
MINUTES OF THE SEVENTY-SIXTH ANNUAL MEETING OF THE SOUTH DAKOTA ACADEMY OF SCIENCE

The Seventy-sixth Annual Meeting of the South Dakota Academy of Science was held April 18-20 at the University of South Dakota. The Executive Council met Thursday evening. The opening session convened Friday morning with paper presentations in both Senior and Junior Academies continuing through the day, and the banquet and lecture took place in the evening. There were 108 contributed papers in the Senior Academy, the most ever. The business meeting on Saturday morning was preceded by presentation of the award winning Junior papers.

Actions of the Executive Council from the November and April meetings included: agreeing to accept applications for Academy sponsorship of grant proposals without any prescribed form; affiliating with AAAS in Section Y, with Samuel Gingerich as representative; planning to present framed certificates to student award winners and plaques to their teachers; and requesting that the Membership Committee invite science teachers and students at the state's community colleges to participate in the Academy.

Academy President Samuel Gingerich of Northern State called the annual meeting to order at the opening session. The Academy members were welcomed by University of South Dakota President Betty Asher. Academy President-elect Mark Gabel of Black Hills State delivered the presidential address, "Past, Present, and Future."

The Academy Banquet was held in company with the University of South Dakota Chapter of Sigma Xi. The Outstanding Biology Teacher Award was presented to Don Lotak of Fairfax High School, and Richard J. Thomas of Aberdeen Central received the Outstanding Physical Science Teacher Award.

The invited address, "What Makes Science Hard?" was given by Sheila Tobias of the University of Arizona. The address was co-sponsored by Sigma Xi. President Asher graciously hosted a reception afterward.

At the business meeting, the membership approved an amendment to the By-Laws reflecting a change in the election of the Secretary-Treasurer. Below is the new version of Article II, Section 1, with the changed portion in italics.

The officers of the Academy shall consist of a President; a President-elect who will automatically succeed to the President at the time of the next annual election of officers or as specified in Article II, Section 5; a First Vice-President; a Second Vice-President; a Secretary-Treasurer; and an Editor of the Proceedings of the South Dakota Academy of Science. These officers, with the exception of the President and the Secretary-Treasurer, shall be elected annually by a majority vote of those members voting at the annual meeting or as specified in Article II, Section 5. *The Secretary-Treasurer shall serve for a term of three years. At the annual meeting prior to the third year of the term of the Secretary-Treasurer, a Secretary-Treasurer-elect shall be elected by a majority vote of those members voting at the annual meeting or as specified by Article II, Section 5. The Secretary-Treasurer-elect will automatically succeed to the Secretary-Treasurer at the time of the next annual election of officers or as specified by Article II, Section 5.* All officers shall perform the duties usually pertaining to their offices.

Academy President Gingerich reported on several continuing projects initiated in the past few years. Primarily, these efforts reflect the Academy's interest in math/science education within South Dakota. Much of the work had been initiated by Past-President James Martin.

Gingerich asked William Jensen to provide an overview of South Dakota's Statewide Systemic Initiative in Science, Mathematics, and Engineering Education, a proposal submitted to the National Science Foundation to enhance education in these areas within the state. Following Jensen's comments, Gingerich reported that the Academy had been asked by the steering committee for this project to draft science standards for K-12 programs. Following discussion, the Academy agreed to undertake this task.

Erika Tallman of Northern State described the Natural Source project, an effort to improve the quality and effectiveness of environmental education in South Dakota. Tallman requested that members of the Academy participate in the project.

Gingerich reported that he had met with the South Dakota State Board of Regents to promote the Academy as a resource for the state. He encouraged all members to stress to those they know that the Academy is a network of professionals willing to serve the state as needed. He also mentioned that the Title II proposal prepared and submitted to support travel by teachers and students to the Junior Academy meeting was not funded but efforts in this area will continue.

