrative order within the Federal Government, a unique opportunity has arisen for funding opportunities for natural history research. The Secretary of the Interior has gone to considerable effort to design a “new” agency which will be responsible for the development of a national survey of biological organisms. The National Biological Survey (NBS) as research agency will evaluate long-term trends in status and water quality for determining the effects of land use change on the environment and ecological aspects. The NBS in cooperation with the Smithsonian Institution will facilitate the collection, identification, and analysis of annual watershed, terrestrial, and multi-media surveys. The Smithsonian in turn will rely on existing natural history collections for completing the regional taxonomic identifications necessary for such an ambitious project.

Problem

The State of Indiana has lost much of its natural history resources. The University systems previously responsible for natural history research have orphaned collections and sold them to neighboring (e.g., Ohio) and often distant museums (e.g., California Academy of Science and New York State). Due to these practices, cascading events have caused the loss of integral positions within the

University systems responsible for educating and researching the native fauna and flora of Indiana. Currently, no State repository exists which is capable of handling, processing, and providing the kind of information available for a resource agency such as the NBS, US Environmental Protection Agency's Environmental Monitoring Assessment Program (EMAP), and the US Geological Survey's National Water Quality Assessment Program (NAWQA). The establishment of a museum and research capability within the State is necessary for addressing needs and providing a living resource of natural history information.

Considerations

1. With the establishment of the NBS during Federal fiscal year 1994, the explosion of EMAP, Regional EMAP, and NAWQA activities in Indiana, and the turn towards watershed management by the USEPA, State of Indiana, and other resource agencies, a definite need exists for natural history information.
2. Funding mechanisms from numerous options will exist totaling millions of dollars for each State from previous sources (e.g., NSF) and new sources (e.g., EMAP, NAWQA, BEST, GAP, and R-EMAP).
3. Likewise, the continuation of lost natural history information and resources from Indiana can no longer be tolerated without further decline of future generation capabilities in systematic and taxonomic research.

Plan of Action

1. The Indiana Academy of Science needs to take the lead in establishing an Indiana Biological Survey (IBS) which can complement the mission of the new NBS and provide the taxonomic and specialized expertise necessary for the new Agency and other Federal and State Agencies responsible for management and protection of the environment. The Academy, which is responsible for promoting the spread of scientific endeavor and promoting research opportunities, would be the best vehicle to get the IBS established.
2. The IBS will capitalize on the current distribution of researchers and experts already in the State, ensuring that these resources remain within the State and will provide an opportunity for future generations of Indiana naturalists.
3. The IBS will be self-supporting, providing additional monetary revenue for the Academy for continued support of this mission. The IBS will obtain monies by several mechanisms:
 - a. Living Resource. Unlike current museum collections which are only documenting species presence and absence, the IBS will monitor the environment by providing current information on the status and trends of various components of the aquatic and terrestrial communities of Indiana. The data being collected would be valuable to resource agencies and the NBS for completing their mission as

well as benefit the researchers of Indiana and the citizens of Indiana by establishing baseline information and biological criteria necessary for monitoring the natural resources of Indiana. The information can be obtained either through being a cooperator (agency annually supporting the IBS) or through a pay-per-need basis (charge for information in the data base).

- b. **Publications.** The generation of supporting literature, monographs, State distribution books, and taxonomic revisions based on Indiana material would be required by member scientists to promote the IBS. These would be available for a nominal charge but would also be self-supporting and possibly generate revenue.
- c. **Grant Opportunities.** By having a collective assemblage of natural history researchers under a single umbrella, the funding opportunities will be greater by indicating to NSF, EMAP, NAWQA, and other programs that Indiana is serious about establishing her position as a leader in natural history research. NSF grants which are currently unavailable to single institutions could now be sought for joint use within the State.

