
MINUTES OF THE EIGHTY-THIRD ANNUAL MEETING OF THE SOUTH DAKOTA ACADEMY OF SCIENCE

The Eighty-third Annual Meeting of the South Dakota Academy of Science was held April 17, 1998 at Black Hills State University in Spearfish, South Dakota.

The Executive Council met at 7:00 pm Thursday, April 16, for a final check of plans for the annual meeting to follow.

OPENING GENERAL SESSION

President Sharon Clay called the Academy to Opening Session at 9:00 am. Dr. Thomas Flickema, President of Black Hills State University, welcomed the Academy to the campus. In his address at the opening session President-Elect Royce Engstrom emphasized the importance and significance of contributions made by rural Americans in his address titled: *Science and Rural America*.

Papers for the Senior Academy began at 10:00 am and continued through the day. There were fifty-six papers presented. The Junior Academy did not conduct an annual meeting this year. Ninety six members (47 associate and 49 regular) registered for the annual meeting.

ANNUAL BUSINESS MEETING

The Academy was called to its Annual Business Meeting at 12:45 pm by President Sharon Clay. President Clay extended the Academy's sincere gratitude to Audrey and Mark Grabel for making the local arrangements for the Annual Meeting.

Secretary-Treasurer Bill Soeffing asked and reminded the membership to submit email addresses and institutional addresses to him for future mailings. He also reported that the membership dues increase made in 1994 has had a stabilizing affect on cash flow for the academy. He also indicated that some monies were available for investment and that he would be seeking support for investment of those monies later during the meeting. A list of new regular and associate members was presented for the Academy's approval.

Editor Emil Knapp extended his report through the Secretary-Treasurer. He suggested that additional assistance was needed to produce the Proceedings of the South Dakota Academy of Science in a more timely fashion. He also indicated an interest in resigning his position as the editor, but concomitantly expressed a commitment to helping a new editor.

President Clay pronounced Dr. Kenneth Higgins as the first Fellow of the South Dakota Academy of Science. Dr. Higgins was to arrive later to receive the award. Following the announcement, the Application for the Fellows Nomination was reviewed and the procedures for nomination and election reaffirmed.

Dakota State University has invited the Academy to hold its 84th Annual Meeting in Madison, South Dakota on April 16-17, 1999. Drs. Donna Hazelwood and Dale Droge will be co-chairs for the local arrangements. Long-range meeting arrangements were discussed and announcements made for the Tri-State (MN, ND and SD) Meeting in 2000 at Moorhead, MN. The 2001 Annual Meeting will be in conjunction with Space Day at the Discovery Center in Pierre, South Dakota.

The Junior Academy of Science was discussed. The Senior Academy reaffirmed its commitment to the Junior Academy and discussed plans for increasing participation. President Clay suggested that President-Elect Engstrom appoint the First and Second Vice Presidents to work collaboratively to support the Junior Academy. A rotation system would naturally evolve from such arrangements and provide the continuity that might be needed to support such an endeavor. Scholarships to various public and private colleges and universities were announced as motivation for many of the student participants.

MOTION (Tatina/Granholm): The SDAS will invite the regional science fair winners to attend the Junior Academy with travel and lodging being subsidized by the Senior Academy.

Motion Carried.

RESOLUTION COMMITTEE

President Clay announced that US Representatives John Thune and Tom Daschle had responded to the Academy's Resolution pertaining to paleontological artifacts and fossils.

Drs. Gary Larson and Robert Tatina presented the following resolutions on behalf of the committee.

REPORT OF THE RESOLUTIONS COMMITTEE

The membership of the South Dakota Academy of Science thanks Dr. Thomas Flickerma, President of Black Hills State University, for making the campus facilities available and for hosting the 1998 annual meeting of the Academy.

The Academy extends its thanks to the local planning committee - Audrey and Mark Gabel - for making the excellent arrangements for the meeting.

Thanks to President-Elect Royce Engstrom for his address, AScience and Rural America@. His presentation provided valuable insight into South Dakota's status in the scientific community and how funding of scientific research might be improved in the state.

