

A Brief History *of:
The Science Teaching Section
of
The Nebraska Academy of Sciences, Inc.
also known as
The GNATS Division
and
The NATS Division

*[As excerpted from the Nebraska Academy of Sciences Newsletter]

Covering the time period from December 1961 through September 1997

Prepared as a Project of the NATS Past-Presidents' Council
Robert Feurer, Chairman
James McGahan, member

December 8, 1961

MESSAGE FROM THE PRESIDENT

Why not flip over those winter months on your calendar and circle the dates April 13 and 14, for these days belong especially to those people interested in science in our state. The Seventy-second Annual Academy Meeting will be held in Lincoln in 1962 in the beautiful new Kellogg Center for Continuing Education.

The strength and well being of our nation depends a great deal on science these days and part of this strength stems from what we can do here in the Great Plains state of Nebraska. Will you please urge those young high school students to take part in our Junior Academies? Will you also help those young college students prepare for participation in our Collegiate Academies? Are you willing as a Senior Member of our scientific community to share some of your research by preparing a paper for the Academy Section of your choice? In '62, let's be there, too! How about shaping up that research now for an Academy paper in April?

SCIENCE TEACHING SECTION

During the Annual Meeting of the Academy, April 13-14, 1962, the Science Teaching Section, which was organized last year, will meet. All teachers interested in science at elementary or secondary school levels are invited to attend. The Section Program is being planned by a committee consisting of Marlin Languis, Univ. of Nebr. Charles Kofoid, Whittier Junior High School, Lincoln and Oscar Bretthorst, Southeast High School, Lincoln.

February 1, 1962

ANNUAL MEETING 1962

The Academy will hold its Seventy-second Annual Meeting on April 13 and 14 at the Center for Continuing Education on the College of Agriculture Campus, the University of Nebraska. You will enjoy the experience of meeting at the new Center. There will be a small registration fee of \$1.00 for the meeting. You will receive another announcement about pre-registration and the reservations for the Annual Banquet. Please contact your Section Chairman at your earliest convenience if you wish to take part in the Program. You must have your Abstract in to your Section Chairman not later than February 26th (See Academy Newsletter - December 8, 1961.)

JUNIOR ACADEMY OF SCIENCES SECTION MEETINGS

Hastings Section

Hastings College, March 24; Sister Jean Clare, O. P., St. Cecelia High School, Hastings.

Lincoln Section

University High School, April 14; Gunnar Overgaard, Southeast High School, Lincoln, Chairman. Mrs. Mary R. Miller, Robin Mickle Junior High School, Lincoln, Secretary.

North Platte Section

North Platte Junior High School, March 15 and 16; Gerhard Eaves, North Platte High School, Chairman. G. Allison Yost, North Platte High School and Randall Witt, North Platte Junior High School, Secretaries.

Omaha Section

University of Omaha Field House, April 7; Bruce Holmquist, Westside Community High School, Omaha, Chairman. Dan Tredway, University of Omaha, Secretary .

Wayne Section

Nebraska State Teachers College at Wayne, March 30; Richard Engelson, Pierce High School, Chairman. Irvin Brandt, Nebraska State Teachers College, Wayne, Secretary.

SCIENCE TEACHING SECTION

The Science Teaching Section will meet April 13; 1:30 to 5:00 p.m. at the Nebraska Center for Continuing Education, and on April 14; 9:00 a.m. through 12:00 noon at University High School, Lincoln. The April 13th meeting will include an address and a panel discussion. The April 14th meeting will include a second address and small group presentations.

April 6, 1962

ANNUAL MEETING, APRIL 13-14

The Seventy-second Annual Meeting of the Nebraska Academy of Sciences will be held at the Nebraska Center for Continuing Education at 33rd and Holdrege, Lincoln. It is hoped that the entire membership will participate.

General Lewis B. Hershey, Director of the U. S. Selective Service System, will speak at the General Session of the Academy at 11:00 a.m. on Friday, April 13 in the Auditorium. All Academy members will want to hear General Hershey talk on 'Science and Manpower.' Plan to come early and register prior to General Hershey's talk. The Registration Desk will be in the Lobby of the Center.

The Annual Banquet and Business Meeting will be held Friday evening, April 13 at 6:30 in the Columbus Room. The Honor group members of the Nebraska (High School) Science Talent Search have been invited to the Banquet. These young scientists will be honored and deserve your interest and encouragement. Dr. James Rutledge, University of Nebraska, will give the Past Presidential address. Plan to come to the Banquet and

bring guests with you. The tickets are \$2.50. You will have an enjoyable evening visiting with Academy members from all parts of the State and meeting the young scientists from various high schools of Nebraska.

There is a small registration fee of \$1.00 this year. This is to help defray expense for the use of the Nebraska Center facilities. If you have not paid your 1962 dues, please enclose the \$3.00. Thanks.

June 6, 1962

ANNUAL MEETING 1963

The Seventy-third Annual Meeting of the Academy will be held on May 3 and 4 at the Nebraska Center for Continuing Education on the College of Agriculture Campus of University of Nebraska. You are urged to plan ahead and put the May 3 and 4 dates on your 1963 calendar at this time.

REPORT OF THE 1962 ANNUAL MEETING

The Seventy-second Annual Meeting of the Academy was held at the Nebraska Center for Continuing Education on Friday and Saturday, April 13 and 14. This was the first time in many years that the Academy had held the various sessions in one building. The Anthropology Section, however, met in Burnett Hall on the city campus of the University of Nebraska, and the Junior Academy at University High School. At the time eight of the sessions were meeting simultaneously on Friday afternoon, there were 300 in attendance. The total for the ten sessions on Friday amounted to 420. The members who attended the Academy Meetings this year were very enthusiastic about the facilities at the Nebraska Center and voted to have the 1963 meetings there. Many of the out-state members used the hotel facilities and reported that these, too, were very satisfactory. The Annual Business Meeting and Banquet were held Friday evening in the Columbus Room at the Center. The honor group members of the Nebraska (High School) Science Talent Search were honored.

The Junior Academy Meetings on Saturday were well attended. More than 500 viewed the exhibits and watched the demonstrations. Successful Junior Academy Meetings also were held in North Platte (March 15-16), Hastings (March 24), Wayne (March 30), and Omaha (April 7). Approximately 1,000 students participated in the five sections.

January 24, 1963

ANNUAL MEETING 1963

The seventy-third Annual Meeting of the Academy will be held at the Center for Continuing Education on the Campus of the College of Agriculture, University of Nebraska, Lincoln, on May 3 and 4. The meetings were so successful last year at the Nebraska Center that the Policy Committee recommended that the 1963 Meetings be held there. The Academy members at the Annual Business Meeting on April 13 voted unanimously to accept the recommendation of the Policy Committee. The 1962 Meeting of the Academy set an attendance record. Some 1,120 people were in attendance at the sixteen sessions of the Senior and Junior Academies. The Junior Academy, as well as the Saturday Sessions of the Anthropology and Science Teaching Sections, met on the City Campus of the University of Nebraska.

JUNIOR ACADEMY OF SCIENCES - SECTION MEETINGS

The Nebraska Junior Academy of Sciences will meet in five sections this year. Programs consist principally of presentations by junior and senior high school students

consisting of exhibits and formal papers on science topics. Each student who participates by presenting a paper or exhibit will receive a certificate of participation.

The Junior Academy Sections are as follows: (1) KEARNEY-HASTINGS at Nebr. State Teachers College, Kearney, March 30, Chairman & Secretary-George Campbell, Superior High School: (2) LINCOLN at University High, May 4, Chairman-Bob Resz, Lincoln N.E.High and Secretary-Sister Mary St. Leonard, St. Mary's Cathedral School Lincoln; (3) NORTH PLATTE at North Platte Senior High (date not set) Chairman Gerhard A. Eaves, North Platte Senior High and Secretary-Randall Witt, North Platte Junior High: (4) OMAHA at University of Omaha, April 27, Chairman-R. L. Steiner, Bellevue Junior High, and Secretary-Dan Tredway, Univ. of Omaha (5) WAYNE at Nebr. State Teachers College, Wayne, March 29, Chairman-Paul Zingg, Wayne High and Secretary--Jack Bostrack, Nebraska State Teachers College, Wayne.

James A. Rutledge,
Secretary of Junior Academy

April 23, 1963

SCIENCE TEACHING SECTION

The Science Teaching Section, the newest Section of the Academy, will meet for its third year during the Annual Meeting of the Academy. The program is aimed at elementary teachers interested in science, and at secondary school teachers of science. The theme for the Friday afternoon (May 3, 1963) program will be "Teachers of Earth Sciences. " A forum and discussion concerning the teaching of earth sciences will be held for teachers of elementary, junior high, and senior high schools. Academy Secretary, C. B. Schultz, will be the main speaker. On Saturday morning there will be separate sections for the elementary and for the secondary teachers. Reports concerning various aspects of teaching in the sciences will be presented by the participants.

April 24, 1964

SCIENCE TEACHING SECTION

The Science Teaching Section of the Academy will meet for its fourth consecutive year. The program is designed to interest elementary teachers, who are concerned with science, and secondary school teachers of science. The afternoon of Friday, May 1, at the Nebraska Center for Continuing Education, Dr. Merle Brooks of Omaha University will address the group on "Biology Teaching Today." Dr. Brooks' address will be followed by a panel discussion. Saturday morning, May 2, at University High School, concurrent sessions will deal with elementary science and secondary school science respectively.

JUNIOR ACADEMY

Three Junior Academy Sections have now held their meetings successfully. The Hastings Section met at Hastings College on March 14 under the direction of Sister Mary Stephanie, O. S. B., of St. Joseph's School, York. The Wayne Section met on the campus of Wayne State College March 20 under the direction of Gilbert Nichols of Wayne State College. The Omaha Section met in the University of Omaha Field House on April 11 under the direction of Mrs. Dorothy Bishop of Bellevue Junior High School, Dr. D. N. Marquardt of the University of Omaha, and Sister Dolores of Notre Dame Academy, Omaha. The Lincoln Section will meet at University High School on May 2 under the direction of Mrs. Ruth Whittemore of Millard Lefler Junior High School, Lincoln, and Frederick Deeds of Seward, Nebraska.

James A. Rutledge, Secretary

January 26, 1965

The SEVENTY-FIFTH Annual Meeting of the Academy will be held at the Nebraska Center for Continuing Education on the East Campus of the University of Nebraska, Lincoln, on April 30 and May 1. The Program Committee plans to have an outstanding program in celebration of the SEVENTY-FIFTH Annual Meeting of the Nebraska Academy of Sciences.

The Academy was organized in 1891 in Lincoln. Forty people representing different branches of science were present at the organizational meeting, and of these sixteen became charter members, namely: J. T. Armstrong (representing Physiology), C. E. Bessey (Botany), Rosa Bouton (Chemistry), L. Bruner (Entomology), H. C. Clason (Archeology), J. S. Dales (Microscopy), H. B. Duncanson (Biology), E. T. Hartley (Microscopy), J. S. Kingsley (Zoology), Rachael Lloyd (Chemistry), A. S. von Mansfelde (Medicine), T. H. Marsland (Botany), Roscoe Pound (Botany), W. H. Skinner (Botany), A. B. Stephens (Botany), G. D. Swezey (Biology and Astronomy). Later in the same year Erwin H. Barbour came to Nebraska and joined the Academy, thus becoming the first member to represent the Earth Sciences. You will note that a number of these organizers were persons who became internationally known for their scholarly contributions to science and other fields of learning. Nebraska is a better State because of the scholarly activities of these early scientists. These people will be honored at the 1965 Annual Meeting. You are encouraged to participate at the celebration. An information sheet concerning the preparation and presentation of papers for the SEVENTY-FIFTH Annual Meeting is attached.

Dr. Loren C. Eiseley, an internationally known author and lecturer from the Department of Anthropology, University of Pennsylvania, will give the Annual Maiben Memorial Address at 8 00 p.m. on April 30 in the Auditorium of the Nebraska Center for Continuing Education. The address will follow the annual banquet and business meeting. Dr. Eiseley is a native of Lincoln and a graduate of the University of Nebraska. In 1960 the University of Nebraska honored him with a Doctor of Letters degree. He is one of the greatest thinkers and writers of today, and his many books and writings have been well received throughout the world. The honors which he has received are too numerous to record here. You will want to hear Dr. Eiseley. Plan to attend the annual banquet now. There will be an overflow crowd to hear Dr. Eiseley, so plan now to attend the annual banquet. This will assure you of a reserved seat in the auditorium.

October 31, 1967

1968 ANNUAL MEETING

The Seventy-eighth Annual Meeting of the Academy will be held in Lincoln on Friday and Saturday, April 26-27, at the Nebraska Center for Continuing Education at 33rd and Holdrege. Thirty-seven members of the Executive-Policy-Program Committee met at Kearney State College for an Academy work session on Saturday October 7. Representatives from sixteen universities and colleges were present. In addition Omaha and Lincoln high schools and the Nebraska Ornithologist's Union were represented. In the afternoon science teachers from various schools of the State met in order to plan for the Science Teaching Section of the Academy. All of the Academy members, who participated in the two meetings, were very enthusiastic about the planning sessions. It was felt that at least one similar meeting should be held out in the State each year.

The Treasurer's report indicated that the bank balances as of October 6 were as follows: Academy, \$280.36; Maiben, \$1,138.47(not including investments); Visiting Scientist program, \$713.32; Inqua, \$1,495.09.

March 15, 1968

At the meeting of the Policy Committee in Kearney earlier this academic year, it was decided to experiment with an Academy Newsletter which includes news from the participating schools as well as Academy announcements. Such a newsletter is, of course, dependent upon the news items submitted from the schools. It is hoped that the newsletter will serve a useful purpose and that good success will be secured in receiving news items of interest to the membership.

Henry F. Holtzclaw, Jr. of Lincoln is the Editor of the Newsletter. Robert B. Nelson of Lincoln, John E. McMillan of Omaha, and John C. W. Bliese of Kearney are the Regional Editors.

