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2005

## TRANSACTIONS OF THE NEBRASKA ACADEMY OF SCIENCES: Volume 30, 2005 Table of Contents

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## NEBRASKA ACADEMY OF SCIENCES, INC.

The membership of the Academy consists of those individuals and institutions interested in science and those persons actively working and contributing to science in the State of Nebraska. It includes nonprofessional persons, as well as representatives from education, the professions, industry, and governmental agencies.

The Academy was organized in 1880 in Omaha with seventy-five charter members, and reorganized in 1891 in Lincoln. The Academy was incorporated in 1950 as a nonprofit educational institution, and it is neither a state agency nor is it sponsored by any particular university, college, or other Nebraska educational organization. In 1963, the Internal Revenue Service established the Academy's rating as "Section 501(c) (3)" of the Internal Revenue Code. The Policy Committee of the Academy is made up of one representative from each of the colleges and universities of the State.

**OBJECTIVES:** The objectives of the organization are to further the work of scientists and science teachers in the high schools and colleges of the state, to facilitate cooperation among them, to improve the effectiveness of science in the promotion of human welfare, and to increase public understanding and appreciation of the importance and promise of science in human progress.

**RESOLUTION:** The following resolution concerning our environment was recently approved by the Academy membership: "Be it resolved that the Nebraska Academy of Sciences, as the principal organization representing the scientists of the State, is greatly concerned with the deterioration of the environment. The scientific talent of Nebraska is considerable, and it is hoped that individually-collectively it may be better utilized by both State and federal agencies in addressing problems of destruction of trees, native prairie, groundwater resources and habitats."

**ESTABLISHMENT OF *THE TRANSACTIONS OF THE NEBRASKA ACADEMY OF SCIENCES*:** In 1969, during its eightieth session, the State Legislature of Nebraska passed Legislative Bill 776, which appropriated funds to aid the Nebraska Academy of Sciences in the publication of scientific works submitted by Nebraska scientists. Volumes 1 and 12 of the *Transactions* were published under this arrangement, but Volume 3 was privately funded. Volume 4–27 were published under the auspices of the Nebraska Department of Education with funds authorized by the State Legislature, except Volume 11—Special Issue was supported by a grant from the Peter Kiewit Charitable Trust. Beginning with Volume 28, support was from funds bequeathed to the Nebraska Academy of Sciences by C. Bertrand and Marian Othmer Schultz.

**"FRIENDS OF SCIENCE" AWARDS:** These awards are given to persons who are not actively engaged in scientific teaching or research, but who have shown unusual interest in promoting science and in sponsoring scientific programs in Nebraska. The following Nebraskans have received a Friend of Science Award: Mrs. Mabel L. Criss, Omaha (1970); Dr. Walter D. Behlen, Columbus (1976); Vance D. Rogers, Lincoln (1977); George and Olivia Lincoln, Lincoln (1980); Mr. and Mrs. Thomas C. Woods, Jr., Lincoln (1981); Dr. Lewis E. Harris, Lincoln (1984); Dr. Robert W. Allington, Lincoln (1989); Florence Boring Lueninghoener, Fremont (1992); Robert B. Crosby, Lincoln (1993); Virginia Dodd Smith, Chappell (1993); Dr. Donald Othmer, Brooklyn, New York (1994); John Frey, Lincoln (1995); Elizabeth Rubendall, Lincoln (1996); Professor T. Mylan and Eunice Stout, Lincoln (1996); Francis A. Haskins, Robert B. Johnston, and M. Rosalind Morris, all Lincoln (1997); Robert B. Nelson, Lincoln (1998); Albert W. Zechmann, Lincoln (1999); David E. Lewis, Lincoln (2000); Henry E. Baumgarten, Lincoln (2001); Claire M. Oswald, Omaha (2001); Robert and Martha Kaul, Lincoln (2002); Tranda S. Fischelis, Philadelphia, Pennsylvania (2003); Charles Holliday, Omaha (2004); Kathleen Jacobitz, Pawnee City (2005), and Charles Lang, Uehling (2005).

**FRIENDS OF THE ACADEMY:** The following individuals and organizations have contributed \$100 or more during the past year to help the Academy in promoting research and teaching of science and technology in high schools, community colleges, and universities throughout Nebraska: Robert Allington, Lincoln; Mary Ettel, Wayne; Francis Haskins, Lincoln; Rosalind Morris, Lincoln; T. Mylan Stout, Lincoln; James Wood, Lincoln; Nebraska Space Grant Consortium, Omaha; McGraw/Glencoe Publishing.

## NATS — NEBRASKA ASSOCIATION OF TEACHERS OF SCIENCE

The purpose of the Nebraska Association of Teachers of Science is advancement, stimulation, extension, improvement, and coordination of science education in all fields of science at all levels. The Association is dedicated to the improvement of science education in Nebraska.

Membership is available to those engaged in the teaching of science and to those interested in science education. Activities include: 1) *The Annual Fall Conference*, providing science educators with updates in content and strategies designed to enhance science education in Nebraska. Workshops, speakers, and concurrent sessions are available in each content area and at all levels from elementary to post secondary. 2) *The NAS/NATS Newsletter*, a publication designed to provide a communication link among all NATS members. Each edition provides information on current research in science education, resources, opportunities for workshops and conferences, teaching tips, activities of affiliated groups, and recognition for outstanding educators in Nebraska. 3) *The Presidential Award for Excellence in Science Teaching*, coordinated and administered by NATS. 4) *The Outstanding Contributions to Science Education Award*, given annually to a Nebraskan who has made outstanding contributions to science education. 5) *The Nebraska Science Olympiad annual competition for students*, sponsored by NATS to stimulate interest and provide recognition for achievement in science.

# **TRANSACTIONS OF THE NEBRASKA ACADEMY OF SCIENCES**

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Nebraska Space Grant Consortium

The Nebraska Academy of Sciences was founded 30 January 1880  
and is affiliated with the American Association for the Advancement  
of Science and the National Association of Academies of Science

All persons interested in science are welcome to become members of the Nebraska Academy of Sciences.

## NEBRASKA ACADEMY OF SCIENCES, INC.

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† † †

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Many thanks to the following individuals who served as manuscript reviewers for the current volume: Thomas Bragg, Jeffrey French, Raymond Guenther, Shelton Hendricks, Robert Kaul, Boyd Littrell, Roni Reiter-Palmon, Scott Snyder, Richard Stasiak, David Sutherland.

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