We also wish to thank Dr. Norman Myers of Oxford University for his fascinating address, AMass Extinction of Species: What Can We Do about It?@

President Sharon Clay is commended for the leadership he has provided the Academy this year.

We are appreciative of the time, effort, and perservance of the Academy Secretary-Treasurer, Bill Soeffing, and the Editor of the Proceedings, Emil Knapp.

The Academy congratulates Ronald Campbell, Arlington High School, who was recognized as the Outstanding Physical Science Teacher of the Year. We also extend our congratulations to Donald Decker, Lincoln High School, Sioux Falls, recipient of the Outstanding Biology Teacher of the Year award.

Respectfully submitted,
Nels H. Troelstrup, Jr. and Gary E. Larson

MOTION (Reese/Leifferts): Accept the General Resolutions.
Motion Carried.

DISTANCE EDUCATION

Whereas, distance learning technologies are gaining ever greater popularity as means to deliver courses to remote audiences, and

Whereas, South Dakota institutions of higher education are being encouraged to compete in the preparation and delivery of Internet courses, including science courses, and

Whereas, many science courses entail indispensable hands-on laboratory and field experiences, many of which are impossible to simulate on the computer, and

Whereas, science educators and professionals are the proper authorities who should determine course content and mode of delivery, and

Whereas, no foolproof method has yet been devised to verify learning outcomes by testing over the Internet, and

Whereas, the learning outcomes of Internet courses should be comparable to the learning outcomes of traditional courses,

Therefore, be it resolved the South Dakota Academy of Science affirms the authority of science faculty in determining what should and should not be appropriately delivered via the Internet.

Discussion followed pertains to the type of courses being currently offered by South Dakota's institutions of higher education and the transferability of courses outside of the State.

MOTION (Tatina/Engstrom): Accept the Distance Education Resolutions.
Motion Carried.

South Dakota Academy of Science recognizes the years of experience, wisdom and collective passion of retiring public educators throughout South Dakota. These dedicated educators will be replaced, but in fact they are not replaceable. The academy wishes to recognize the following educators for their contribution toward the education of our young students. We wish them happiness and prosperity in their new endeavors.

Mr. Marv Selnes
Mr. John Landegent
Mr. Ron Campbell
Mr. Vernon Eggert
Mr. Jay Hennies
Mr. Joe Austin
Patrick Henry School, Sioux Falls
Sioux Falls Lincoln High School, Sioux Falls
Arlington High School, Arlington
Howard High School, Howard
Vermillion High School, Vermillion
Madison High School, Madison

Respectfully submitted,
Nels H. Troelstrup, Jr., Gary L. Larson and Bob Tatina, Resolutions Committee

MOTION (Hawk/Reese): Accept the Proclamation of Retiring
Secondary Teachers contingent upon completing the listing to represent the entire State.
Motion Carried.

TEACHER CERTIFICATION

Whereas, it is the responsibility of the South Dakota Academy of Science to preserve the integrity of science (Resolution. 1982. Proc. Acad. Sci. 61:11-12), and

Whereas, science is a systematic method of investigation based on continuous experimentation, observation and measurement leading to explanations of natural phenomena, such explanations being open to further testing and modification (Resolution. 1982. Proc. Acad. Sci. 61: 11-12), and

Whereas, the theory of descent with modification by natural selection fully satisfies these criteria, and is the central theory upon which all of biology is based (Resolution. 1982. Proc. Acad. Sci. 61: 11-12), and

Whereas, Chapter 24:16:08:16, entitled 7-12 Science Education Program, of the proposed Administrative Rules of South Dakota governing teacher certification omits evolution as a topic required in the preparation of secondary school teachers, and

Whereas, these same rules omit the philosophy and methods of science as a required topic in the preparation of secondary school teachers, and

Whereas, the proposed South Dakota Content Standards (South Dakota Science Standards Draft II, March 1988) lack a direct reference to the theory of descent with modification,

Therefore, be it resolved the South Dakota Academy of Science, through its President, urge the South Dakota Board of Education to add evolution and philosophy and methods of science as required teacher education topics to the

Administrative Rules, and evolution (as the theory of descent with modification by natural selection) to Section 24:16:08:16 of the Science Content Standards.