September 1968

HIGHLIGHTS OF THE LAST ANNUAL MEETING

The Annual Meeting of last April held at the Nebraska Center was a success with a record attendance of 378 persons registering. A total of 133 papers were given: 16 from the Biological & Medical Section, 25 from Chemistry & Physics, 11 from the new section, Dental Research, 15 from Earth Science, 7 from Engineering, 11 from History & Philosophy of Science, 10 from Science Teaching, 13 from Collegiate Academy, 6 from Nebraska Chapter of Geographical Education, 8 from Nebraska Ornithologists Union, 3 from the Nebraska Psychological Association, and 8 from the Nebraska Section of Mathematics Association of America.

A large crowd attended the Maiben Lecture, given this year by Dr. Alfred Sherwood Romer, Alexander Agassiz Professor of Zoology from Harvard University. Following the lecture, many Academy members attended the reception given in honor of Dr. and Mrs. Romer.

MARK YOUR CALENDAR: 1969 ANNUAL MEETING APRIL 25-26

February 1969

A bill has been submitted to the legislature requesting \$6,000.00 to publish 2 years of Academy transactions. This bill is sponsored by Senators Orme, Whitney, Klaver, Moylan and Bloom. In this year's effort to obtain funds, we have pointed out that there is no outlet in the state for research on Nebraska problems done mainly by Nebraska scientists. Such an outlet is needed to develop a body of knowledge about the state and to encourage more study of Nebraska's problems and resources. If this Year we obtain these funds, it will be through the efforts of those men on the Academy's Policy Committee who have contacted their legislators and solicited statewide support for the program.-R. B. Nelson, President, C. B. Schultz, Executive Secretary

September 1969

HIGHLIGHTS OF THE LAST ANNUAL MEETING

The attendance of the last Annual Meeting has surpassed any we have ever had. Five hundred six registered. One hundred ninety-three papers were given. The Anthropology Section joined us this year at the Nebraska Center and presented one of their best programs. The Science Teaching Section made a new approach and successfully appealed to many Secondary and Elementary Science Teachers in Nebraska, The appeal was from the scientific research area to practical methods in teaching. The Academy membership leaped during the Annual Meeting. And we more than met our goal "500 for 1969"! The auditorium was filled for the evening Maiben Lecturer, who was Dr. J. Tuzo Wilson from the University

of Toronto. His topic was "Sea Floor Spreading and its Consequences: The Origin of Ocean Basins". Dr. Wilson proved to be a very excellent and entertaining speaker who excelled in his ability to present a difficult subject in an easy and stimulating manner.

C. B. Schultz, Executive Secretary

1969 MEMBERSHIP CAMPAIGN
SUCCESS!

Our goal was set for "500 in 1969" and we now have exceeded this. Membership totals 635; two hundred five more than in 1968. This is probably the largest increase in a single year in the history of the Academy. The Science Teaching Section has been steadily growing since last April, Thanks to the efforts of each and every member of the Academy we are now contacting new members in many areas of Science, including Industry as well as Universities, Colleges, Secondary and Elementary Schools. With this continued effort on your part, the Academy will grow not only in size but in strength and quality.

C. B. Schultz, Executive Secretary

A NEW MEMBER ADDED TO THE EXECUTIVE COMMITTEE

At the Annual Spring Meeting, a motion was made and carried that because of the growing Science Teaching Section, the Chairman of that Section become a member of the Executive Committee of the Nebraska Academy of Sciences. This year's Chairman is Professor Thomas E. Leonard of Concordia High School, Seward, Nebraska.

SCIENCE TEACHING SECTION

Approximately 130 teachers were in attendance at the Science Teaching Section (STS) of the Nebraska Academy of Sciences Annual Meeting last April. This number was about 300% more than the average attendance in years past. Teachers attending the STS meetings were from all levels of schooling elementary, junior high, senior high and college.

Teachers attending the business meeting voted new life into the STS. By almost unanimous decision, the teachers approved a resolution which stated that the new officers were to "...appoint and coordinate a steering committee who will carry out the necessary planning to have this organization functioning in its most effective way...this committee should strive to enlarge the membership of the organization, to publish some type of newsletter, to encourage regional meetings for science teachers, to develop a constitution and other structure for this organization such as the election of officers and to appoint whatever committees are needed to accomplish these and other tasks'.

At the time this newsletter is written the Committee has not been completely chosen. An effort is being made to have representation from all areas of the state and from each level of schooling. Anyone interested in working with the Science Teaching Section in this capacity is urged to contact one of the new officers.

At the Nebraska Academy of Sciences Meeting last spring, Mr. Thomas Leonard, Science teacher at Concordia High School, Seward and Mr. Robert Fisher, formerly with the State Department of Education, and now with the University of Nebraska, Lincoln, were elected co-chairmen of the Science Teaching Section.

February 1970

SCIENCE TEACHING SECTION

The Lincoln area chapter of the Nebraska Academy's Science Teaching Section is holding its area meeting at Nebraska Wesleyan University on Thursday, February 26, at 5:00 P. M. at the Olin Hall of Science. A tour of the Nebraska Wesleyan University facility, a business meeting, and a lecture at 8:00 P.M. by Dr. Commoner of Washington University on "Problems of Environmental Pollution" are planned. Nebraska Wesleyan University has graciously invited the Section to attend this lecture which is part of their Year of Science Program. Nebraska Wesleyan has also invited us to partake of a free dinner at 6:00 P.M. at their dining hall. If you are planning to attend the dinner you must let either of the co-chairmen know absolutely no later than Saturday, February 14. Your co-chairmen are: Bob Fisher, Dept. of Secondary Education, University of Nebraska, Lincoln, Nebraska 68508, and Tom Leonard, Concordia High School, Seward, Nebraska 68434.

September 1971

FALL MEETING OF THE ACADEMY AT CHADRON, OCTOBER 8 - 9

The Academy's Fall Meeting will be held at CHADRON STATE COLLEGE on October 8 - 9, 1971. A copy of the Program is included with the Newsletter. Professor Doris Gates and Larry Agenbroad are Coordinators of the Program. A very worthwhile program has been planned. The participants will stay at the College's dormitories and special accommodations are available for those with wives or husbands.

The Science Teaching Section will campout at Chadron this year in conjunction with the Academy's Fall Meeting. The Section will meet at 8:30 a.m. at the Science Building at the College, just prior to the field trips.

Please fill out the attached registration blank and return it to the Academy Office at your earliest convenience. The fall is a beautiful time of the year in western Nebraska, so a large number of the Academy members will wish to attend the meetings.

January 1972

FALL MEETING OF THE ACADEMY AT CHADRON, OCTOBER 8 - 9

A very successful Fall Meeting of the Academy was held at CHADRON STATE COLLEGE on October 8 - 9, 1971. Professors Doris Gates and Larry Agenbroad of Chadron were Coordinators of the Program. The Science Teaching Section's fall campout was held in conjunction with the meeting. Approximately 100 people including family members participated in the meeting and associated field trips.

JUNIOR ACADEMY OF SCIENCES

"How Can We Strengthen the Junior Academy of Sciences and the Science Teaching Section?"
K. Fred Curtis, Co-Chairman, Science Teaching Section and Corresponding Secretary of the Academy

This question was asked and discussed at length in a meeting in Lincoln on December 11, 1971. Junior Academy of Science College counselors and Science Teaching Section members present were: Paul Ackerson, Univ. of Nebr. Omaha; Laddie Bicak, Kearney State College; Keith Fredericks, Kearney State College; Harland Pankratz, Wayne State College; Don McCurdy, Univ. of Nebr. - Lincoln; Bruce Holmquist, Omaha Suburban Area Council of Schools; Dale Rathe, Lincoln Public Schools; Harlan Wyrick, McCook College; and Fred Curtis, State Department of Education.

The following were items of discussion: (1) Ideas for increasing J.A.S. participation; (2) Possible standardization of J.A.S. policies; (3) The publication of J.A.S papers; (4) Presentation of J.A.S papers at the Academy Spring Meeting; (5) Relationship of J.A.S. with the Greater Nebraska Science and Engineering Fair at Nebraska City; and (6) Development of J.A.S. statewide student organization.

October 1973

SCIENCE TEACHER'S CAMPOUT

The Campout of the Science Teaching Section of the Nebraska Academy of Sciences, held at Halsey, Nebraska, October 6 & 7, 1973, was a huge success. The largest registration-132 persons-for any fall retreat, thus far held, had representatives from all parts of Nebraska and from all levels of science teaching. The success was due to the fine leadership, the science-rich environment, and the excellent weather. Thanks to all who came and all who contributed. So many who attended expressed desires to return to Halsey again.

Dale Rathe

February 13, 1974

SCIENCE TEACHING SECTION

ENERGY QUESTIONS - MESSAGES FOR TEACHING is the theme for the Nebraska Academy of Sciences Friday, April 19, 1974 at 1:30 p.m. at Nebraska Wesleyan University. Oil company representatives, environmentalists, politicians, and scientists are scheduled for the afternoon sessions to give major ideas and concepts for teaching Nebraska youth. Get information about the energy situation and ask your own questions about the energy crisis from the 1:30 p.m. session. Hear the research papers presented and vent your ideas in the business meeting that follows.

Both teachers and students are welcome at all Academy meetings. Talk to college scientists about careers now opening in science, visit with other teachers about your problems, do your own thing.

Bring your students along and have them participate in the Junior Academy activities - (1) Friday morning tours at facilities listed below, and (2) student project presentations on Friday afternoon.

Join with the Academy group for meals at the campus center if you wish, but don't miss the 8:00 p.m. Maiben Lecturer, Dr. Samuel Treves, Arctic explorer. He's incredible!

Below are possible tours for students and teachers. MAKE YOUR OWN ARRANGEMENTS by April 1, 1974. They are alerted and can handle you at times listed - if you are first!!!

- (1)- BEHLEN LABORATORY, 10th & U Streets, Dr. Edward J. Zimmerman - 472 2774, (Atomic physics, accelerators, solid state physics) 1 - 5 p.m. 1 hour tours
- (2) NEBRASKA ENGINEERING CENTER, 17th & Vine Streets, Dr. Don Edwards 472-3181 (All kinds of engineering) 9 or 10:30 a.m. 1 1/2 hour tour
- (3) HARRIS LABORATORIES, 624 Peach Street, Mr. Robert Harris - 432 2811, (Chemistry in practice, veterinarian supplies, quality control) Small Groups 9 a.m. to 4 p.m. 45 minute tours.
- (4) NORDEN LABORATORIES, 601 West Cornhusker Highway, Mr. Metzgar - 475 4541 (Medicines,

quality control, production processes) 4 times only - 9 a.m. 10:30 am, 12 Noon, and 1:30 p.m.

- (5) MORRILL HALL, 14th & U Streets, Jack Dunn - 472 2643 (Paleontology, Ceres the plastic woman, geology, largest mammoth in the world, etc.) 9 - 4
- (6) ETV BUILDING, 1800, North 33rd Street, Mr. George Collins, P. O. Box 8311, 472 3611, 5:00 P.M. ONLY (45-50 minutes)
- (7) DORSEY LABORATORIES, Northeast Highway 6, Personnel Dept., Attn: Roberta 464 6311, 9 - 11 a.m., 1 - 3 p.m. (1 1/2 hour tours)
- (8) VETERANS HOSPITAL, 600 South 70th Street, Mrs. Margaret Hays -489 3802 Ext. 330 Hospital, intensive care, laboratory activities, physical therapy clinical lab, dental clinic, inhalation therapy, hemodialysis) 30 only, 10:30 a.m. - 12:15 p.m. only.
- (9) CHET AGER NATURE CENTER, 2740 A Street, Dr. Esther Bennett - 435 6147 -(Nature walks and talks, flora and fauna of Nebraska) 9:30 & 10:30 a.m.
- (10) LINCOLN TELEPHONE AND TELEGRAPH, 1440 N Street, Mrs. Vurling - 435 4321(Equipment and operation of PBX, dialing, etc.) 9 - 11 a.m., 2 -4 p.m.(45 minute tours)

NSTA CONVENTION -- Science teachers interested in attending the National Science Teachers Association Convention in Chicago March 15 - 19 should contact Roger Macklem at the Nebraska State Department of Education, (492) 471-2477 at your very earliest convenience. There will be a bus leaving from Lincoln with a stop in Omaha on Friday morning March 15. The return trip will be Monday afternoon, March 18. Cost will be shared by those riding the bus (estimate \$30).

HAVE YOU -- ?

Have you seen the Environmental Education article in the February 1974 Nebraskaland Magazine? It might be a help for you.

Have you caught a child being good lately?

Have you written your congressman supporting reclamation of refuse?

Have you thought about attending the 1974 regional NSTA Conference in Denver October 31-November 2, 1974? Contact Dr. Glenn McGlathery, University of Colorado, Denver, Colorado 81202.

Have you thought of a nominee for the Science Teaching Section of the Nebraska Academy of Science for 1974-76? The election will be held at the spring meeting April 19th.

NEWSY ITEMS -

Dr. Don McCurdy, UN-L, is a candidate for Board of Directors from District X of the National Science Teachers Association. We encourage your support.

The Eighth Annual Federation for Unified Science Education (FUSE) conference will be held May 2 - 4, 1974 at Columbus, Ohio. To get on their mailing list or for understanding their programs write: Center for Unified Science, P.O. Box 3138, University Station, Columbus, Ohio, 43210.

The National Science Teachers Association is surveying teachers for ideas and

materials on two topics - energy and safety. If you or your students have activities, experiments, games, audio-visual, or other original materials on energy and/or school science safety, please share them with the national office. In either case contact Mary E. Hawkins, Director of Publications, 1201 16th St. NW, Washington, D. C. 20036.

September 16, 1974

SCIENCE TEACHER'S CAMPOUT

The Fifth Annual Campout for the Science Teaching Section of the Nebraska Academy of Sciences will be held Saturday and Sunday, October 19 and 20, at the Nebraska National Forest at Halsey, Nebraska.

The Campout features scientific information, relaxation, and socialization. There will be various speakers in the 4-H Lodge, also field trips and sharing of ideas. This should be a memorable weekend comparable to last year's campout.

There are camping facilities available at the nearby Halsey Forest campsite. Heated cabins and dining facilities are available on a "first-come, first-serve" registration basis. Registrations should be received at the Academy Office, Room 306 Morrill Hall, before October 10.