Thanks was extended to faculty members at the host institution who had participated in planning and organizing the meeting with special recognition to Charles Estee, Mary Abraham, and James Schmulbach for their efforts, to those who had chaired sessions, to those serving on committees, to Mark Gabel and Sheila Tobias for their presentations, and to Carroll Hanten for her efforts as editor of the Proceedings. Finally, Gingerich recognized Emil Knapp for his continuing work publishing the Proceedings and his years of service to the Academy as Secretary-Treasurer.

The Nominating Committee, composed of Lynn Hodgson, Don Abraham, Audrey Gabel, Harry Hecht, and Jan Palmer, presented nominees for officers of the Academy and conducted the election.

1991-92 Officers

Executive Council

President Mark Gabel, Black Hills State
 President Elect Lynn Hodgson, Northern State
 First Vice President Nels Granholm, SD State University
 Second Vice President Keith Perkins, Sioux Falls College
 Secretary-Treasurer Frederick Peabody, University of SD
 Proceedings Editor Carroll Hanten, Pierre
 First Past President Samuel Gingerich, Northern State
 Second Past President James E. Martin, SD School of Mines
 Member at large, second year Arvid Boe, SD State University
 Member at large, second year Mark Farrand, Rapid City
 Member at large, first year Christina Keller, University of SD
 Member at large, first year Tim Mullican, Dakota Wesleyan

Junior Academy Committee

Marvin Selnes, Sioux Falls John Landegent, Sioux Falls
 Ron Fahy, Rapid City Kris Thoreson, Sioux Falls
 Delbert Goodwin, Belle Fourche

Membership Committee

Robert Tatina, Dakota Wesleyan James E. Martin, SD School of Mines
 Cliff Lewis, Sioux Falls College Nels Granholm, SD State University
 William Houk, Dakota Wesleyan

1990-91 committee reports were heard and approved as printed below. Theodore Schultz of the University of Chicago, a Nobel laureate in economics, was elected an honorary member of the Academy. Schultz earned his bachelor's degree, in agricultural economics, at South Dakota State University.

At the close of the meeting Gingerich passed the gavel to President-elect Mark Gabel.

REPORT OF THE RESOLUTIONS COMMITTEE

The membership of the South Dakota Academy of Science thanks Dr. Betty Asher, President of the University of South Dakota, for making available the facilities of the University and hosting the annual meeting of the Academy as well as so graciously hosting the President's reception.

The Academy extends its thanks to the local planning committee, in particular to chairman Charles Estee, for making such excellent arrangements for the meeting.

Thanks to Mark Gabel for the Presidential Address, "Past, Present, and Future," which so appropriately encouraged us to undertake our missions and our responsibilities toward our environment.

Thanks to Dr. Sheila Tobias, author and lecturer, for her interesting and thought-provoking lecture, "What Makes Science Hard?"

The Academy extends its appreciation to the dedicated high school science teachers for the leadership they provide the members of the Junior Academy.

Thanks to Carroll Hanten for her exceptional efforts in insuring the quality of the Academy Proceedings and to Emil Knapp for the years of service he has contributed to the Academy as secretary-treasurer and for providing continuity for the Executive Council.

Thank you to President Sam Gingerich for the leadership he provided the past year and the commendable way he represented the Academy.

The Academy extends its congratulations to Don Lotak of Bonesteel-Fairfax High School for receiving the Outstanding Biology Teacher Award and Richard J. Thomas of Aberdeen Central High School for receiving the Outstanding Physical Science Teacher Award.

Congratulations to the Junior Academy of Science Award winners, Chad Larson and Dan Fisher, and to their teacher, Jerry Loomer, of Rapid City Stevens High School.

Respectfully submitted,
Mike Foss
Roy Kintner
Susan Landon-Arnold

JUNIOR ACADEMY REPORT

A total of thirty-eight papers that represented seven schools were presented at the 1991 meeting of the Junior Academy. Forty students attended the activities and joined the Junior Academy.

