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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 I and II of the *Transactions* were published under this arrangement, but Volume III was privately financed. Volume IV and succeeding volumes are being published under the auspices of the Nebraska Department of Education with funds authorized by the State Legislature, supported by the last five governors, J. James Exon, Charles Thone, Robert Kerrey, Kay A. Orr, and E. Benjamin Nelson. Volume XI was supported by the Nebraska Department of Education, but the publishing of Volume XI—Special Issue, Symposium (*Man and the Changing Environments in the Great Plains*), August 1983, was made possible by a grant from the Peter Kiewit Charitable Trust, Omaha, Nebraska. The Symposium on 16–18 April 1980 was sponsored by the Center for Great Plains Studies, College of Arts and Sciences, University of Nebraska–Lincoln and the Institute for Tertiary and Quaternary Studies (TER-QUA), a Division of the Nebraska Academy of Sciences.

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# TRANSACTIONS OF THE NEBRASKA ACADEMY OF SCIENCES

Volume XX  
1993

WITH INDEX TO VOLUMES I–XX, 1972–1993

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Nebraska Association of Teachers of Science, NATS  
Institute for Tertiary and Quaternary Studies, TER-QUA

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The Nebraska Academy of Sciences was founded 30 January 1880  
and is affiliated with the American Association for the Advancement  
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ALL PERSONS interested in science, including the changing environments of the  
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## 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 and 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 NATS Newsletter*, a quarterly 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) *A Spring Drive-in Conference*, held annually to provide updates and activities on selected science-education topics. 6) *The Nebraska Science Olympiad annual competition for students*, sponsored by NATS to stimulate interest and provide recognition for achievement in science. 7) *The Technology, Ecology, Kids Camp*, a one-week experience for middle-school students. The program provides students with experiences using computers and robotics, as well as current information about wellness and environmental science.