Families are welcome but each member pays full fees regardless of age. For the cabin occupants, bring your own bedding, towels, toiletries, and suitable outdoor clothes. There are separate dormitory facilities for men and women. Thus a family would not be able to stay together in a single cabin. You may arrive Friday if you wish. The program will begin at 9:00 a.m. on Saturday. No school classes permitted.

An ADVANCE REGISTRATION blank is enclosed for your convenience. The registration cost is \$2.00 regardless of age. The additional costs are listed on the registration blank.

Joe Dappen & Roger Macklem
Co-Chairmen, Science Teaching

The entire Executive Committee is working with our Editor and an editorial committee to produce the third volume of our Transactions. This publication along with the Newsletters, the Proceedings and Abstracts, our Annual Maiben Lecture, plus the exchange of information during our sessions and the opportunity to participate in such events as our Campout of the Science Teaching Section makes membership in the Nebraska Academy of Sciences a bargain in this day of inflation. I call on all my colleagues to become recruiters in this organization. Encourage fellow scientists to join, invite members to our sessions and submit articles to our sections and to the Transactions of the Nebraska Academy of Sciences. Be active and have the Academy prosper and grow.

Theodore J. Urban, Academy President

September 18, 1975

SCIENCE TEACHER'S CAMPOUT

The Sixth Annual Campout for the Science Teaching Section of the Nebraska Academy of Sciences will be held at Hordville, south of the Platte River near Central City, Friday, Saturday, and Sunday, September 26, 27, and 28. A good program has been planned. As of this date, one hundred and one people have registered, an attendance lower than anticipated. Let's not let the Science Teachers Campout become an endangered species.

Roger E. Macklem

June 1976

MEETING OF EXECUTIVE COMMITTEE

The Executive Committee met on June 5, 1976, at Morrill Hall, University of Nebraska-Lincoln, to transact business of the Academy. The Academy will continue to be known officially as "The Nebraska Academy of Sciences, Inc."

Volume IV of the Transactions of the Academy will be published by the State of Nebraska Department of Education. Funds for this purpose were provided by the State Legislature with the support of the Governor's Office.

The drive for private funds is progressing, and it is planned to complete this project prior to September 1. Academy member, Lew Harris of the Harris Laboratories, is Chairman of the Financial Drive Committee.

It is planned to strengthen the Science Teaching Section of the Academy and the Junior Academy program in various parts of the State.

Volume III of the Transactions is in the final proof stage.

August 1976

ANNUAL FALL CAMPOUT FOR NEBRASKA SCIENCE TEACHERS

The annual Fall Campout for Nebraska Science Teachers is being held at Hordville, October 8-10. Camp Covenant Cedars on the Platte River will again be made available to the teachers and their families. Those attending will be provided with a number of concurrent sessions in the life, physical, and space sciences during the morning and afternoon sessions on Saturday plus a morning session on Sunday. Individual choices will be made upon arrival (Friday evening).

The fee for Academy members and spouses will be \$16.00 each for 2 nights and 5 meals. Non-members price is \$18.00 and for children under 12 it will be \$12.00. All prices include registration. Campers in attendance will have only a \$4.00 registration fee. Checks are payable to the Nebraska Academy of Sciences.

For further information call the Academy Office 472 2644, Bruce Holmquist at ESU #3 in Omaha 530 2727, or Robert Reeder at East High School, Lincoln 489 5543.

June 1977

ANNUAL FALL CAMPOUT FOR NEBRASKA SCIENCE TEACHERS

The CAMPOUT for Nebraska Science Teachers will be held at Hordville this year, on Friday, Saturday, and Sunday, September 30 (evening), and October 1 and 2. The facilities at Camp Covenant Cedars on the Platte River have again been made available to the science teachers and their families. The life, physical, and space sciences will be stressed at concurrent sessions on Saturday and Sunday (morning only). Choices of sessions can be made during registration at Hordville, or through pre-registration to the Academy Office.

September 1977

ANNUAL FALL CAMPOUT FOR NEBRASKA SCIENCE TEACHERS

An opportunity to meet together, share ideas, and enjoy some of Nebraska's great outdoors exists in the immediate future. It is time once again for the annual fall Science

Teachers Campout. The location this year is again at Camp Covenant Cedars, north of Hordville, Nebraska. The dates are Friday, September 30 to Sunday, October 2. The following is a listing of scheduled events, prices, and a tear off registration form, to be mailed to the Academy Office.

During the two days, the following topics will be presented for your selection: Bird Watching - Ruth Green; Rocks & Minerals - Karen & Charles Messenger; Simulation Games - Gary Gablehouse; Energy Ideas Workshop, - Gary Wright; Outdoor Education - Doug McCallum; Laboratory Safety Guidelines - Donald Woodburn; Art Projects - Ken Bassett; Astronomy - Clyde Sachtleben & Mark Gealy; Boomerangs - Mike Larson; HISSA - Bruce Holmquist; Energy Alternatives - Lincoln Justice; Energy Update - Don Edwards; and Energy Education Materials - Donald McCurdy.

Cost Summary:

- A. \$16.00/person for Academy members; includes 2 nights' lodging in a cabin and five meals (three Saturday, two Sunday).
- B. \$18.00/person for non-Academy members for same accommodations in A.
- C. \$4.00/family for campsite (tents; trailers).
- D. \$10.00/person for meals only.
- E. \$12.00/person for entire weekend for children under 12 years.

Check in will be Friday night from 6 to 9 p.m. For further information if you have questions, contact Dr. Bob Reeder in Lincoln at East High School, phone number (402) 489 5543.

August 1978

ANNUAL FALL CAMPOUT FOR NEBRASKA SCIENCE TEACHERS

The Campout for Nebraska Science Teachers and their families sponsored by the Science Teaching Section of the Academy will be held on Wednesday evening, Thursday, and Friday (until 4:00 p.m.) October 25, 25 and 27 at Maranatha Bible Camp in Maxwell. Previous campouts have proven to be very instructive and enjoyable to all participants. Deadline for returning advanced registrations to the Academy office is Friday, October 13, 1978. Bruce Holmquist or Academy has further information.

November 1978

ANNUAL FALL CAMPOUT FOR NEBRASKA SCIENCE TEACHERS

The Campout of Nebraska Science Teachers at Camp Maranatha, October 26-28 was blessed with exceptional presentations and experiences for science teachers of all levels, with the outstanding facilities and with unusually mild weather. The facilities, including carpet and fireplaces, added so much that one can hardly call it a campout anymore.

The group decided to return on Teachers' Convention next year, for another professionally well-planned program. The group suggested that a planning committee help the co-chairpersons get ready for next year's campout. Election of chairpersons should probably be at the Fall Campout rather than at the Spring Academy Meeting.

James Landon, Seward, was elected to fill out the unexpired term of Bruce Holmquist as Co-Chairperson of the Science Teaching Section of the Academy. You are encouraged to make a presentation at the Spring Academy Meeting. Information about presentation forms and dates is given in other Academy literature.

Dale Rathe, Co-Chairman

March 1979

Because of the growth and expansion of activities of the Academy during the past five years the financial problems have become critical. Fortunately, various friends of the Academy, businesses, foundations, private individuals, and members have donated generously to keep the Academy solvent. Often financial support has come from Life and Emeritus Members, who no longer need to pay dues. If it were not that two devoted Life Members, the late Rachael and Benjamin Maiben of Palmyra, Nebraska, who left most of their estate, including a fine Otoe County farm, to the Academy, our organization probably would -not have been able to function as a vital scientific organization in the State. The Maliben Endowment does provide approximately one-fourth, of the funds to keep the Academy active. It is hoped that other endowments will be established.

Teaching Section of
Nebraska Academy of Science
April 20, 1979 Nebraska Wesleyan

A DAY'S PROFESSIONAL ACTIVITIES
FOR
SCIENCE TEACHERS

Science teachers are welcome to attend any Academy session listed in the program. Sessions begin at 8:00 a.m.

- 9:00 - 9:45 Junior Academy High School Students Set Up Exhibits
 Olin Hall, Room 110, Don Woodburn Director
- 9:45 - 11:40 Teaching Section of Nebraska Academy of Science
 Olin Hall, Room 111, James Landon and Dale Rathe,
 Chairpersons
1. THE DEVELOPMENT AND VALIDATION OF A CRITERION-REFERENCED TEST OF SCIENCE PROCESSES, George Royce, UNL, Department of Secondary Education
 2. COGNITIVE LEVELS OF COLLEGE STUDENTS: SCIENCE MAJORS VS NON-SCIENCE MAJORS, David P. Maloney, Creighton University
 3. A COMPARISON BETWEEN INDIVIDUALIZED AND SMALL GROUP INSTRUCTION IN PACE CHEMISTRY WHEN EVALUATING THE COGNITIVE DOMAIN, AFFECTIVE DOMAIN, AND SELF-DIRECTEDNESS, James E. McGahan, Grand Island, Northwest High School
 4. COMPUTER ASSISTED SCIENCE CLASS FOR JUNIOR HIGH, Patrick McGill, Lincoln, Mickle Junior High School
 5. ADVANCED BIOLOGY FOR HIGH SCHOOL SENIORS: A COURSE OUTLINE WITH INDEPENDENT RESEARCH OPTIONS, Jim Landon, Seward High School
 6. SUMMER MARINE BIOLOGY EXCURSION, Bob Heng, Lincoln, East High School
- 11:45 Business Meeting of Teaching Section
 Olin Hall, Room 111
- 11:30 - 12:30 Lunch
 Nebraska Wesleyan Cafeteria

- 1:15 Planning Committee for fall Campout of Nebraska Science Teachers
Randy Hubbard Pat Geary Ruth Green Dale Rathe
Virginia Dowding James Woodland James Landon
- All science teachers are welcome to help plan the fall campout.
(Stop at registration desk to learn location of meeting.)
- 2:00 - 4:30 Junior Academy Presentations by Nebraska High School Students
Olin Hall, Auditorium
- 4:00 - 5:00 Continuation of Campout Planning Group
(Place to be announced)
- 5:45 - 6:45 Social Hour
Faculty Lounge, Campus Center
- 6:45 Annual Banquet
Dining Room, Campus Center
Presentation of awards to Nebraska high school students
including Westinghouse Talent Search, Nebraska Talent
Search, and Nebraska Mathematics Association
- 8:00 Malben Lecture: The Forgotten Fundamentals of the Energy
Crisis, Dr. Albert A. Bartlett, University of Colorado,
Boulder, Olin Hall, Auditorium B

Nebraska Science Teachers Campout will be October 25th, 26th, and 27th (Teachers Convention) at Camp Maranatha near North Platte, Nebraska. Professional and relaxing activities for all science subjects and teaching levels. Plan now to attend.

September 1979

SCIENCE TEACHERS' ANNUAL FALL CAMP RETREAT

The Camp Retreat for Nebraska science teachers and their families, sponsored by the Science Teaching Section of the Academy, will be held on Thursday, Friday, and Saturday, October 25 - 27, 1979 at Maranatha Bible Camp just off I-80, near Maxwell. Luxurious camp facilities, good food, tours, fellowship, science for all, relaxation, beautiful Nebraska scenery, plus field experiences will put a zing into your science teaching.

You are urged to attend your local NSEA Teachers' Convention on Thursday and then arrive at the Retreat Thursday evening, or Friday a.m. Something new also has been added - in the form of an information "Swap Shop". Bring something for it -(about 40 copies)! Hurry and register before October 19, since registration after that date will cost you an additional \$5.00. For more information &/or registration forms, call the Academy Office 402 - 472 2644; or Dale Rathe. Lincoln, 473-0265; or James Landon, Seward, 643-2988.

December 1979

SCIENCE TEACHERS' ANNUAL FALL RETREAT

The Camp Retreat, sponsored by the Science Teaching Section of the Academy, was held October 25-to 27 at Maranatha Bible Camp near Maxwell in Lincoln County, Nebraska. There were eighty-eight enthusiastic participants. Beautiful weather, fine educational presentations, and warm fellowship made the Retreat a huge success. Activities included a sky watch, hiking, boating, bird banding, a hayrack ride, and viewing of films. There was also a "Swap Shop" of educational materials and ideas. A logo was adopted. The 1980 Camp Retreat will probably be at Halsey on October 23-25. Randy Hubbard of Grand Island

Northwest High School was elected Co-Chairman for a two-year period to replace Dale Rathe, - who had completed his term.

Dale Rathe and James Landon

September 1980

GOOD NEWS: G.N.A.T.S. BECOMES STATE CHAPTER

The Science Teaching Section of the Nebraska Academy of Sciences has become a State Chapter of the National Science Teachers Association (NSTA) and has changed its name to Greater Nebraska Association of Teachers of Science, or GNATS. It is now an Affiliated Society of the Academy instead of the Science Teaching Section and will continue to meet with the Academy at the Annual Meeting. The affiliation was acted upon at the Annual Business Meeting of the Academy on April 11, 1980.

The GNATS co-chairpersons, Jim Landon (Seward) and Randy Hubbard (Grand Island Northwest) attended the Council of Associated Groups (CAG) and NSTA meetings held in Dayton, Ohio in July. The presiding NSTA president, Dr. Don McCurdy, introduced our "bearded Smith Brothers" to the attending board members who voted unanimously to accept GNATS as the official Nebraska state chapter of teachers of science. Randy Hubbard reported that Dr. McCurdy was glad to see his state take an educational step forward.

GNATS FALL RETREAT - OCTOBER 23-25, 1980

The first official gathering as a State Chapter will be held Thursday evening through Saturday noon of the teachers convention weekend, October 23-25, 1980. The setting for the science teachers retreat will be at the beautiful 4-H facility at Halsey National Forest in north central Nebraska. An exceptionally good program is being planned with numerous topics, presentations, recreational activities, field trips, and displays for all grade levels.

December 1980

ANNUAL FALL SCIENCE TEACHERS' RETREAT

The Annual Fall Science Teachers' Retreat, sponsored by the Teaching Section of the Nebraska Academy of Sciences, was a tremendous success. The retreat was held at the Nebraska 4-H Camp in the Nebraska National Forest near Halsey, Nebraska on October 24 and 25. Nearly 130 persons interested in science education in Nebraska participated in the activity.