INDIANA BIOLOGICAL SURVEY (IBS) IMPLEMENTATION STRATEGY

Implementation

1. Completion of an up-to-date directory of collections and collectors. This step is already in progress and will be on-going over the next few years.
2. Fall meeting to assess what are the user needs that an IBS must address. Tom Simon, EPA, will be primarily responsible for organizing the meeting. We hope that the participants (users) at this planning meeting will include IDEM, DNR, EPA, F&WS, NOA, USFS, Army Corps of Engineers, DOT, and National Lake Shore.
3. Develop a computer interface strategy that can meet those needs. This effort will largely be steered by Ron Henthall, University of Notre Dame.
4. Preserve/document database through dynamic collections. This effort will largely be steered by John Whitaker, Indiana State University. Note that our strategy is that natural history collections will be preserved in Indiana as they are shown to be a valuable and necessary part of providing information on biodiversity, endangered species, and exotic species to users. Further, we anticipate that users will either contract or subscribe to receive this information in a manner similar to the Nature Conservancy's Heritage Database.

Role of the Academy

1. To act as the umbrella organization and, as feasible, house IBS's data/specimen manager (dependent on IAS setting up a central office).
2. Provide seed money for start-up workshops and equipment; long term support will come from end users, clients, and grants.

What the Biological Survey Committee Seeks from the Council

The Biological Survey Committee (BSC) asks the Council:

1. To approve the ideas that there is a need for an IBS, that the approach offered by the BSC has merit, and that the BSC should continue its planning activity.
2. To support BSC's next step which is to make arrangements for a fall meeting to discuss user needs. This meeting will need space and refreshments at the November IAS meeting.
3. To expect future proposals for workshops to evaluate alternative models for organizing a collections' database and to establish standards for survey work that is to become incorporated into the IBS database.

RESOLUTION OF THE NATURAL AREAS COMMITTEE

Biodiversity is a matter of great concern throughout the world and is of great value to humans of all nations including the inhabitants of Indiana. Our respect for and need to preserve our biodiversity is documented in the Indiana Nature Preserves Act by the Indiana Legislature in 1967 and in many journal articles.

Whereas: The vernal flora of the Eastern Deciduous Forests within the State of Indiana are valued for their beauty and diversity within the Indiana State Parks and Nature Preserves; and

Whereas: The vernal flora is of proven value to the forest ecosystem in the recycling of nutrients; and

Whereas: The forest ecosystems of the State depend on the growth and survival of seedlings and saplings of the woody species for continued vitality of the forest; and

Whereas: All or most of the native large predators have been missing from the forests of Indiana for more than half a century; and

Whereas: Recent scientific studies of the vernal flora and woody seedlings from the forests of two State Parks have shown significant reductions in diversity, cover, and biomass due to browsing by the white-tailed deer, *Odocoileus virginianus*; and

Whereas: The biodiversity and economic importance of Indiana's forest lands are too important to risk depletion of these resources due to over browsing; be it

Resolved: That the Indiana Academy of Science requests the Governor of the State of Indiana to implement the recommendations of the Brown County State Park Deer Study Commission in State Parks showing significant impact of excessive deer browsing.

MEMORANDUM OF THE NOMINATIONS AND ELECTIONS COMMITTEE

Steps in the functioning of the Nominations and Elections Committee:

1. Briefly meet with the Committee to establish procedures.
2. Determine *Newsletter* deadline for the spring.
3. Prepare request for candidates to be included in the *Newsletter* – include the deadline and indicate that 15 individuals should support the nomination.
4. Send to the Committee (if time permits) for suggestions.
5. Send to the *Newsletter* Editor.
6. Send letters to several active members of the Academy requesting suggestions for individuals to consider for nomination.
7. While waiting for petitions, contact the Committee for suggested nominees – also contact chairs of elected committees for the suggestions of their committees.
8. Contact individuals whose terms are expiring to see if they wish to run again. (Incumbents may run unopposed.)
9. If petitions do not have 15 signatures, contact the Committee Members for reactions or contact the nominees requesting additional signatures.
10. Candidates are nominated to the position.
11. Candidates are contacted, if there was no petition.
12. Candidates accept/reject nomination.
13. If the nomination is accepted, nominee must send acceptance letter along with a professional vita.
14. If the nomination is rejected, other candidates must be contacted.
15. Professional vita for each candidate is condensed to fit in the election issue of the *IAS Newsletter*.
16. The ballot is typed.
17. The vitae are edited.
18. Send edited vita to each candidate for corrections and/or minor modifications.
19. Nominations and Elections Committee members also are given an opportunity to proof the information on each candidate.
20. After corrections and/or minor modifications are made by all parties involved, the vitae are ready for printing in the *Newsletter*.
21. Take the ballot to the printer.
22. Make arrangements for return-guaranteed-postage postcards.
23. Send printed ballots to the *Newsletter* Editor.
24. Count return ballots with 2 other IAS members and record the results.
25. Present a report of the election results to the Academy.
26. Send letters of congratulations or regret, if the President does not wish to do so.
27. Give the ballots to the IAS Secretary.
28. Prepare a bill for returned ballots and present it to the Treasurer.