The 1990-91 officers were President Shannon Crowley of Belle Fourche, Vice President Jim Gilbert of Sioux Falls Lincoln, and Secretary Jody Hillberry of Rapid City Stevens. The Vice President conducted two meetings which dealt with nomination and election of officers. Elected for 1991-92 were President Heather Hoeye of Rapid City St. Martin's, Vice President Rebecca McFarland of Belle Fourche, and Secretary Kerry Wendt of Belle Fourche.

Seniors presenting research papers competed for scholarships offered by seven South Dakota colleges and universities. The first place scholarship was awarded to Chad Larson of Rapid City Stevens, and the second place scholarship was awarded to Dan Fischer of Rapid City Stevens. Alternates were Holly Hanson of Rapid City Stevens and Mike Ray of Rapid City Stevens. Chad Larson and Dan Fischer presented their research to the Senior Academy on Saturday morning, and their abstracts will be published in the Proceedings.

Division winners were: Holly Hanson of Rapid City Stevens, Giovanna Molteni of Belle Fourche, Scott Rothermel of Rapid City Stevens, and Mike Ray of Rapid City Stevens, 12th grade; Cari Skogberg of Belle Fourche, Beth Goodwin of Belle Fourche, Kerry Wendt of Belle Fourche, and Travis Konda of Sisseton, 10th and 11th grades; and Chandy Davis of Belle Fourche Roosevelt, Darin Konda of Sisseton, Olivia Norlin of Belle Fourche Roosevelt, Patrick LeClair of Sisseton, and Chad Lamb of Belle Fourche Roosevelt, 7th through 9th grades.

Students chosen to present their papers at the Regional Junior Science and Humanities Symposium in Minnesota in November of 1991 were Cari Skogberg, Beth Goodwin, and Jim Gilbert, with Kerry Wendt and Travis Konda as alternates. These students were awarded research grants from the American Association for the Advancement of Science.

The Junior Academy thanks the University of South Dakota, host of the meeting; the colleges and universities which offered scholarships for the 12th grade competition; the science teachers whose efforts and support brought students to the meeting, and the papers judges: Marvin Selnes, John Landegent, Elizabeth Matthews, Deb Schultz, Jane Roseland, Munir Bhatti, Dan Fritza, Mike Brunsing, Alan Williams, and Arie Gaalswyk.

Respectfully submitted,
Mike Barondeau, chairman
Ron Fahy, awards
Kris Thorson, judges
Mike Benson
Jan Palmer
Sandra Dyson
Robert Waddell

REPORT OF THE MEMBERSHIP COMMITTEE

The Membership Committee recommends that the Academy accept the following people as members.

Honorary member

Theodore W. Schultz, University of Chicago

Life member

Harold Foss, Augustana College

Regular members

Dennis G. Aldinger, National College

Doug Backlund, Black Hills State

James Batt, University of SD

Mike Boucher, SD School of Mines

Kevin J. Buhl, US Fish & Wildlife

Jack Butler, University of SD

John W. Carlson, University of SD

Cyndi Chen, University of SD

George Duchossois, University of SD

A. S. Elkhader, Northern State

Sayed M. J. Feghahati, SD State University

Steven Hamilton, US Fish & Wildlife

Dona Henderson, University of SD

Jeffrey L. Henriksen, University of SD

D. W. Hildebrand, Black Hills State

Thomas Holme, University of SD

David J. Hurley, SD State University

Martin J. Jarrett, SD Geological Survey

Shirley Jennewein, Mount Marty

Lenore M. Koczon, Northern State

Alireza E. Koosej, SD State University

James R. Miller Jr., SD School of Mines

Daniel Arthur Neufeld, University of SD

Jennifer E. Peterson, SD State University

Yu Rong, SD State University

Jane Roseland, Rapid City

Hong-Kyun Shin, SD State University

Timothy Sorenson, Augustana College

David L. Swanson, University of SD

Don Ticknor, University of SD

Alan B. Ward, Viborg

Wade Winters, Urbandale IA

Associate members

Fifty-seven students -- see membership list for names.