Several special programs highlighted this year's program. Walt Schmidt representing the National Science Teachers' Association, presented the Greater Nebraska Association of Teachers of Science (GNATS) with a plaque recognizing them as official affiliates of the N.S.T.A. The program also included a group of special people from the Kansas Association of Teachers of Science (KATS). They made a tremendous contribution of quality and quantity to this year's program offerings. Science teachers from Nebraska presented programs ranging from nature art to dinosaurs to edible plant cooking to boomerang flight. A song-filled, rollicking good time highlighted the hayrack ride and campfire.

This exciting program will be held next fall on October 23 & 24, once again at the Nebraska 4-H Camp at the National Forest near Halsey. Mark your calendars early. If you would be willing to share your expertise with your peers, please feel free to call Pat Geary, next year's coordinator, at 402-330 2727. (Pat Geary was elected Co-chairman of GNATS, replacing James Landon. Randy Hubbard will continue as the other Co-chairman for another year.)

March 1981

Professor Donald McCurdy, President of NSTA, has contributed immeasurably to science education both on the state and the national levels. Dr. McCurdy concludes his presidency of NSTA at the National Meeting in New York City this April and we will honor him at a recognition dinner in Lincoln to show our appreciation of his fine work.

All former students, professional associates, friends and their spouses/friends are invited to participate in this event. A reception line will begin at 6:00 p.m. followed by dinner at 6:30 p.m., Saturday, April 25, 1981, at the East Campus Union of the University of Nebraska-Lincoln. Dr. Gerald Skoog of Texas Tech University will serve as Master of Ceremonies.

RESERVATIONS must be made by Wednesday, April 15, 1981. Send a check (\$9.50 per person) to the Nebraska Academy of Sciences, c/o Don McCurdy Committee, 306 Morrill Hall 3G, 14th & U Streets, Lincoln, Nebraska 668588.

You may also wish, especially if you cannot attend, to congratulate Don by a personal note or letter submitted on white paper or your official letterhead. Please make sure the paper measures 8 1/2" x 11", as these letters will be bound without alteration and presented to Don that evening. Please send this correspondence to the Nebraska Academy of Sciences Office, at the above address before April 15, 1981.

May 1981

ANNUAL FALL SCIENCE TEACHERS' RETREAT AND P-E-P MEETING

The Science Teachers Section (Greater Nebraska Association of Teachers of Science GNATS) Annual Retreat will be held at the Nebraska 4-H Camp in the Nebraska National Forest near Halsey, Nebraska on Thursday evening, October 22, and will continue through Saturday, October 25. The Annual Fall Meeting of the Policy-Executive-Program, (P-E-P) Committee will be held all day Saturday, October 25, in connection with the GNATS program. All members of the Academy are invited to attend. Since lodging is somewhat limited, all members planning to attend the P-E-P meeting should arrange for rooms well in advance through the Academy office. The joint meeting of the two groups at Halsey in 1980 was very successful and we look forward again to another great meeting.

October 1981

MESSAGE FROM THE PRESIDENT

The Greater Nebraska Association of Teachers of Science (GNATS) have developed a dynamic organization in a relatively short period of time. They certainly deserve the support of all members of the Academy during this period when institutions of higher learning are training fewer and fewer persons interested in becoming science teachers.

Our P-E-P Committee met in conjunction with the GNATS group at their fall meeting at Halsey last year, and it was intended that we would do so again this year. Unfortunately, college and university calendars seem to be full on the weekend of October 25-31. We will therefore hold the fall P-E-P meeting, on October 24, at Hastings College; a date that seems to have fewer conflicts.

I hope the GNATS membership is understanding of the problem and that those members of the Academy who are able to attend the GNATS meeting at Halsey (any or all of October 29, 30, 31) will do so. GNATS deserves our support and you will, no doubt, find the fall program at Halsey very rewarding.

Carl Throckmorton

REGISTRATION G.N.A.T.S. FALL RETREAT OCTOBER 29-31, 1981
Halsey National Forest

GNATS Registration

Housing, 5 meals - \$35.00

Housing, 5 meals, (nonmember presenter, spouse, friend, or child) - \$27.50

Arrive Friday:

Registration, Housing, 4 meals - \$26.00

Nonmember presenter or nonmember, spouse, etc., housing, 4 meals - \$13.50

Fees LESS LODGING :

Registration, no meals - \$10.00

Registration AND meals - 26.50

PROGRAM HIGHLIGHTS

Friday, October 30

7:00 - 8:30 Breakfast - Orientation

8:45 - 9:45 SESSION #1

HOW TO GO BUGGY OVER INSECTS K-6

ENERGY SIMULATOR K-12

SMITHSONIAN AIR & SPACE MUSEUM K-12

FIELD TECHNIQUES IN ZOOLOGY 7-12

9:45 - 10:00 Break

10:00 - 11:00 SESSION #2

ZOOLOGY ENVIRONMENTS K-8

EXPANDING YOUR MICROCOMPUTER K-12

MODEL ROCKETRY K-12

ENERGY LAB - NEW EQUIPMENT

11:00 - 12:00 Session #3

WHAT'S HAPPENING ON THE NATIONAL SCENE IN SCIENCE ED. & NSTA

12:00 - 1:15 LUNCH/BUSINESS MEETING

1:30 - 3:00 SESSION #4

COLLECTION, PREPARATION, IDENTIFICATION OF VERTEBRATE FOSSILS

EDIBLE WILD PLANTS K-12

FOREST TOUR - Limited

MODEL AIRPLANES K-12

3:00 - 4:30 SESSION #5

FOSSILS - PART II

ORNITHOLOGY K-12

CANOE THE DISMAL

OUTDOOR EDUCATION - HIGH STYLE K-12

4:30 - 5:30 ENJOY ENVIRONMENTAL TIME

5:30 - 6:30 DINNER/VOTING SESSION

7:00 - 8:30 SCIENCE VAUDEVILLE - PUTTING FUN IN SCIENCE

8:30 CAMPFIRE/CAMARADERIE

Saturday, October 31

7:00 - 8:30 Breakfast

7:30 EARLY BIRD PHOTO HIKE, own camera

7:30 BIRD BANDING EXPERIENCES

8:45 - 9:45 SESSION #6

BOOMERANGS - DO THEY REALLY RETURN?

SCIENCE FAIRS K-12

NATURE OF ART K-6

9:45 - 10:00 BREAK

10:00 - 10:45 SESSION #7
SMITHSONIAN AIR & SPACE MUSEUM CURRENT TOPICS OF IMPORTANCE - A SYMPOSIUM
OUTDOOR EDUCATION - Repeat of Session #5
10:45 - 11:45 Pack up, etc.
11:45 - 12:45 Lunch, Announcements

December 1981

THE ACADEMY'S CENTENNIAL 1881-1981

There has been some evidence accumulating that the Nebraska Academy of Sciences had been in existence before it was formally organized in 1891 when the ANNUAL MEETINGS were established. The first conclusive evidence, however, was reported to the Academy Office by Professor Roscoe Hill, a Life Member of the Academy, earlier this Fall. Professor Hill, a member of the Entomology Department, UNL, has been doing research concerning Dr. Lawrence Bruner, an Entomologist in the late 1800's and the early part of the 1900's, who was a world authority on grasshoppers and other insects. One of Professor Bruner's relatives, who lived in California, loaned Professor Hill some letters that Professor Bruner wrote to his wife-to-be, Marcia Dowell of River Sioux, Iowa. A number of the letters referred to the monthly meetings of the "Nebraska Academy of Sciences" and on January 7, 1881, he wrote that he was "going down again next week to a meeting of the Nebraska Academy of Science," so actually there must have been meetings in 1880, if not earlier. A letter dated July 17, 1881, was written on the letterhead of "The Nebraska Academy of Sciences" and the following officers were listed: President - Prof. Samuel Aughey, First Vice President - Leavitt Burnham, Second Vice President - R. R. Livingston, Third Vice President - J.W. Small, Recording Secretary - J. T. Allan, Corresponding Secretary B.E.B. Kennedy, Librarian - Mrs. O.C. Dinsmoor, Curator - J. Budd. Prof. Samuel Aughey was from the University of Nebraska at Lincoln and was the first head of the Natural Science Department at the University when classes started in 1871; and also he was the first Director of the University Museum, which was established in June of 1871.

The First Vice President was the Land Commissioner of the Union Pacific Railroad Company, and other officers including J. Budd, were employed by the Union Pacific Railroad. The officers of the railroad were anxious to make Omaha the cultural center of the West, and encouraged the formation of various scientific, art, music, drama, literary organizations and even fraternal and civic societies, lodges, and associations. The Nebraska Academy of Sciences was housed from 1881 through the early 1880's, at least, in "rooms" in the Williams' Block at the corner of Dodge and North 15th Street, near the Union Pacific Building in Omaha. Prof. Aughey remained president in 1882 and the other officers (Except for J.W. Small, Third Vice President) were also re-elected, but Alf. D. Jones of Omaha was elected Treasurer, apparently taking the place of the Third Vice President. The Union Pacific issued passes to science teachers of various high schools, colleges, and universities so that they could attend the MONTHLY MEETINGS of the Academy in Omaha. Professor Lawrence Bruner wrote that the meetings were "all so interesting" that he "always desired to be present at them." He was, of course, one of the organizers of the Academy when it was established in Lincoln in 1891 and was elected President twice (1903-1904 and 1915-1916).

A revised history of the Academy is now being prepared by the Executive Director of the Academy, and this also will include the history of the Academy since 1955, when Dr. Raymond J. Pool, a past President of the Academy, wrote "A Capsule History of the Nebraska Academy of Sciences," which was published and distributed on April 22, at the 65th Annual Meeting of the Academy, when Prof. H.M. Cox was President.

C. B. Schultz, Executive Director

March 1982

GREATER NEBRASKA ASSOCIATION OF TEACHERS OF SCIENCE (GNATS)

Rumor has it that everyone had a "hooting" good time at the Fall Science Teachers' Retreat and that it was Fun and Sociable! But lest you be led to believe that it is only social, read on! Where else could you learn first-hand how to catch, kill, and mount insects; get information on the Smithsonian Air and Space Museum; skin and prepare a mammal for study; learn how to identify edible wild plants and then have a breakfast of delicious cattail pollen pancakes-hot off the griddle-served with butter and wild plum jam. There was also information on the geologic history of the Sandhills, science fairs, do boomerangs really return, computers, and many more educational features. Chuck Lang was elected the Junior co-chairman for 1982 and you can look forward to another enjoyable Retreat.

Professionally speaking, the Nebraska Academy of Sciences' Spring Meeting is for us too. On Friday, April 16, at the Wesleyan campus in Lincoln, there are three scheduled programs and an all-day workshop especially directed at the needs and interests of science teachers, K-12.

The planning session for the GNATS Fall Retreat is scheduled from 11:00-12:00 that morning. Anyone interested in having input in this discussion is welcome to attend. The site will remain at Halsey National Forest in the 4-u Camp, as the majority of members prefer central Nebraska as a gathering place. The dates are to be October 28-30 and opinions and new ideas are welcome.

Mark April 16 on your calendar, and make the spring meeting a professional day enhanced with the satisfaction of gaining fresh ideas, renewing old friendships (or sparking new ones), and sharing your insight with other teachers of science.

Ruth F. Woodland

August 1982

GREATER NEBRASKA ASSOCIATION OF TEACHERS OF SCIENCE (GNATS) FALL RETREAT

Bessey National Forest at Halsey
October 28, 29, 30, 1982

This series of workshops, presentations, and numerous motivational activities is open to all elementary and secondary educators interested in science education.

Activities on Thursday will begin with a canoe trip down the Dismal River, a steak fry, and a session called "Humor in the Classroom." Friday and Saturday's activities include concurrent sessions specifically designed for physical science, earth science, biological science, environmental science, and elementary science teachers.

One hour of college credit offered through the University of Nebraska-Lincoln Extension Division will be available this year.

Housing at the 4-H Camp features a cozy lodge, heated cabins, shower facilities and excellent meals.

For specific information and pre-registration forms please write to:

The Nebraska Academy of Sciences, Inc.
306 Morrill Hall, 14th & U Streets
Lincoln, NE 68588-0339

Pre-college Science and Mathematics Teaching

* There is a severe and growing shortage of mathematics and physical science teachers in the nation's secondary schools.

* In 1981, 43 states (of 45 responding) reported a shortage or a critical shortage of mathematics teachers.- For physics teachers, 42 states reported shortages or critical shortages.

* In 1981, 50 percent of teachers newly employed nationwide to teach secondary science and mathematics were actually uncertified to teach those subjects.

* Experienced science and mathematics teachers left classroom teaching for non-teaching jobs at a rate of 4 percent per year in the years 1980 and 1981. In addition 25 percent of those currently teaching have stated that they expect to leave teaching in the near future.

* From 1971 to 1980, student teachers in science and mathematics decreased in number--threefold in science and fourfold in mathematics--and only half of these have been entering the teaching profession.

December 1982

Greater Nebraska Association of Teachers of Science

FALL RETREAT - OCTOBER 28, 29, 30

Halsey 4-H Camp - Bessey National Forest

(GNATS met jointly with the Policy-Executive-Program Committee in the 4-H Lodge on October 30)

A total of 156 persons attended the annual fall science teachers conference held in late October. Concurrent sections were held in Biological Sciences, Earth Sciences, Physical Sciences and Elementary Science. The combined professional expertise of the 25 sectional presenters provided an extremely informative program for the people in attendance.

The conference provided an excellent array of interdisciplinary topics dealing with the flora, fauna and geology of the sandhills area. The addition of sectional presentations in the physical sciences was well attended by teachers of chemistry and physics. Hot air ballooning, canoe trips, wildlife photography hikes, forest tours, and numerous micro-computer sectionals provided something for everyone.

Of equal value for all in attendance was the opportunity for science teachers in all subject areas and grade levels to interact and discuss science education issues. The mixture of educators from all across Nebraska and from many of the colleges enhanced the exposure of the participants to new ideas and concepts.

Don Woodburn

March 1983

PROPOSED CHANGE IN THE CONSTITUTION AND BY-LAWS

(approved by the Policy-Executive-Program Committee on October 30, 1982, Halsey)
Proposed changes or additions are underlined.

ARTICLE VI

Section 1. The Academy shall be organized in sections and divisions in accordance with the fields of interest of its members, as determined by the Executive and Policy committees. Each Senior Member of the Academy may designate the section or sections in which he wishes to be enrolled. Senior members may also be enrolled as sponsors in the Collegiate Academy and in the Junior Academy.