REPORT OF THE AUDITING COMMITTEE

The financial records of the Indiana Academy of Science for fiscal year 1993 have been examined and appear to be a fair and accurate record of the financial condition of the Academy.

Robert J. Olsen
Department of Chemistry
Wabash College
Greencastle, IN 46135

John Ricketts
Department of Chemistry
DePauw University
Crawfordsville, IN 47933

**INDIANA ACADEMY OF SCIENCE
1993 Year End Financial Report**

	Beginning Balance 1/1/93	Revenues	Expenses	Ending Balance 12/31/93
OPERATING FUND				
Dues		\$23,671.00		
Interest		\$2,226.66		
Contributions		\$462.25		
Deferred 1994 Income		\$2,500.00		
Spring Meeting		\$881.00	\$1,395.38	
Annual Meeting		\$8,387.00	\$17,219.77	
Officers Expenses			\$6,032.15	
Operating Expenses			\$5,881.59	
Financial Expenses			\$1,052.85	
Newsletter Expenses			\$3,620.53	
Library Operations			\$1,803.75	
Committee Expenses			\$287.76	
Speaker of the Year			\$700.00	
AAAS Representative			\$750.00	
Biological Survey			\$0.00	
Youth Activities			\$4,752.29	
Operating Fund Total	<u>\$19,867.89</u>	<u>\$38,127.91</u>	<u>\$43,496.07</u>	<u>\$14,499.73</u>
RESTRICTED FUNDS				
Proceedings	\$1,272.62	\$17,783.40	\$18,143.07	\$912.95
Publications	\$13,395.06	\$64,973.04	\$62,180.94	\$16,187.16
Research Grants*	\$2,878.07	\$37,123.79	\$38,061.79	\$1,940.07
IAS Talent Search	\$4,962.27	\$3,596.00	\$3,545.94	\$5,012.33
Lilly Library	\$6,656.12	\$0.00	\$0.00	\$6,656.12
Welch Fund	\$6,368.87	\$462.27	\$0.00	\$6,831.14
Exotic Species	<u>\$1,583.17</u>	<u>\$1,000.00</u>	<u>\$0.00</u>	<u>\$2,583.17</u>
TOTAL FUNDS	<u>\$56,984.07</u>	<u>\$163,066.41</u>	<u>\$165,427.81</u>	<u>\$54,622.67</u>
FUNDS ON DEPOSIT				
		Deposits	Withdrawals	
Checking Account	\$1,378.53	\$159,635.89	\$158,492.12	\$2,522.30
Money Market Savings	\$22,565.41	\$29,425.41	\$35,000.00	\$16,990.82
Cert. of Deposit	<u>\$33,040.13</u>	<u>\$2,069.42</u>	<u>\$0.00</u>	<u>\$35,109.55</u>
Total Funds on Deposit	<u>\$56,984.07</u>	<u>\$191,130.72</u>	<u>\$193,492.12</u>	<u>\$54,622.67</u>
FOUNDATION ACCOUNTS				
		Carrying Value 12/31/92		Carrying Value 12/31/93
John S. Wright Fund		\$742,083.71		\$741,590.36
Invested Income Fund		\$216,104.60		\$207,385.00
IAS Foundation Fund		<u>\$71,015.96</u>		<u>\$73,685.51</u>
TOTAL FUNDS		<u>\$1,029,204.27</u>		<u>\$1,022,633.87</u>

*Includes 36 senior grants and 13 high school grants

Audited 23 April 1994

Edward L. Frazier, Treasurer