Respectfully submitted,
Robert Tatina, Cliff Lewis, Nels Granholm,
Duane Weisshaar, Don Hopkins

REPORT OF THE AUDITING COMMITTEE

The Auditing Committee has examined the financial records of the Academy for 1990. The committee finds them accurate and well kept.

Respectfully submitted,
William Jensen
Clyde Brashier
Robert Stoner

TREASURER'S REPORT

Cash Balances, January 1, 1990		
Certificate of Deposit	\$ 3947.98	
Checking Account	3164.95	
Total Beginning Cash		\$ 7112.93
Receipts		
Dues	\$ 1290.00	
Meeting registration	666.00	
Banquet Tickets	908.50	
Lunch Tickets	235.00	
Proceedings Sales	143.33	
Page Charges	1637.50	
AAAS Research Grant	1200.00	
Junior Academy	50.00	
Interest on Investments	321.25	
Total Receipts		\$ 6451.58
Cash Available for Disbursements		\$ 13564.51
Disbursements		
Proceedings	\$ 2392.50	
Food Service	1418.50	
Supplies	53.30	
Postage	297.02	
Printing	359.41	
Awards	1390.00	
Junior Academy	245.80	
National Dues	17.70	
Heritage Center	151.79	
Promotion	319.55	
Past-Presidents	248.14	
Total Disbursements		\$ 6893.71
Cash Balances, December 31, 1990		
Certificate of Deposit	\$ 4269.23	
Checking Account	2401.57	
Total Ending Cash		\$ 6670.80

Emil F. Knapp, Treasurer

MEMORIAL STATEMENTS**Charles Sidlo**

A teacher remembered for the inspiration he gave to so many of his students, Charles Sidlo died on May 19, 1990. He was 75. Charles graduated from Augustana College in 1936, and later received the master's degree from the University of South Dakota. Esther Jensen and Charles were married in 1943. They were blessed with four wonderful daughters: Cheryl, Barbara, Rebecca, and Laurel. Eleven years in retirement were joyous ones for Charles and Esther, doing much together, with Charles so gifted in doing things for the house with his hands.

His 39 years of teaching were at Hurley, Sioux Falls (Washington), and Parker. Four years of military service during WWII included duty in New Guinea. Charles was an officer with rank of major in the Army Chemical Corps.

Many of us in the South Dakota Academy of Science became acquainted with Charles while observing him actively involved in giving love and support to some of his dear students while they were under pressure to present a paper on some original science study or experiment. It was there that we saw Charles in his full glory, doing what he did best. Charles was president of the Academy in 1968-69 and was later elected a life member.

Students appreciated so much the human nature in which Charles regarded each in his teaching. His philosophy was to listen to his students, and let them learn by doing and questioning. One former student from the 60's, now with PhD and MD degrees, wrote Esther after hearing of the death. He expressed such deep appreciation for the attention and learning Mr. Sidlo afforded him as one coming from "the other side of the track." A sister-in-law wrote a "Memory of Charles." Two quotes from it are (1) "As a teacher you were a challenger of youthful minds," and (2) "Thank you, Charles, for the legacy of love, laughter, and life that you have left us."

Arie Gaalswyk

Magnhild Minerva Torvik Greb

Magnhild Greb was born on December 10, 1903, on a farm near Sisseton, South Dakota. Her early education through high school was in Sisseton. She attended the University of South Dakota in Vermillion, graduating valedictorian of her class with a Bachelor of Science degree in 1924. She received her Master of Science from the University of Chicago in 1926 and her Ph. D. in genetics from the University of Pittsburgh in 1928.