Section 2. Organizations whose activities are planned and directed in close association with those of the Academy or of the American Association for the Advancement of Science may be designated as *Affiliated or Participating Societies*.

Section 3. There shall be one or more sections of the Collegiate Academy as authorized by the Executive and Policy committees.

Section 4. There shall be one or more sections of the Junior Academy as authorized by the Executive and Policy committees. Members of the Junior Academy shall be drawn from students enrolled in grades seven through twelve in public or non-public schools.

Section 5. There shall be at least two principal divisions of the Academy as authorized by the Executive and Policy Committees, including the Institute of Tertiary-Quaternary Studies (TER-QUA), concerned with interdisciplinary research relating changing environments; and the Greater Nebraska Association of Teachers of Science (GNATS), concerned with the teaching of science.

VOTE BELOW ON THE PROPOSED CHANGE:

I approve the proposed Constitutional change: _

I oppose the proposed Constitutional change:

Other changes in the Constitution and By-laws will be recommended by the Constitution and By-laws Committee at the business session of the 93rd Annual Meeting of the Academy. These changes will be approved or disapproved by mail vote or at the 93rd Annual Meeting.

Dwight D. Miller
Rosalind Morris
Mary H. Pritchard
T. Mylan Stout, Chairman
March 15, 1983

June 1983

PRESIDENT'S MESSAGE

I certainly am delighted to welcome you to the Academy's 103rd year. It has been a great pleasure for w to have observed the major surge of growth the Academy has experienced in the last several years. Of particular note among a number of excellent developments has been the progress of the Greater Nebraska Association of Teachers of Science (GNATS), the improvement of the Maiben Scientific Research Center and the increasing scholarly influence of the TRANSACTIONS, due both to the continuing support of the State of Nebraska through the Department of Education and the careful editing accomplished by dedicated people. These developments deserve our continued support as well as the current efforts regarding the Jones Prairie, a mixed grass prairie near Red Cloud, the Academy's support of the important activities of TER-OUA, our expanding scholarship and awards program, and our improving management and financial picture, due in a major way to our association with the Lincoln Foundation and other charitable groups.

The Nebraska Academy of Sciences is an essential resource which serves the citizens of the state of Nebraska by coordinating a variety of science-related activities and by encouraging excellence in both teaching and research. This is a most exciting and important time for the Academy. Consequently, we have a great need for an active and expanding membership. I thus certainly hope that you will persuade others to join you as members and that you will consider increasing your participation in the Academy as it grows and improves.

Best wishes! Ronald R. Weedon, 1983-1984

ANNUAL FALL SCIENCE TEACHERS' RETREAT AND P-E-P MEETING

The Science Teaching Division (Greater Nebraska Association of Teachers of Science - GNATS) Annual Retreat will be held at Eastern Nebraska's 4-H Center located at Schramm Park, 6 miles south of I-80 - Highway 30 (south of Gretna) on October 27, 28, and 29, 1983. This will be Thursday evening, Friday, and Saturday a.m. Plan now to participate and attend. Contact James Woodland or Chuck Lang, Omaha for more details.

The Annual Fall Meeting of the Policy-Executive-Program (P-E-P) Committee will meet all day Saturday, October 29, in connection with the GNATS program. All members of the Academy are invited to attend.

October 1983

This series of workshops, field trips, multi-media presentations, computer simulations and numerous motivational activities is open to all elementary and secondary educators interested in science education. Scheduled activities include concurrent sessions specifically designed for physical science, earth science, biological science, and elementary science teachers, plus scheduled family member activities. One hour of college credit may be offered through the University of Nebraska Extension Division, if 10 or more people request the credit. Housing at the 4-H Camp features a cozy lodge heated cabins with shower facilities, and excellent meals. Male and female housing only, so couples will be housed in separate dormitories. Camping is available nearby at Louisville. Please make camping reservations on your own.

SEND YOUR REGISTRATION TODAY!!

OPTIONAL EVENTS

1. Canoe (1st 20 people)--Thursday OR Friday
2. Project Adventure --Thursday (pm) OR Friday (am)
3. Field Trips--Henry Doorly Zoo (1st 40 people--teachers only--includes transportation) (am)
4. Fontenelle Forest (1st 40 people - teachers only--includes transportation)
5. Family Sensory Awareness

December 1983

THE OFFICIAL LOGO-SEAL FOR THE ACADEMY

The Academy now has an official seal. President Ronald Weedon appointed a committee to produce a logo at the Fall PEP meeting which was held in cooperation with the GNATS Retreat on October 29. The logo-seal which is produced **here is essentially what the committee proposed. It was revised slightly and all** the words were latinized. A preliminary copy was sent by mail to all P-E-P members involved, and the present logo-seal was approved. We hope you like it. It serves both. as an official seal for legal matters and contracts and also for a logo and will appear on both the envelopes and the letterheads as well as on various publications. At the bottom of the stationery is the statement, "Serving the heart of the Great Plains for more than a Century!"

GREATER NEBRASKA ASSOCIATION OF TEACHERS OF SCIENCE (GNATS)
(A Division of the Academy)

One hundred and fifty people registered to attend the GNATS (science teachers)Retreat at the Eastern Nebraska 4-H Center at Schramm State Park on October

27, 28, and 29. A number of professional sectional presenters provided an extremely informative program for those in attendance. Various interdisciplinary topics dealing with flora, fauna, and geology of the Lower Platte River area were covered. Various field trips through the woods and along the Platte River were taken. Programs for the physical sciences were attended by teachers of chemistry and physics.

Of equal value for all in attendance was the opportunity for science teachers in all subject areas and grade levels to interact and discuss science education issues. The mixture of educators from all across Nebraska and from many of the colleges enhanced the exposure of the participants to new ideas and concepts. The 1984 GNATS Fall Retreat will be held at Chadron State College on the last week of October. Plan now to participate.

Donald Woodburn

June 1984

ANNUAL FALL SCIENCE TEACHERS' RETREAT AND P-E-P MEETING

The Science Teaching Division (Greater Nebraska Association of Teachers of Science(GNATS) Annual Retreat will be held at Chadron State College, October 25, 26 and 27, 1984. This will be Thursday evening, Friday and Saturday A.M. Plan now to participate and attend. Contact James Woodland, Lincoln or Ruth Green, Bellevue for more details.

The Annual Fall Meeting of the Policy-Executive-Program(P-E-P) Committee will be all day Saturday, October 27, in connection with the GNATS program. All members of the Academy are invited to attend.

NOTE: A special Executive Committee Meeting with sack lunches)will be held at the Academy's Maiben Scientific Research Center, N.W. of Palmyra at NOON. Friday. JULY 13, 1984. Academy business and plans for a permanent research building at the Center will be discussed.

September 1984

ANNUAL FALL SCIENCE TEACHERS' RETREAT AND P-E-P MEETING

The science teachers (Greater Nebraska Association of Teachers of Science-GNATS) will hold their Annual Retreat at Chadron State College, October 25, 26 and 27, 1984, (Thursday evening, Friday and Saturday A.M.). Plan now to participate. Two sheets of information concerning registration and the program are enclosed with the Newsletter.

The Annual Fall Meeting of the Policy-Executive-Program(P-E-P) Committee will be held at 8:30 A.M., Saturday, October 27, in connection with the GNATS program. All members of the Academy desiring to participate are invited to attend.

GNATS FALL RETREAT SCHEDULE & ANNUAL P-E-P MEETING

THURSDAY. OCTOBER 25

6:00 - 10:00 P.M. CHECK IN AT BROOKS HALL - CHADRON STATE COLLEGE
8:00 P.M. NORM MARTIN: LOCAL FOLK SINGER - KLINE CAMPUS CENTER
9:00 P.M. HOSPITALITY I

FRIDAY, OCTOBER 26

8:00 - 9:00 A.M. BREAKFAST - ALL MEALS SERVED AT KLINE CAMPUS CENTER

9:00 - 10:00 PLANETARIUM SHOW
10:00 - 11:00 EARTH SCIENCE MUSEUM VISIT
11:00 - 12:00 PHIL CAREY: COMPUTERS AND HAM RADIOS
8:30 - 12:00 KAREN & CHARLES MESSENGER: Field Trip - ROCK&ROLLERS

A chance to visit the rock fields north of Chadron and do some rock hounding and collecting. Your personal opportunity to pursue the elusive Fairburn Agate, the enchanting chalcedony, perfection in petrified wood, jillions of jaspers, more agates, and a variety of other items as yet unknown (including a discussion on how all these rocks got here, where they fit in the local geology, and on-site identification of rocks in general).

12:00 -1:00 P.M. LUNCH/BUSINESS MEETING - NOMINATION OF GNATS OFFICERS
1:30 -2:30 JON OLSON: LOCAL HISTORY FROM FUR TRADE TO FRONTIER DAYS
2:30 -3:30 CHARLES HANSEN: LECTURE AND TOUR OF THE MUSEUM OF THE FUR TRADE
3:30 - 4:30 JEANIE MOBR: ART FROM THE OUTDOORS
1:30 -5:00 MYLAN STOUT, BERTRAND SCHULTZ & MESSENGERS: Field Trip - PINE RIDGE/NEBRASKA BADLANDS/TOADSTOOL PARK - The Geology of the area. This trip would introduce participants to the formations, rock types and structure that you see in Toadstool Park. Some paleobiologic observations will also encouraged based on evidence that can be seen on site

4:30 - 5:30 PAT MILLER: A slide/tape show which creates "MOODS, ESPECIALLY A LOVE OP THE OUTDOORS"
6:00 - 7:00 GNATS and P-E-P BANQUET /RECOGNITION OP OUTSTANDING SCIENCE TEACHERS
7:00 - 7:30 GNATS BUSINESS MEETING
7:30 - 9:00 HERB AND JAN CONN: JEWEL CAVE ADVENTURE
9:00 P.M. HOSPITALITY II and GATHERING OF P-E-P MEMBERS

SATURDAY. OCTOBER 27 JOINT P-E-P and GNATS Meeting

SUNRISE RUTH GREEN: BIRD HIKE
8:00 - 9:00 A.M. BREAKFAST
8:30 - 12:00 P-E-P BUSINESS MEETING with GNATS REPRESENTATIVES
8:30 - 11:30 JOHN ROGERS: COMPUTER DROP IN
9:00 - 10:00 PLANETARIUM SHOW
9:00 - 10:00 CHUCK LANG: OVERVIEW OF PHYSICS WORKSHOP
10:00 - 11:00 ELAINE CALLAWAY: THE MISSOURI CONSERVATION CURRICULUM SHOW
8:30 - 11:30 Field Trip - HISTORIC FORT ROBINSON
11:30 A.M. LUNCH

SATURDAY AFTERNOON OPTIONAL TRIPS TO AGATE SPRINGS FOSSIL QUARRIES and WIND CAVE for those who have their own transportation, Chadron College scientists Will lead the trips.

*GNATS BECAME A DIVISION OF THE NEBRASKA ACADEMY OF SCIENCES ON APRIL 13, 1984.

December 1984

GREATER NEBRASKA ASSOCIATION OF TEACHERS OF SCIENCE (GNATS)
(A DIVISION OF THE ACADEMY)

The GNATS Fall Retreat in Chadron was attended by 104 members and featured the unique tours of Toadstool Park plus the National Grassland Area and Agate Beds. It was the first time that the group housing and meals as well as the sessions were located on a college campus. Chadron State College hosted the event and everyone appreciated the organization they afforded GNATS during the Retreat. A number of laboratory sessions were concurrent with field exercises providing a wide array of topics. Officers elected for the 1984-85 term are:
President-elect: Julie Wells, Kearney

Secretary-Treasurer: Robert Reeder, Lincoln
New Board Members:
James McGahan, Grand Island
Mark Brogie, Laurel
Joanne Langabee, Papillion

Ruth Green of Bellevue has assumed the Presidency from Jim Woodland, and Don Woodburn of the State Department of Education remains on as an advisor. The continuing board members are Ron Crampton of Omaha, Ty Mayer of Chadron, and Mary K. Romjue of Franklin.

The 1985 Retreat will be held at Camp Comeca near Cozad on September 27-29.

September 1985

GNATS PROGRAM - BIOLOGY

Saturday, September 28

- 9:00-10:00 Assessment of Health Related Fitness (Dr. J. Donnelly)
A description of human performance in Laboratory Cardiovascular fitness, body composition, strength, flexibility, and risk assessment.
- 10:00-11:30 Basic Microbiology Techniques (Dr. Dick Ikenberry)
A lecture demonstration of basic lab techniques for micro-biological culturing and observation. Designed for teachers from K-12.
- 12:00- 1:00 LUNCH
- 1:30-2:30 Methods in Collection of Parasites (Ed Miller)
Techniques for the collection and preservation of parasites collected from lab specimens and available wildlife. Especially geared to tenth grade advanced biology.
- 2:30-4:00 Human Genetics and Bioethical Decision Making (Judy Johnson & Connie Nolte)
A sharing session based on materials from an NSF Institute attended by Judy and Connie this year.

Sunday, September 29

- 8:30-10:00 Bird Hike (Hark Brogie Ed Brogie)
An excellent time to see migratory birds bring your binoculars for this guided field trip.
- 10:00-12:00 Prairie Ecology (Ron Cisar)
A slide show and field trip of Nebraska ecology.

GNATS PROGRAM - EARTH SCIENCES

Saturday, September 28

- 9:00-10:00 Teaching Astronomy Using Invitations To Inquiry (Dr. Donn Carlson)

A series of hands-on activities and inquiry teaching strategies which will involve your students in astronomy.
- 10:00-11:30 Prehistoric Archeology (Cecil Williams)

Story of Plains Indians. A slide presentation based on personal research into Plains Indians with an emphasis on digs in Nebraska.

12:00-1:30 LUNCH

1:30-2:30 Mineral Samples (Ed Shafer)

A Cooper Award winning project which features world-wide mineral samples gathered by senior high students.

2:30-4:30 Using Fossil Fragments (George Carner)

A laboratory reconstruction of vertebrates from fossil fragments in Nebraska.

Sunday, September 29

9:00-10:00 American Indian Religion (Cecil Williams)

A discussion of the beliefs and worship of the Plains Indians.