MOTION (Larson/Haertel): Accept the Teacher Certification Resolutions
Motion Carried.

AUDITING COMMITTEE

Charles Estee announced the Auditing Committee found the books and records of the SDAS in good order and financial standing.

MOTION (Estee/Reese): Accept the Auditing Committees action.
Motion Carried.

President Clay announced the Outstanding Biology Teacher of South Dakota was Mr. Don Decker and the Outstanding Physical Science Teacher of South Dakota was Mr. Ronald Campbell. She also announced that Gateway 2000 Inc. has been approached to sponsor a three-year cycle of awards for an Outstanding Computer Science or Mathematics Teacher of South Dakota.

NOMINATING COMMITTEE

The Nominating Committee presented a slate of candidates and elections were held. The officers for the 1998-99 South Dakota Academy of Science are as follows:

President	Royce Engstrom, USD
President-Elect	R. Neil Reese, SDSU
1 st Vice-President	Lenore Koczon, NSU
2 nd Vice-President	Charles Lamb, BHSU
Secretary-Treasurer	William Soeffing, USF
Proceedings Editor	Emil Knapp, Augustana College
1st Past President	Sharon Clay, SDSU
2 nd Past President	John Thomas, USD
Members-at-Large	Audrey Gabel, BHSU
	Donna Hazelwood, DSU
	Gary Larson, SDSU
	Jim Sorenson, Mount Marty College

BIODIVERSITY COMMITTEE

Nels Granhom has sent out a "working document" to the committee members in an attempt to present South Dakota's biodiversity at a comprehensive level.

TREASURER'S REPORT

Statement of Receipts, Disbursements and Changes in Cash Balances for Fiscal Year 1997

Cash Balance on 1 January 1997		
Certificate of Deposit	\$5161.47	
Savings Account	\$9.15	
Checking Account	\$4788.25	
Total Beginning Cash		\$9958.87
Receipts		
Membership Dues		
(Life-34 / Regular-98+2 / Associate-16)	\$2080.00	
Warrant Replacement	\$2330.00	
Gifts to Jr. Academy	\$120.00	
Jr. Academy Annual Meeting Registration	\$19.00	
Reprint Charges	\$365.00	
Page Charges	\$5344.50	
Annual Meeting Registration	\$600.00	
Banquet Tickets	\$215.00	
Interest on Investments	\$279.01	
Total Receipts		\$11352.51
Disbursements		
Corporate Fee (SD Secretary of State)	\$40.00	
NAAS Dues	\$67.00	
Jr. Academy		
Supplies and Materials	\$369.34	
Substitute Teacher Pay	\$122.00	
Research Grants	\$600.00	
SDAS Proceedings Publication	\$4207.00	
Stale Warrants	\$2411.50	
Annual Meeting	\$763.27	
Postage	\$81.32	
Duplication	\$232.11	
Total DisbursementS		\$8893.54
Cash Balance on 31 December 1997		
Certificate of Deposit	\$5500.00	
Savings Account	\$9.15	
Checking Account	\$6908.69	
Total Ending Cash		\$12417.84

NEW BUSINESS

1st Vice President R. Neil Reese discussed a Internet/World Wide Web Site development program for the SDAS. Additional information will distributed to the membership.

MOTION (Soeffling/Larson): Direct the Secretary-Treasurer to invest \$3000.00 into a certificate of deposit as per the discretion of the Executive Council at the time of investment.

Motion Carried

At the close of the meeting, President Sharon Clay expressed her pleasure in passing the gavel to President-Elect Royce Engstrom and wished him the best in the 1998-99 presidency. At 2:00 pm, President Engstrom declared the South Dakota Academy of Science adjourned until the April 16-17, 1999 Annual Meeting at Dakota State University in Madison, South Dakota.

Respectfully submitted,
Bill Soeffling