In 1936 she moved to Huron, South Dakota, and while at Huron College she started teaching chemistry. In 1946 she moved to Brookings and taught at South Dakota State University until her retirement in 1968. She returned for several summers and taught as a professor emeritus until 1973.

While at SDSU she was twice selected as Teacher of the Year. Always the educator, she wanted her students to have a good basic knowledge of science from which to build for their futures. She loved to teach, which will be remembered by the numerous students who learned chemistry (even those afraid of it) through her patience and guidance.

Magnild was a member of Phi Kappa Phi, American Association of University Women, Faculty Wives, South Dakota Academy of Science, American Genetics Society, and the International Genetics Society.

Magnhild Greb died in Brookings on January 24, 1991. She was preceded in death by her husband, Raymond J. Greb. A scholarship has been established through the SDSU Foundation in memory of the Grebs.

SOUTH DAKOTA ACADEMY OF SCIENCE MEMBERSHIP

Letters after names indicate field of science: A, mathematics; B, physics; C, chemistry; E, geology; G, biological sciences; J, psychology; K, economics; M, engineering; O, agriculture; T, computer science; W, atmospheric science; Y, general science.

Life Members

Marjorie Beatty (A)
Henry V. Cobb (J)
Mark W. Delzell (G)
Louis Jack Dorland (G)
William Ekeman (A)
S. Gordon Froiland (G)
Harold Foss (G)
Harold B. Goodell (G)
Morton Green (E)
Edna Grieb (A)
John Paul Gries (E)
Al L. Halstead (C)
Marion Hilpert (G)
William F. Houk (G)
Ernest J. Huggins (G)
Elmer R. Johnson (C)
Harlan L. Klug (G)
William Kohlmeyer (O)
Richard John Landborg (C)
Willard John Martin (C)
Ralph H. McGregor (A)
John C. Mickelson (E)
Gottfried I. Moller (B)
Walter Morgan (G)
Oscar E. Olson (C)
Fay L. Partlo (B)
Robert M. Pengra (G)
Roy W. Risky (C)
George Semeniuk (G)
Charles A. Taylor (G)
Theodore Van Bruggen (G)
Charles M. Vaughn (G)
Victor S. Webster (C)
John W. Willard (E)

Augustana College

Maureen Diggins (G)
Arie Gaalswyk (A)
Milton P. Hanson (C)
Leland G. Johnson (G)
Robert Roy Kintner (C)
Emil F. Knapp (A)
Verlyn Lindell (A)
V. Ronald Nelson (B)
Lansing M. Prescott (G)
Timothy Sorenson (A)

J. D. Thompson (B)
Larry L. Tieszen (G)
Karel Vander Lugt (B)
Arlen Viste (C)
Duane E. Weisshaar (C)
Chet Whitney (B)

Black Hills State University

Doug Backlund (G)
Thomas P. Cox (J)
Max Durgin (A)
Audrey Gabel (G)
Mark Gabel (G)
D. W. Hildebrand (G)
Jacob Haffner (G)
Jack B. Lozier (G)
Dewey A. Shrout (G)
Gerald Shryock (C)

Dakota State University

Clyde K. Brashier (G)
Robert Buckman (G)
Lee Carlson (A)
David E. Cook (C)
Michael D. Foss (B)
Michael F. Hanna (A)
James A. Janke (C)
Paul W. Rasmussen (C)
Rick Simmons (A)
Jerald A. Tunheim (B)

Dakota Wesleyan University

Carroll Loran Hills (C)
James L. Lefferts (C)
Tim R. Mullican (G)
Robert Tatina (G)

Mount Marty College

Shahrokh Ghaffari (C)
Shirley Jennewein (G)
Sr. Laetitia Kilzer (C)
James Rasmussen (G)

National College

Dennis G. Aldinger (E)
Leonard Huneke (A)