11:00-12:00 The 3 R's of Conservation (Ann Danner)

A regional conservation award winner presentation of the basics of conservation awareness.

GNATS PROGRAM - K-12

Saturday, September 28

9:00-10:00 Playground Paleontology (Sue Kirby)

A Cooper Award winning project based on a successful playground paleontology unit for upper elementary grades.

10:00-12:00 Wildflowers and Grasses of Nebraska (Dr. Bob Lommasson)

Participants will enjoy a field trip and slide presentation by the author of the book Wildflowers of Nebraska.

2:30-1:30 LUNCH

1:30- 3:30 Project Wild (Paul Horton)

An introduction to a K-12 environmental education program, to illustrate how this curriculum can be adapted for your school. Participants will receive sample lesson plans from this project.

3:30- 4:30 Show and Tell Box (Cecil Williams)

Artifacts collected from a recent "Pawnee Dig" will be displayed and discussed.

SUNDAY, September 29

9:00-12:00 A Flavor of Microcomputer Interfacing (John Rogers)

Software and hardware for laboratory use of microcomputers.

GNATS PROGRAM - PHYSICAL SCIENCES

Saturday, September 28

9:00-10:00 Electricity and Power Lines (Jay Franklin)

A representative of MAPP (Mid-Continent Area Power Pool) Coordination Center will conduct demonstrations which simulate conditions which might be encountered under high voltage lines. Safety practices, radio and television interference, effects on farming operations, and biological effect research on people and animals in electric fields are areas that will be touched on during this session.

- 10:00-11:00 Laser Optics (Dr. Carl Throckmorton or Dr. Clyde Sachtleben)
A series of demonstrations for schools using conventional laser equipment.
- 11:00-12:00 Compasses and Transits/Outdoor Education (Dr. Roger L. Carlson)
A field experience using basic earth science equipment.
- 12:00- 1:30 LUNCH
- 1:30- 3:00 Physics Teachers Make and Take Demo Workshop (Dr. Chuck Lang)
Laboratory session featuring simple equipment to facilitate basics physics concepts.
- 3:00- 4:30 Physics Update (Dr. Chuck Lang, John Rogers, and JoAnne Langabee)
All the latest information in the field of physics.

Sunday, September 29

- 9:00-10:00 Micro Electronics Today (John McNeilly)
Highlights from "NSTA Industry Honors Workshop." John will discuss minicourses, will provide demonstrations, experiments, and handouts dealing with micro electronics.
- 10:00-11:00 More About Laser Physics (JoAnne Langabee)
Highlights from "NSTA Industry Honors Workshop." JoAnne will discuss types of lasers, how lasers are being used today, and future uses of lasers.
- 11:00-12:00 Chemistry Demonstrations (Julie Larson)
Nifty ideas for use in high school chemistry classes.

ACADEMY OFFICE SPACE

The UN-L Chancellor's Office has assigned rooms 308 and 308A to the Academy. These rooms are now being renovated. They are adjacent and actually connected with the present Academy Office. In the 1960's and early 1970's, rooms 308 and 308A had been used by the Academy for editing and for the Visiting Scientists' Program. This space will again be used for editing of the various Academy publications and for office space for the Executive Director, TER-OUA, and GNATS.

This move will provide space in the present office 306 to install a new computer and word processor which the Directors (Eloise R. and Richard W. Agee) of the Rogers Foundation so generously provided funds to purchase. The additional space will help solve many of the problems the Academy has had to face since the splendid space in Bessey Hall was lost in early 1984. Bessey Hall has now been renovated and is occupied by the Geology Department, Geology Library, and the Anthropology Department.

December 1985

GREATER NEBRASKA ASSOCIATION OF TEACHERS OF SCIENCE (GNATS) (A DIVISION of the ACADEMY}

The GNATS Fall Retreat at Camp Comeca near Cozad was attended by 97 members who were enthusiastic about the continued good presentations and participation.

Officers elected for the 1985-1986 term are: President-elect, ED BROGIE of Laurel; Two-year Board Members, JOHN ROGERS, E.S.U. #3, Omaha; JIM RYNEARSON, Johnson-Brock; and KIM TIMPERLEY, Osmond. JULIE LARSEN assumed the Presidency from Ruth Green, and continuing Board Members are JAMES MCGAHAN, Grand Island; MARK BROGIE, Laurel; and JOANNE LANGABEE, Papillion. ROBERT REEDER also continues as Secretary-Treasurer. DON WOODBURN of the State Department of Education remains on the

Board as Advisor.

The 1986 meeting will be held at Halsey 4-H Camp on October 24-26.

December 1986

ANNUAL FALL SCIENCE TEACHERS RETREAT AND P-E-P MEETING

The science teachers (Greater Nebraska Association of Teachers of Science-GNATS) held their Annual Retreat at the 4-H Camp, Bessey National Forest, near Halsey on October 23, 24, 25, 1986. An exceptionally good program was arranged. Over 100 registered and participated in this year's Retreat. Larry Duff, former lawyer, and now a science teacher in Omaha, was the guest speaker. Ed M. Brogie, Laurel Public School and Mary K. Romjue, Franklin Public School are Co-chairpersons for GNATS, and Joanne Langabee is Secretary-Treasurer, from Papillion, for the 1986-1987 meetings.

The Annual Fall Meeting of the Policy-Executive-Program (PEP) Committee was held at 9:30 a.m. on Saturday, October 25 at the Main Lodge of the 4-H Camp at Halsey, in conjunction with the GNATS program. Plans for the future of the Academy were discussed and acted on during the meeting, and plans for the 1987 Annual Meeting at Nebraska Wesleyan University on April 10-11 were confirmed.

March 1987

NEWSY ITEMS:

1. The Academy and the Nebraska State Department of Education are cooperating on offering a T.E.K. (Technology, Education and Kids) workshop this summer for Nebraska high school students.
2. If anyone is interested in the Executive Directorship of the Nebraska Academy of Sciences, or knows of a person who might be, please contact the Academy Office, or Academy President Donald E. Shult, UNO.
3. GNATS fall meeting is October 29-31, 1987, at 4-H Camp, Gretna.
4. P-E-P fall meeting, October 31, 1987 at 4-H Camp, Gretna.
5. President-elect candidates for 1987-88 are Dr. Monty Fickel, Chadron State College, and Dr. John Hertner, Kearney State College.
6. GNATS is bidding for a regional NSTA (National State Teachers Association) convention in Omaha for the fall of 1990.
7. A Junior Academy flyer is being developed by Mary K. Romjue and Ed Brogie. The Academy brochure is being revised. If you have any suggestions, please contact the Academy Office.
8. Academy representatives appeared before the Legislative Budget Committee for financial support for the continued publication of the TRANSACTIONS of the Academy by the State Department of Education.
9. This is the time to actively seek a summer NSF institute.
10. Science Olympiads are being conducted in the Lincoln Public Schools under the direction of Dr. Robert Reeder. The tournament will be April 25 for junior high school students and is a combination of competitive events which puts together the areas of knowledge and science processes and technology.

September 1987

1987 ANNUAL GNATS FALL RETREAT

The 1987 Fall Retreat of the Greater Nebraska Association of Teachers of Science (GNATS) will be held at the Eastern Nebraska 4-H Camp southeast of Gretna on October 29-31, 1987 (Thurs. night, Friday and Saturday) as announced in the Program of the 97th Annual Meeting of the Academy of April 10. (See enclosed yellow sheets for program/calendar of events)

POLICY-EXECUTIVE-PROGRAM (P-E-P) FALL MEETING

The annual FALL P-E-P Committee will meet, as has been the custom for years, the last day of the GNATS Fall Retreat. The meeting will be held at the 4-H Camp at 9:30 A.M. On Saturday, October 31, in cooperation with GNATS. All Policy, Executive, and Program committee members should plan to attend since there is much Academy business to be transacted and plans for the Academy's future to be considered.

January 1988

1987 ANNUAL GNATS FALL RETREAT

The fall retreat of the Greater Nebraska Teachers of Science was held at the Eastern Nebraska 4-H Camp southeast of Gretna in Schramm Park, October 29-31. The registration of 197 participants was an all time record and the meeting was very successful. The 1988 Fall Retreat will be held at the same location.

POLICY-EXECUTIVE-PROGRAM (P-E-P) FALL MEETING

The annual fall P-E-P Committee meeting was held October 31 in cooperation with GNATS at the 4-H Camp. The attendance was excellent and plans for the future of the Academy were discussed at length. Some of the problems concerned with membership and changes in the Constitution and Bylaws were referred to the Long Range Planning Committee for further study and recommendation. The latter committee met in Omaha (January 15) and the resulting findings will be considered by the Executive Committee at its February 26 meeting in Lincoln at 2:00 P.M. at the UNL EAST UNION.

March 1988

SCIENCE EDUCATORS LEADERSHIP CONFERENCE

The National Science Teachers Association sponsored a "Science Educators Leadership Conference" which met in Denver, Colorado on March 11, 12, 13. The following Academy members participated: President Dale Rathe of Lincoln; President-elect John Hertner of Kearney State College; Chairman of GNATS Mary Romjue (Naponee & Lincoln, UNL); Co-chairman of GNATS, James McGahan (NW High School, Grand Island); high school teacher Judy Johnson of Kearney; and Academy Corresponding Secretary James Woodland (Nebraska Department of Education and Secretary of the Junior Academy) Omaha. The latter four are all active in GNATS. The six attendees were most enthusiastic about the meeting and felt that it was very worthwhile.

November/December 1988

G N A T S

The GNATS Annual Fall Retreat on October 27, 28, 29, 1988 at the Eastern Nebraska

4-H Camp SE of Gretna was a huge success. Approximately 325 public school teachers registered and found it to be a most rewarding experience.

GNATS OFFICERS ENDORSE the Proposed Academy CONSTITUTIONAL CHANGES: Mrs. Mary Romjue reports that the proposals are seen as most beneficial by the GNATS Board Members that she had had a chance to poll. GNATS members are encouraged to support the adoption.

January 1990

SUMMARY OF POLICY-EXECUTIVE-PROGRAM COMMITTEE MEETING
FRIDAY, DECEMBER 1, 1989

(Excerpt)

GNATS had a very successful fall meeting October 26-28 at the 4-H Camp at Halsey with more than 200 attending. There will be a spring meeting for the first time in 1990. Their very successful GNATS Newsletter is published four times per year and includes many good articles of value to all science teachers in each issue. If you would like to receive the GNATS Newsletter, indicate your interest when you pay your Academy dues.

GNATS FALL MEETING 1989

GNATS also had a very successful meeting on October 26-28, 1989 at the 4-H Camp at Halsey, Nebraska. There were around 200 registrants by the end of the sessions with this being the highest attendance ever at Halsey. There were many computer workshops as well as concurrent sessions available in each content area and at all levels from elementary to post secondary.

The 1990 GNATS meeting will be held at Camp Calvin Crest near Fremont, Thursday noon, October 25 through Saturday noon, October 27.

July 1990

NEWS FROM NATS

The Nebraska Association of Teachers of Science held a general meeting at the 1990 Nebraska Academy of Science spring meeting. The purpose of meeting was to vote on an amendment to the by-laws to change the name of the organization. This amendment was approved, and the word "Greater" will henceforth be omitted from the name of the association.

The NATS Fall Conference will be held at Camp Calvin Crest near Fremont on October 25-27, 1990. The theme for the conference is "Science for All." Dr. Hans Anderson, immediate past-president of the National Science Teachers Association, will be a guest. He will speak at the Friday evening dinner and will also present a session entitled "Pride Inside." Sessions are planned for elementary through secondary, in all subject areas, and will include sessions on safety and science for handicapped students.

January 1991

NATS FALL CONFERENCE

The NATS Fall Conference was held October 25-27, 1990 at Camp Calvin Crest near Fremont, NE. The Conference, with an expanded format that included sessions and workshops in all areas of science education, was attended by the largest number of science educators ever. In addition to the highly professional and stimulating presentations by some of the outstanding teachers and educators in Nebraska, Dr. Hans Anderson, retiring president of NSTA, and Janet Gerking, District X director for NSTA, provided valuable insights and perspectives. The overwhelming success of the conference

was evidenced by the conference evaluation forms. Comments included: "I want to commend the NATS board for a great Fall Conference. I was impressed with the number and quality of the presentations and above all the facilities." "Best conference that I have attended yet in Nebraska! Keep up the good work." "I rank your convention among the best I have attended" (Dr. Anderson).

Judy Johnson, Outgoing President

CONGRATULATIONS, CLAIRE OSWALD!!

Congratulations are due Prof. Claire M. Oswald, long-term, faithful member and former president of the Nebraska Academy, who is just completing a term as President of the National Association of Academies of Science. Claire has been the Nebraska delegate to NAAS since 1978. He has served on the NAAS Board for the past eight years and held the offices of treasurer and secretary prior to becoming president. In recognition of his fine service, he was given the 1990 Distinguished Service Award of NAAS. We're proud that you are a member of the Nebraska Academy, Claire!

December 1991

[Editor's Note: A portion of Dr. Haskins' Message as President of the Academy]

In his President's Message in the January 1991 Newsletter, Dr. Jack Swanson mentioned the rather precarious financial condition of the Academy. Unfortunately, I cannot report to you that there has been any great improvement in this situation. I am pleased to tell you that one item of substantial and unanticipated 1990 expense, the cost of spraying musk thistles on the C. Bertrand and Marian Othmer Schultz Prairie, was paid for by Prof. and Mrs. Schultz. The Academy was also billed for the 1990 real-estate taxes on the Prairie and the Schultzes took care of this expense. The Academy continues to benefit from the generous financial support and the dedication of Prof. and Mrs. Schultz. We are most grateful to them for this support and dedication. I might add that as this is written Mrs. Schultz is a patient at 123 Milder Manor where she is recuperating from recent major surgery. We all join in hoping that she will have a speedy and complete recovery.

As many of you know, in recent months Dr. Schultz has had various health problems that have made it difficult for him to accomplish some of the duties that go with the Executive Director's position. Recognizing this fact the Long Range Planning Committee recommended that Dr. Schultz become Director of Development for the Academy, and that responsibility for the day-to-day operation of the Academy be shifted, on an interim basis, to Drs. Robert Johnston, Rosalind Morris, and me, working as a group with Office Manager, Valerie Blake. These changes were approved by the Policy-Executive-Program Committee at its meeting on October 26 and are now in effect. We hope that the changes will help Dr. Schultz regain his strength and vigor, and also that in his new role he will be able to focus his considerable talents on the critical area of fund-raising for the Academy.