Northern State University

Duane A. Dolesji (B)
A. S. Elkhader (G)
Samuel B. Gingerich (C)
Lynn M. Hodgson (G)
Lenore M. Koczon (G)
Susan Landon-Arnold (G)
Raj K. Markanda (A)
John C. Naughten (G)
Dwayne W. Rehfeld (C)
Dan Tallman (G)
Erika Tallman (G)
Lu Zhang (A)

Sioux Falls College

W. F. Klawiter, Jr. (B)
L. Cliff Lewis (C)
Keith Perkins III (G)

**South Dakota School
of Mines and Technology**

Lynn Alex (E)
Mike Boucher (T)
Mark D. Fahrenbach (E)
Paul Fugazzotto (C)
Arthur T. DeGactano (W)
Don C. Hopkins (B)
J. Haworth Jonte (C)
Robert Looyenga (C)
James E. Martin (E)
James Reid MacDonald (E)
James R. Miller Jr. (W)
Perry H. Rahn (E)
Robert D. Redin (B)
William M. Roggenthen (E)
John Foster Sawyer (E)
Joel R. Socwell (E)
Jack Weyland (B)
Janet Whitmore (E)
John S. Zogorski (M)

South Dakota State University

Sherwood O. Berg (G)
Arvid Boe (G)
Christopher W. Brey (G)
Chen H. Chen (G)
Nancy Cook (G)
George H. Duffey (B)
Seyed M. J. Feghahati (G)
Jeffrey L. Gellner (G)
Hary A. Geise (O)
William R. Gibbons (G)

Nels H. Granholm (G)
Louise Guild (G)
Lois Haertel (G)
Harry G. Hecht (C)
Warren Hein (B)
Michael Hildreth (G)
Kevin Hop (G)
David J. Hurley (G)
H. L. Hutcheson (G)
William P. Jensen (C)
Michael D. Johnson (G)
Omar Kafawin (G)
Leslie Kamstra (G)
Kevin J. King (G)
Alireza E. Koosej (G)
Charles McMullen (G)
Gerald A. Myers (G)
Gary B. Peterson (G)
Jennifer E. Peterson (G)
Nathan Pulscher (G)
Oren Quist (B)
Joel Rauber (B)
R. N. Reese (G)
Diane Rickerl (G)
Yu Rong (G)
Charles Scalet (G)
Stephen J. Schiller (B)
Hong-Kyun Shin (G)
James D. Smolik (G)
Leo Spinar (C)
Edward Twidwell (G)
Everett M. White (G)
David W. Willis (G)
Charlene Wolf (G)
Ken Yocom (A)

University of South Dakota

Donald R. Abraham (B)
Mary Abraham (C)
Ron L. Batstone-Cunningham (C)
James Batt (G)
Frank O. Brady (C)
Jack Butler (G)
John W. Carlson (A)
Cyndi Chen (A)
Howard Coker (C)
Cleland Cook (A)
Raymond D. Dillon (G)
George Duchossois (A)
Frank A. Einhellig (G)
Royce C. Engstrom (C)
Charles R. Estee (C)
Jose D. Flores (A)

James F. Heisinger (G)
 Dona Henderson (A)
 Jeffrey L. Henriksen (G)
 Thomas Holme (C)
 K. Wayne James (B)
 Allen D. Johnson (G)
 Gary D. Johnson (E)
 Andrew E. Karantinos (A)
 Christina Keller (B)
 Miles Koppang (C)
 Yuhlong Lio (A)
 Alexander Mehaffey Jr. (A)
 Norman Miller (C)
 M. A. Mortazavi (A)
 Daniel Arthur Neufeld (G)
 Otto W. Neuhaus (C)
 Paul B. Otto (Y)
 Frederick J. Peabody (G)
 Robert J. Peanasky (C)
 Christine Pharr (C)
 James C. Schmulbach (G)
 Gary D. Small (C)
 Harold L. Smith (G)
 M. Robert Stoner (C)
 David L. Swanson (G)
 John Thomas (C)
 Don Ticknor (T)
 Merlin J. Tipton (E)
 Kari Webb (C)

High Schools and Middle Schools

Paula R. Andenas (C)
 Edgemont
 Mike Barondeau (C)
 Roscoe
 Bruce Bessert (C)
 Rapid City
 Ron Fahy (G)
 Belle Fourche
 Mark Farrand (Y)
 Rapid City
 Roberta Gaines (C)
 Rapid City
 Delbert Goodwin (Y)
 Belle Fourche
 Marvin Hanson (B)
 Wolsey
 Clinton Kiewell (Y)
 Buffalo
 John Landegent (G)
 Sioux Falls

Jerry Loomer (B)
 Rapid City
 Frances Olson (Y)
 Newell
 Jan Palmer (Y)
 Warner
 Sherri Price (Y)
 Belle Fourche
 Vijaya Ramakrishnan (C)
 Rapid City
 Jane Roseland (C)
 Rapid City
 Marvin D. Selnes (C)
 Sioux Falls
 Richard J. Thomas (Y)
 Aberdeen
 Robert Waddell (C)
 Belle Fourche
 Alan B. Ward (Y)
 Viborg
 Mary Warren (Y)
 Belle Fourche

Out-of-State Schools

Dennis T. Disrud (G)
 Minot State University, North Dakota
 Lowell M. Duffey (G)
 Jacksonville State University, Florida
 Robert D. Hempel (G)
 Western Iowa Tech
 Joseph A. Kawatski (G)
 Viterbo College, Wisconsin
 Glenn E. Kietzmann, Jr. (G)
 Wayne State University, Nebraska
 Allen J. Kihm (E)
 Minot State University, North Dakota
 Robert A. Kreber (G)
 University of Wisconsin
 Peter Maldonado (C)
 Findlay College, Ohio
 Daryl Mergen (B)
 Fort Hays State University, Kansas
 James D. Patterson (B)
 Florida Institute of Technology
 Theodore W. Schultz (K)
 University of Chicago
 Arthur W. Struempfer (C)
 Chadron State College, Nebraska
 Wade Winters (G)
 Urbandale High School, Iowa
 Ronald Zawislak (E)
 Middle Tennessee State University

Non-Academic

Kevin J. Buhl (G)
 U. S. Fish and Wildlife, Yankton
 Charles C. Coffman (G)
 W. V. Dept. of Agriculture
 James A. Donohue (E)
 S. D. Arch. Research Center, Rapid City
 Louis Hamilton (E)
 U. S. Geological Survey, Huron
 Steven J. Hamilton (G)
 U. S. Fish and Wildlife, Yankton
 Carroll J. Hanten (G)
 S. D. Dept. of Agriculture, Pierre
 Robert L. Hanten (G)
 S. D. Game, Fish & Parks, Pierre
 Joe Ideker (G)
 McDonnell Nat. Hist. Center, Tex.
 Martin J. Jarrett (E)
 S. D. Geological Survey, Vermillion
 Jeffrey D. Jung (C)
 T & R Service, Colman
 Eugene L. Miller (G)
 Natl Grain Insect Res Lab, Brookings
 James J. Norton (E)
 U. S. Geological Survey, Rapid City
 David J. Ode (G)
 S. D. Natural Heritage Program, Pierre
 Eileen H. Peifer (G)
 Discovery Center, Pierre
 Walter E. Riedell (G)
 Natl Grain Insect Res Lab, Brookings
 John Foster Sawyer (E)
 S. D. Geological Survey, Rapid City
 Merlin J. Tipton (E)
 S. D. Geological Survey, Vermillion

Associate Members

Craig Aalseth, SDSM&T
 David Armstrong, USD
 Seetha Ananth, SDSU
 Bruce D. Bailey, USD
 Jade Beeler, USD
 Matt Bien, Augustana
 Dennis Blunt, SDSU
 Betsy Burtzloff, Black Hills State
 Annaliese Chapp, Mount Marty
 Joe Collette, USD
 Sheldon J. Cooper, USD
 Rick Cox, USD
 Douglas Custis, Black Hills State
 Charlene Dick, USD
 Scott Dougherty, USD