On Friday, October 25, I attended the NATS Fall Conference at Camp Calvin Crest. Jim Rynearson, current NATS President, reports briefly on this excellent conference in another part of this newsletter. I learned from each of the six sessions that I attended. The vitality and enthusiasm of the NATS members are really impressive. We are fortunate that this division is part of the Academy.

If any of you have comments or suggestions regarding the activities of the Academy please send them to the office, 302 Morrill Hall, 14th and U Streets, Lincoln, NE 68588-0339. You may be sure that your officers will give serious consideration to such correspondence.

F. A. Haskins, 1991-92 President

NATS FALL CONFERENCE

The Nebraska Association of Teachers of Science (NATS) held their fall Conference October 24-26 at Camp Calvin Crest near Fremont. Over 340 teachers attended the convention that was highlighted by programs such as the Weird Scientists; Dr. Robert Manley; Wendell Mohling, the NSTA President; free raffles; and music by the Smith Family Bluegrass Band. Science teachers who attended this conference had over 75 programs to choose from in the areas of elementary, biology, physics, chemistry, earth sciences, and special topics.

The growth of the NATS organization was evident as about 30% of the teachers in attendance were first-time members. If you would like to receive information about next year's convention and keep up-to-date with what is happening in science education through our NATS newsletter, write to me for membership information (only \$15.00 per year and you automatically become a member of the Nebraska Academy of Sciences as well).

Jim Rynearson, NATS President

Note: The final typing and set-up for printing of this newsletter was done by Dr David Sutherland. Dave's help is gratefully acknowledged.

February 1992

NATS NEWS

The Nebraska Association of Teachers of Science (NATS) board meeting held February 1 at Morrill Hall proved to be a very productive one. Evaluations of the fall conference were discussed along with ideas on how this year's conference could be improved. Marla Smith reported on the NATS-ESU drive-in conference that was to be held on February 18 at Scottsbluff Nebraska. NATS agreed to set up the science sessions for this day long conference with presenters from our organization.

The committee heads for the 1992 NATS Fall Convention were assigned and the program format was discussed. I would like to challenge you to become involved in this year's conference by working on one of the committees. If we all work together we can make this NATS convention the best one ever.

If you would like to become a NATS member please fill out the membership form and mail it along with a check to: Ed Schafer, 5548 Pacific, Omaha, NE 68106.

Jim Rynearson
NATS President

December 1992

[Excerpted from Academy President's Message]

The Policy-Executive-Program Committee held its Fall meeting as guests of NATS (Nebraska Association of Teachers of Science) at Camp Calvin Crest on Saturday, October 31 amid 450 enthusiastic area science teachers. NATS President Mark Brogie spoke to us regarding the logistical difficulties of maintaining contact with teachers in western Nebraska and the general difficulty of teachers getting time off to attend conferences (only one or two days per year for professional development in many cases). Ed Brogie raised deep concerns about the distribution of types of skills across the ranks of professional instruction from grade school through collegiate levels. Ed is seeking faculty at the university level trained in research to share their expertise regarding research methods in order to strengthen these skills among Nebraska science teachers,

perhaps through workshops. The present existence of a Senior - Junior division of the Nebraska Academy of Sciences seems like an ideal vehicle for such collaboration. It has always been my contention that dedicated teachers using their own ingenuity and working at the local level can have a greater impact sooner than we can expect change to trickle down from the top. To that end it is important that we activate a database of Nebraska senior faculty willing to provide advice and workshops in which faculty go to the teachers and students and share this form of expertise to enrich students and their teachers. Some already do this on an informal basis with local area science teachers. I urge all Senior Division members to consider adding your name as a volunteer by contacting Valerie Blake in the Nebraska Academy of Sciences Office.

Past president's reports in the newsletter have made it clear that the Academy has run close to the wire financially and still does as of this report. This observation is particularly important because the academy now has the responsibility of maintaining the Schultz Prairie and the newly acquired home and 32 acre grounds donated to the Academy by Dr. Bertrand and Marian Schultz. The following two items are therefore quite timely.

Claire Oswald and the Long Range Planning Committee are near completion of an updated brochure and a prospectus containing information which should help us attract outside financial support.

In early December two endowment funds were established. One is to support the Schultz Prairie and the other is to provide funds to maintain the 32 acre estate and home of Bertrand and Marian Schultz which Dr. Schultz has given to the Academy as a gift. Dr. Schultz has made the first contributions to each. With these incentives it is time to develop a plan to approach major industries in the state of Nebraska and seek additional contributions which would become, in time, an adequate source of earnings to fund the work of the Academy in perpetuity.

Francis Haskins, Robert Johnston and Rosalind Morris have again agreed to continue as co-directors of the Academy on a one year basis to help maintain the Academy and aid Valerie Blake in overseeing daily activities. Their efforts are much appreciated and will help insure the continuity of the Academy's programs.

James E. Platz, President 1992-93

October 1993

PRESIDENT'S MESSAGE "At the Crossroads"

As this newsletter is sent across the state, the Academy faces its greatest challenge in the recent past. The signposts indicating this crossroads were evident for a long time, but for a variety of reasons they were not heeded. And now we stand ... here at the crossroads ... no longer able to ignore what is painfully obvious. At this crossroads are two paths. The first is the status quo, which no longer really exists and may lead to a dead-end. The second is marked "change," for which there is no road map. Those of us who have been involved with the recent PEP meeting or the Executive Board are now aware of some of the elements of our challenge. For those of you who have not been at these meetings, the following provides an overview.

Our long-time former Executive Director and current Director of Development, Dr. C. Bertrand Schultz, is now very involved with the establishment of a research arboretum at Hilltop, his residence for many years. The Academy has been deeded this property by the Schultz family, and Dr. Schultz is in the process of establishing a trust fund to provide for the long-term development and maintenance of this facility. Dr. Schultz and an Academy Arboretum committee have been meeting with professional consulting firms

to establish the vision for this facility.

Of immediate concern is that the Academy continues to operate with financial difficulty, no permanent Executive Director, and no goals beyond the maintenance of an annual meeting and the publication of the Transactions. Further, institutional representatives report problems in recruiting new members who question, "Why should I join the Academy?" Affiliates like the Nebraska Association of Teachers of Science (NATS) question what the Academy is all about and what good their membership in the Senior Academy brings. One bright spot is the expansion of the Junior Academy activities and the establishment of several new scholarships. As the needs for a reasonable operating budget, a permanent Executive Director, and a long-term financial development plan continue, the Academy may have a difficult time in justifying its existence to the citizens of Nebraska.

If taken, the first path marked "status quo" will result in the demise of the Nebraska Academy of Sciences. First of all, the old paradigm no longer exists, because the days of relying on someone else to manage the Academy business and provide a safety net are gone. Second, our excellent and highly capable interim Executive Co-Directors wish to turn over their duties to a permanent counterpart, although they have served nobly for a number of years on successive one-year appointments. Lastly, as the number of students selecting coursework in science and mathematics dwindles, many organizations, with missions similar to the Academy, are turning their attention to increasing the quality of science and mathematics instruction and research opportunities for students.

The other path is extremely uncertain. There are no rules, no limits from the past, and no security either. Here lies the arduous process of self-examination as the Academy determines if it deserves to continue to exist. Mere observations about the high quality of the Transactions and the opportunity the Annual Meeting provides for student presentations are not enough. We must address the question, WHAT CAN THE ACADEMY PROVIDE TO THE CITIZENS OF NEBRASKA?

To facilitate this introspective process, the PEP (Policy-Executive-Program) Committee has recently voted to establish a Strategic Planning Committee that will, over the next several months, complement the work of the Long-Range Planning Committee by examining immediate goals and outcomes for the Academy, and the necessary budgetary support for existing and new programs. These goals will necessarily include plans to expand the existing high quality of the Annual Meeting, increase the Junior Academy support, provide benefits of membership, and place the Academy on a paying basis for many currently volunteer tasks.

In an effort to contribute to the new Nebraska Math & Science Initiative funded by the National Science Foundation for ten million dollars, some of these goals and outcomes will be directed towards students and their teachers. In addition, the PEP Committee has also voted to establish, on an interim basis pending permanent approval at the Annual Meeting, a new section for the Annual Meeting. This section, to be entitled "The Teaching of Science & Mathematics," will focus on innovative techniques to promote active learning in the kindergarten through college classroom, as well as classroom research.

Along the lines of dealing with the Academy's financial troubles, the PEP Committee has also voted to require a very modest increase in registration fees, as well as to require that completed registration forms with payment accompanying the Abstract Submission Forms for the Annual Meeting.

Dr. Lois Veath
President, Nebraska Academy of Sciences

The annual NATS Fall Conference will be held October 28-30 at Camp Calvin Crest near Fremont. This year's schedule includes well over 100 workshops, sessions, and elementary mini-sessions in all the major science disciplines. A choice of nine workshops on Thursday afternoon will start off the conference. Special activities include Thursday evening's "Voyager Program" with Steve Garner of the Kansas Cosmosphere and Space Center and Friday evening's "Earth Music" by Ron Cisar.

Anyone who is interested in obtaining a wealth of information and activities for use in the classroom should definitely attend this event. In addition to a wonderful in service, you will meet some amazing and talented individuals. Make plans now to attend.

Nebraska Math & Science Initiative
Working to Strengthen Education

Most NATS members probably know about the Nebraska Math and Science Initiative, but other NAS members may not be aware of this worthy and ambitious program. Appreciation is expressed to Meg Lauerman, Communications Director for the Initiative, for supplying the following information.

In 1991 the Nebraska Mathematics and Science Coalition and the University of Nebraska were successful in obtaining major funding for projects to improve science and mathematics education for all students in kindergarten through high school. This statewide systemic initiative, funded by the National Science Foundation, is called the Nebraska Math & Science Initiative.

During this decade, the U.S. economy is expected to create more than 21 million new jobs. Most of these jobs will require the use of mathematics as well as education beyond high school. In order to be able to compete successfully for the best jobs, students will need to be well-prepared in the areas of science, mathematics and technology.

Now more than ever, skills in mathematics, science and related technologies are critical to success, both for individuals learning in a complex world and for our nation's economy.

The Nebraska Math & Science Initiative is working to strengthen education in the areas of mathematics and science for all students in public elementary and secondary grades in Nebraska through the following programs:

The K-12 Teacher and Curriculum Project

Eighty-eight teachers from 11 school districts or consortia of school districts have been meeting during the summer months to explore new ways to teach science and math. These "Lead Teachers" have been working out strategies to promote hands-on exploration and problem-solving among their students. What they take back to their own classrooms will be shared with other teachers during two-week workshops conducted by the Lead Teachers for other educators across the state.

Math Vantage

This series of video tapes and companion print materials is being produced in response to a need to keep middle-level students involved in the study of mathematics. Math Vantage is a high-energy series that engages the imagination and enthusiasm of students, leading them through an interactive exploration of the key concepts presented in each unit.

The first Math Vantage unit is currently available to all schools in the state

of Nebraska through the Nebraska Department of Education and Educational Service Units.

The five Math Vantage units are: patterns, spatial sense, data analysis, proportional reasoning and number theory.

Practical Pre-college Mathematics

This television course for high school seniors airs live three times each week. Students in 30 locations across Nebraska watch via satellite as teacher Dan Hohensee demonstrates the application of mathematical concepts in a visual manner. Then students can talk over math problems via two-way audio during the live broadcasts. During one class session Hohensee dropped watermelons, eggs, strawberries and apples off the top of the Nebraska ETV building to demonstrate the use of a quadratic function to predict the gravitational effect on objects of different sizes. In another class session, students saw Nebraska Game and Parks officials using a mathematical formula to count species in the wild. Approximately 300 high school seniors are Practical Pre-College Mathematics students this semester.

Computer Network Development

The Nebraska Math & Science Initiative is involved in the development of the Internet computer network. Through Internet, students and teachers can tap into data bases at universities and governmental agencies for current information on timely topics via classroom computers. If a student in Broken Bow needs information to complete a study on space exploration, for example, she/he can communicate instantaneously with NASA's SpaceLink using a classroom computer and the Internet.

Science Focus to be Developed

The Nebraska Math & Science Initiative is working out ways to further develop science education for K-12 students. Being developed are plans for community science programs and regional coalitions to support science education.

For more information, contact the Nebraska Math & Science Initiative, P.O. Box 880326, Lincoln, NE 68588-0326. Phone: (402) 472-8965.

October 1994

NATS Fall Conference

The Annual Fall Conference of NATS will again be held at Camp Calvin Crest near Fremont. A full schedule of interesting workshops and other presentations will begin at 1:30 p.m. Thursday, October 27 and extend until noon Saturday, October 29. NATS Fall Conferences are special. If you have not attended one, you might be surprised at the breadth and depth of topics presented there, . and at the enthusiasm of the participants. For more information, contact Valerie Blake at the Academy office (phone 402-472-2644.

Congratulations to Walter Mientka
And his winning U. S. Mathematics Team

Six American high-school students, who were coached by Walter E. Mientka, Professor of Mathematics at the University of Nebraska-Lincoln and a dedicated Academy member, earned perfect scores at the International Mathematical Olympiad held in Hong Kong in July. Professor Mientka administrative assistant for these international competitions and has coordinated them from UNL since 1975. Each country submits a proposed exam question and, according to Professor Mientka, there is much debate at the international level before the final selections are made. Test answers must be justified to two experts.

The six students, who live in Illinois, Maryland, Massachusetts, and New York, competed with 360 students from 69 other countries in a nine-hour examination, which included algebra, geometry, and numbers theory. They are the first to earn a perfect team score in the 35-year history of the Olympiad. Recognition of the U.S. team's outstanding achievement has come from President Bill Clinton and the Secretary of Education, as well as several prominent newspapers and newsmagazines.

Animals Alive!