Jacqueline Ekstrum, Augustana
 Daniel Engebretson, Augustana
 Cathy Faulstich, USD
 Derek Ferrie, USD
 Derek Groft, USD
 Christopher S. Guy, SDSU
 Kevin Jon Gyolai, SDSU
 Julia S. Heaton, USD
 Dane Heckel, SDSU
 Angela M. Hejl, USD
 Terri Hildebrand, Black Hills State
 Paul H. Hoffer, SDSU
 Catherine Hogan, Augustana
 Steven Johnson, Augustana
 Cassandra K. Joseph, USD
 Kenneth Kambour, SDSM&T
 Lisa Kattan, USD
 Clarke Knigge, SDSM&T
 Scott Lichty, Augustana
 Martese McGregor, USD
 Pat Merrick, Augustana
 Scott Page, SDSU
 Eric D. Pentico, Augustana
 Jeanne Pfaff, Augustana
 Nancy Pierret, Mount Marty
 Lisa Pilker, USD
 Richard F. Raposa, USD
 Jennifer Sabers, USD
 Jill Schmaderer, Mount Marty
 Dottie Schroder, USD
 Chara Schryvers, Mount Marty
 Holly Sehr, Augustana
 Rhonda Sherman, USD
 Sandra K. Shumaker, USD
 Dana Sindelar, USD
 Robert V. Stack, USD
 Barbara Timm, USD
 Nursinah Amal Urai, USD
 Dan Van Peurseum, USD
 Tim S. Voigt, USD
 Quentin Wearne, USD
 Cindy A. White, SDSU

Junior Academy

Rudy Cazer, Belle Fourche Roosevelt
Chandy Davis, Belle Fourche Roosevelt
Tausha Erk, Belle Fourche Roosevelt
Dan Fischer, Rapid City Stevens
Jim Gilbert, Sioux Falls Lincoln
Becka Goodwin, Belle Fourche Roosevelt
Beth Goodwin, Belle Fourche
Holly Hanson, Rapid City Stevens
David Heck, Belle Fourche
Heather Hoeye, Rapid City St. Martin's
Donald Janvrin, Harding County
Hilary Kindsfater, Belle Fourche Roosevelt
Carrie Koch, Rapid City St. Martin's
Darin Konda, Sisseton
Travis Konda, Sisseton
Chad Lamb, Belle Fourche Roosevelt
Daniel Larsen, Viborg
Joshua Larsen, Sisseton
Chad Larson, Rapid City Stevens
Patrick LeClair, Sisseton
Jodi McCollar, Sioux Falls Lincoln
Rebecca McFarland, Belle Fourche
Jennifer McKay, Belle Fourche
Kimberlee McKay, Belle Fourche
Giovanna Molteni, Belle Fourche
Gary Myers, Rapid City St. Martin's
Marcy Myers, Belle Fourche Roosevelt
Michiel Najemeiseland, Sioux Falls Lincoln
Karyn Nielson, Rapid City St. Martin's
Olivia Norlin, Belle Fourche Roosevelt
Danny Paradis, Belle Fourche Roosevelt
Amanda Preszler, Rapid City Central
Mike Ray, Rapid City Stevens
Scott Rothermel, Rapid City Stevens
Doug Ruzicka, Belle Fourche Roosevelt
Barry Schwartze, Rapid City Central
Cari Skogberg, Belle Fourche
John Staub, Sisseton
Melanie Stevens, Belle Fourche
Wendy Stevens, Belle Fourche Roosevelt
Kelli Trudo, Belle Fourche Roosevelt
Kerry Wendt, Belle Fourche
Jennifer Ziegler, Belle Fourche