Dennis Holley, Academy member and science teacher at Shelton, Nebraska, has written a book entitled *Animals Alive! An Ecological Guide to Live Animal Activities*. The book is a resource for designing and conducting studies of live animals in the classroom or at home. The use of inexpensive, accessible animals is emphasized. Copies of the book may be ordered from Roberts Rinehart Publishers, P.O. Box 666, Niwot, CO 80544, for \$29.95 plus \$3.50 shipping. For further information write to Dennis Holley, P.O. Box 143, Shelton, NE 68876.

March 1995

Dr. C. Bertrand Schultz
1908-1995

On the morning of March 7, 1995, the long, exceptionally interesting, and extremely productive life of Dr. C. Bertrand Schultz came to an end. Dr. Schultz served as Executive Director of the Academy for many years, and he, more than any other individual, is responsible for the Academy's current pattern of organization and activity. He and his wife, Marian Othmer Schultz, provided financial support as well as leadership for the Academy's programs. In 1989 they donated the Schultz Prairie in Webster County to the Academy, and following Marian's death in 1992, Dr. Schultz deeded the family home and acreage in north Lincoln to the Academy. The Academy will be forever indebted to the Schultzes for their leadership and generosity.

Dr. Schultz is survived by two daughters and their families, Tranda and William Fischelis and their daughter, Marnie, of Philadelphia, Pennsylvania; and Donna and Col. Charles Wilcox and their daughter, Amanda, of Papillion, Nebraska.

A memorial service was held at Trinity United Methodist Church in Lincoln on March 11, 1995. Memorial contributions may be sent to: Trinity United Methodist Church, 1345 S. 16th St., Lincoln, NE 68502; Alzheimer's Association, 7101 Newport Avenue, Omaha, NE 68152; or Homestead Girl Scout Council, 1701 S. 17th St., Lincoln, NE 68502. Plans are also in progress to plant a tree on the Academy's Hilltop Road property in memory of Dr. Schultz. Contributions for this purpose may be sent to the Academy office and should be designated for the memorial tree.

Proposed Bylaws Amendment Concerning Dues

For some months there has been discussion about (1) the urgent need to increase the Academy's annual dues, and (2) allocation of the dues that are collected. The first of these items requires amendment of the Academy's Bylaws, since that is where the dues structure is specified. The second does not require amendment of the Bylaws, but it is important that members know how the Executive Committee would allocate dues under the new structure.

In November, 1994, an ad hoc group consisting of George Coleman, Francis Haskins, Bob Johnston, Lois Mayo, Rosalind Morris, and Jim Woodland developed the following proposal: (1) Increase the annual dues for Regular Members by \$5, from \$15 to \$20. (2) Assuming approval of the dues increase by the membership, for members who are K-12 teachers allocate \$10 of the dues to the Academy, \$5 to NATS, and \$5 to the Junior Academy

(NJAS). Both proposals were unanimously approved by the Academy's Executive Committee on January 13, 1995 and by the NATS Board on February 3, 1995.

The last increase in Academy dues was effective in 1989. Since that time there have been increases in all aspects of operating expenses for the Academy, and our dues are no longer adequate to cover these expenses. In many states, the state academy of sciences and the science teachers' organization are two completely separate organizations, and the annual cost of membership in both totals about \$50. In Nebraska, membership in NATS includes membership in the Academy, and even with the increase to \$20, our annual dues will still be among the lowest in the country.

To be adopted, the dues increase requires the following changes in Article III of the Bylaws:

Annual dues

Class of membership	Present	Proposed
Regular	\$15	\$20
Collegiate	3	5
Out-of-state collegiate	15	20
Sustaining	20-50	25-50

No change is proposed for other classes of membership listed in Article III. Collegiate members are defined in Article III, Section 3 of the Constitution as "students in undergraduate and graduate colleges who are interested in science, who have been duly elected to membership in the Collegiate Academy, and who pay annual dues."

Currently none of the \$15 annual dues is specifically allocated to NATS or NJAS. Assuming the membership includes about 600 K-12 teachers, the new dues allocation would result in about \$6,000 of the dues paid by these members going to the overall Academy, \$3,000 to NATS, and \$3,000 to NJAS. The advantage of this distribution would be that \$3,000 rather than 0 would go to NATS, and NJAS, which now has no budgeted funds, would have about \$3,000. The Academy would lose about \$3,000 in dues payments, but a considerable part (about \$2,000) of this loss would be offset by having NJAS pay its own expenses, which previously have been paid from the Academy's operating funds. The remaining \$1,000 loss to the Academy should be more than offset by the \$5 increase coming from members who are not K-12 teachers.

At the January 13 meeting, the Executive Committee directed that the proposed dues increase (Bylaws change) be voted on by mail ballot. Please vote on this issue in the place provided on the ballot enclosed with this newsletter.

November 1995

!!Valerie is retiring (sob, sob)!!

Valerie Blake, our loyal and efficient Office Manager and General Supervisor of Operations, informed us well over a year ago that when her husband, Richard, retired from his position with a Lincoln insurance firm, she also would retire, and they would move away from the Lincoln area. We hoped, of course, that Richard's retirement would be later rather than sooner, but on November 1, Valerie told us that Richard is retiring on December 29, 1995. He may serve as a consultant for the firm for a month or so after that, but Valerie's remaining days in her present position are definitely limited. Valerie has served the Academy faithfully, cheerfully, and extremely well. She most certainly will be missed. We wish the Blakes happy travels and a well-deserved, enjoyable retirement in their Naponee home with lots of good fishing in the nearby Harlan County Reservoir.

Your suggestions for a person to take over the duties (especially the secretarial

duties) that Valerie has handled so well would be appreciated. Please ask such persons to send a resume to the Academy office if they wish to apply.

President's Message

It is a great pleasure for me to address the Nebraska Academy of Sciences as your president for 1995-96. Because of the efforts of the Executive Committee, the Interim Co-directors, committee members and numerous other volunteers, the future of the Academy is much brighter than in recent years.

The death of Dr. C. Bertrand Schultz on March 7, 1995, was indeed a great loss. The Academy will be forever grateful to Dr. Schultz for years of dedicated service to this organization and his generosity. You might recall that Dr. and Mrs. Schultz previously had given the Academy a section of mixed-grass prairie in Webster County and the Grandview Heights property (the Schultz home and acreage in north Lincoln). The estate has generously provided moneys for an endowment to fund operating expenses for these properties. An Investment Committee, chaired by Dr. Claire Oswald, was formed and met regularly during the summer. Because of their hard work, the Academy now has a special trust fund, the proceeds of which will help to maintain the above properties. Some other committees that have been especially active include the Prairie Committee and the Electronic Information Committee. The Prairie Committee has been working to resolve problems associated with the management and grazing of the Schultz Prairie. The Electronic Information Committee is a new committee working to facilitate the use of electronic media for use in science education. Through their efforts the Academy now has a home page available on the Internet.

Interim Co-directors Francis Haskins, Robert Johnston, Rosalind Morris, and Counselor George Coleman have continued their fund-raising efforts toward the goal of funding the position of Executive Director. We are extremely fortunate to have them helping the Academy in this way, and I am confident that their work will be fruitful in time.

The expanding role of science in society makes it imperative that we help to facilitate the public's understanding of how science really works. Improving the scientific literacy of Nebraska's citizens is an objective shared by science educators at all levels. The Academy can be very proud of our affiliate, the Nebraska Association of Teachers of Science (NATS). The NATS Fall Conference continues to grow with approximately 150 presenters, 15 workshops, and more than 600 participants scheduled to take part in the fall conference, October 26-28, at Camp Calvin Crest, south of Fremont.

I greatly appreciate the strong support the Academy has received from members and friends. Although much progress has been made, a number of difficult issues remain to be resolved. If we wish to continue to effectively promote scholarship, excellence in science, and science literacy for all, we must continually work to strengthen our organization. You can play an important role by recruiting colleagues and others for membership, upgrading your membership category, or making a special tax-deductible gift to the Academy. Also please consider attending the Annual Meeting in April. The many presentations by both Junior and Senior Academy members and the interaction with colleagues definitely make it a worthwhile and rewarding experience.

Steve Rothenberger, 1995-1996 President

Plans for the Hilltop Road Property

In accordance with Dr. Schultz's expressed wishes and with the provisions of the trust deed by which title to the property was transferred to the Academy, we intend to use the property for education and research. Specifically, the house will be used as a headquarters for the Academy's TER-QUA division, as a place for the storage and

display of various items of "Schultz memorabilia," and as a meeting place for standing and ad hoc committees of the overall Academy and the TER-QUA and NATS divisions. The house may also be used for small group seminars. The Hilltop Road Committee is pleased to announce that Ben and Sandra Mientka have been selected as caretakers/curators of the property. They plan to occupy the house in the near future. To avoid any possibility of conflict of interest, Dr. Walter Mientka (Ben's father) has asked to be replaced as Chair of the Hilltop Road Committee, but he will continue to serve on the committee. The new committee chair is Dr. David Lewis.

The area of prairie grasses and trees will be available for various types of field trips. We intend to make it available to students at all levels, from elementary school through graduate school. Also, we intend to allow groups such as the Girl Scouts to use the wooded area for some of their activities as was done in years past.

The cropland area presents some special problems. This area must be used in a way that provides satisfactory control of weeds and erosion, and, like the other parts of the property, it must be used for educational purposes to qualify for exemption from real estate taxes. We hope to establish plantings of soil-holding plants such as perennial prairie grasses and flowers, and to arrange with faculty members from schools and colleges in this part of Nebraska to use the area for field trips and research.

Suggestions for various educational and research uses of this excellent property are welcomed. Please send your suggestions to the Academy office or to Dr. David Lewis, Chair of the Academy's Hilltop Road Committee, 228 Keim Hall, UN-L, Lincoln, NE 68583--0914.

1995 NATS Fall Conference

Congratulations to the NATS Division for another exciting, inspiring Fall Conference. The event was held at Camp Calvin Crest on October 26-28. There were about 650 registrants, and over 150 individuals served as presenters. The continuing success of these Fall Conferences is a tribute to the vision, enthusiasm, and hard work of NATS members.

New WWW home pages for Science Educators

Based on a write-up by John Markwell, Department of Biochemistry, UNL, Lincoln, NE 68568-0664. Phone: (402)472-2924; e-mail: markwell@unl.edu)

As a part of its continuing effort to facilitate science education in Nebraska, the Academy has established an Electronic Information Committee. President Steve Rothenberger appointed John Markwell, Chris Smith, and Bob Curtright as the initial members of the committee; expansion of the committee to provide broad representation of the K-16 science education community across Nebraska is anticipated.

The first effort of the NAS Electronic Information Committee has been to establish World Wide Web pages for NAS and for NATS. The NAS home page includes information about the history of the organization, its goals and membership. Although portions of the page are currently under construction, there will eventually be hyperlinks to information about the various constituent organizations and divisions which comprise the NAS, information about the annual meetings of the Collegiate and Junior Academies, information on resources available to science educators, access to state-wide and national science initiatives and reforms, and access to organizations which provide funding for K-16 science education. Any science educator in Nebraska (or the world) with access to the Internet and a web-browser can access the NAS page with the following URL: <http://www.unl.edu/stc-95/nashp.html>

The home page of NATS was established to provide information to the members of

this organization. News items which currently await publication of the newsletter for dissemination will start to appear on the NATS page on a monthly basis. Perhaps the most ambitious aspect of this page is that it will be used to archive the events of the annual Fall Conference. Thus, if you miss the meeting or remember a particularly useful talk, but can't remember who presented it, you can access the archive and retrieve the name and address of all presenters, titles of the talks, abstracts, and eventually (maybe this year to a limited extent) electronic copies of the handouts. The NATS page can be accessed via the following URL: [http:// www.unl.edu/stu-95/natshp.html](http://www.unl.edu/stu-95/natshp.html)

The Academy wishes to recognize the many hours of time contributed by this committee in getting these resources developed and housed on the Internet.

September 1997

FROM THE PRESIDENT

I would like to express my appreciation to the other officers of NAS for keeping the organization moving forward during the past several months while I have been undergoing treatment for prostate cancer. The surgical results were very positive, and I am now in a position where I can devote the time necessary to lead this august group.

Being a life member of the Academy and a past president and board member of the NATS Division, I have seen several ups and downs for each Division. I am impressed with the "health and vitality" of the NATS Division. The past few years have certainly shown an upswing in participation by elementary and secondary teachers at the Fall NATS meeting. Bob Feurer, president-elect of the NATS Division, has just sent me a copy of the program schedule for the 1997 Fall NATS meeting, and it appears to be another "barn burner"...excellent job Aurietha Hoelsing, Bob Feurer, and the rest of the NATS leadership I can remember some sad meetings in the 70's when the GNATS (now NATS) meeting had more presenters than participants. What a turnaround!

With the inspired and inspiring leadership of Walter Mientka as Executive Director and Morton Stelling and Sandy Kaplan as our Associate Executive Directors, I am convinced that the next few years will see the same type of surge in NAS I will leave discussion of some of the particulars of the NAS "vision of the future" to the Directors for their columns. The finances of the organization are becoming much clearer due to the efforts of Bob Johnston, now retired from the treasurer's position, and Bob Nelson, who is currently working with our new (newer) computer to make sense of this complex organization's books. And, let's not forget Jean Nelson who labors daily in the Academy office to keep track of all of us and our needs. The President's hat is tipped to these folks and the other page and a half of tireless volunteers for the causes of the Academy.

In an effort to involve more members of the NATS Division in the governance of NAS, I have suggested that three past presidents of the NATS Division be placed on the P-E-P Committee of NAS. That move may require a constitutional change. We will work on it. We have enlarged the NAS Scholarship Committee to include two NATS Division members, Randy Johnson and Carolyn Schlager. The Maiben Memorial Lecture has been expanded to allow for a fall lecturer for the NATS Division and a spring lecturer for NAS in recognition of the fact that approximately one-half of the Academy membership is in the NATS Division. The fall Maiben Lecturer will be Dr. Charles Lang from Omaha Westside, a NATS and Academy member of long standing. Having known Dr. Lang since 1968, I know that his reminiscences will be exciting and colorful. I hope all NAS members will put Thursday, October 23 on the calendar to go to Camp Calvin Crest at Fremont to hear this rousing presentation. Let's go forward together to improve science and science education as we move rapidly into Century 21.

Jim McGahan
1997-98 President of the Academy

