THE OHIO ACADEMY OF SCIENCE
Registration Form
112th Annual Meeting
April 4-5-6, 2003
Hosted by the University of Findlay
Advance registration must be received by March 20, 2003

ALL MEETING ATTENDEES MUST REGISTER: Access to sessions by name tag only. Name tag, information packet and receipt will be available at the meeting. Please return the completed registration form along with the appropriate fees to the address printed below.

STUDENTS, SPOUSES, OR RELATIVES: A special discount schedule has been approved to promote and encourage participation of undergraduates, pre-college students, non-science spouses or relatives. All students, non-science spouses, parents or relatives must register using a separate form. This registration does not include membership or meals, which must be paid separately on this form.

STUDENTS, SPOUSES, OR RELATIVES: A special discount schedule has been approved to promote and encourage participation of undergraduates, pre-college students, non-science spouses or relatives. All students, non-science spouses, parents or relatives must register using a separate form. This registration does not include membership or meals, which must be paid separately on this form.

STUDENTS, SPOUSES, OR RELATIVES: A special discount schedule has been approved to promote and encourage participation of undergraduates, pre-college students, non-science spouses or relatives. All students, non-science spouses, parents or relatives must register using a separate form. This registration does not include membership or meals, which must be paid separately on this form.

AFTER MARCH 20

Non-science spouse, parent or relative of first author $10 $15

*Discount Rate for students who are not first author:
(Does not include membership)
1-4 from same institution $20 $25
5-10 from same institution $15 $20
11 or more from same institution $10 $15

Please use a SEPARATE REGISTRATION FORM for each person. Copy this form as needed.

PLEASE PRINT OR TYPE

Circle: Ms. Mrs. Mr. Dr.
Name ________________________________
First __________________ Middle _______ Last _________
Job Title ________________________________
School, Organization, Agency, Institution, or Employer ________________________________

Is the following a home address? __ Yes __ No
Students MUST use home, dorm or apartment address.
Address ________________________________________________
City __________________________ Zip __________ County ________
Work Phone (_______) ____________________________
Home Phone (________) ____________________________
FAX (____________) ____________________________
Email ________________________________

MAIL FORM WITH PAYMENT TO:
The Ohio Academy of Science
PO Box 12519
Columbus OH 43212-0519
FAX 614/488-7629

Registration Fees
Please check appropriate categories. One fee covers ALL THREE DAYS. Payment must be received by March 20, 2003 to avoid higher rates. On-site registration will be accepted at the higher rate by credit card or check ONLY. First authors have pre-paid registration when submitting their abstracts and DO NOT NEED to return this form unless they need meals. First authors are already registered for the meeting.

CURRENT MEMBER REGISTRATION RATE

<table>
<thead>
<tr>
<th>Category</th>
<th>After March 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>$65</td>
</tr>
<tr>
<td>Retired</td>
<td>$40</td>
</tr>
<tr>
<td>Student</td>
<td>$25</td>
</tr>
</tbody>
</table>

NON-MEMBER PROFESSIONAL AND RETIRED REGISTRATION RATE

<table>
<thead>
<tr>
<th>Category</th>
<th>After March 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>$140</td>
</tr>
<tr>
<td>Retired with Journal</td>
<td>$80</td>
</tr>
<tr>
<td>Retired without Journal</td>
<td>$65</td>
</tr>
</tbody>
</table>

NON-MEMBER PRE-COLLEGE AND COLLEGE STUDENT RATE

<table>
<thead>
<tr>
<th>Category</th>
<th>After March 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Student with Journal</td>
<td>$65</td>
</tr>
<tr>
<td>Student (17 &amp; under) w/Journal</td>
<td>$65</td>
</tr>
<tr>
<td>Student (17 &amp; under) w/o Journal</td>
<td>$50</td>
</tr>
</tbody>
</table>

Does not include Academy membership
<table>
<thead>
<tr>
<th>Category</th>
<th>After March 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-college student</td>
<td>$20</td>
</tr>
<tr>
<td>College student</td>
<td>$20</td>
</tr>
<tr>
<td>5-10 students each</td>
<td>$15</td>
</tr>
<tr>
<td>11 or more students each</td>
<td>$10</td>
</tr>
</tbody>
</table>

*See table at left for more information.

NON-SCIENCE SPOUSE, PARENT OR A RELATIVE OF A FIRST AUTHOR

<table>
<thead>
<tr>
<th>Category</th>
<th>After March 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spouse, parent or relative</td>
<td>$10</td>
</tr>
</tbody>
</table>

Please use a separate form for each.

MEALS (by preregistration)

<table>
<thead>
<tr>
<th>Category</th>
<th>After March 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday Dinner</td>
<td>$20</td>
</tr>
<tr>
<td>Sat. Science Policy Breakfast</td>
<td>N.C.</td>
</tr>
<tr>
<td>Saturday Lunch</td>
<td>$4.50 *$5</td>
</tr>
</tbody>
</table>

*$5.00 cash only at event

MEMBERSHIP RENEWAL

<table>
<thead>
<tr>
<th>Category</th>
<th>After March 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>$85</td>
</tr>
<tr>
<td>Regular Member</td>
<td>$75</td>
</tr>
<tr>
<td>Retired Member w/OJS</td>
<td>$40</td>
</tr>
<tr>
<td>College Student</td>
<td>$40</td>
</tr>
<tr>
<td>Student (Age 17 &amp; under) w/OJS</td>
<td>$40</td>
</tr>
<tr>
<td>Retired Member w/o OJS</td>
<td>$25</td>
</tr>
<tr>
<td>Student (Age 17 &amp; under) w/o OJS</td>
<td>$25</td>
</tr>
</tbody>
</table>

TOTAL ENCLOSED $________

METHOD OF PAYMENT

NO REFUNDS AFTER March 20, 2003.

Return checks subject to a $30.00 return fee.

Only registrations paid by Purchase Order, VISA, or MasterCard will be accepted by FAX at 614/488-7629.

This copy confirms a FAXed registration
Check enclosed payable to The Ohio Academy of Science
Purchase order enclosed No. ________________

Online payment option www.merchantamerica.com/ohiosci
Please charge my credit card

<table>
<thead>
<tr>
<th>Card Number</th>
<th>Card Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>____________</td>
<td>__________</td>
</tr>
</tbody>
</table>

Exp. Date __/__/____

Signature ________________________________
REGISTRATION POLICIES
The Ohio Academy of Science
112th Annual Meeting
Hosted by The University of Findlay
Findlay, Ohio
April 4-5-6, 2003
Advance registration must be received by March 20, 2003

ALL attendees must register.

ALL MEETING ATTENDEES: Access to sessions by name tag only. Name tag, information and receipt will be available at the meeting. Please return the completed registration form along with the appropriate fees to the address printed below.

STUDENTS, SPOUSES, PARENTS OR RELATIVES: To promote and encourage participation of undergraduates, pre-college students, non-science spouses, parents or relatives, a special discount schedule has been approved. All students, non-science spouses or relatives must register using a separate form. This registration does not include membership or meals which must be paid separately.

Spouse, parent or relative of first author

<table>
<thead>
<tr>
<th>Before March 20th</th>
<th>After March 20th</th>
</tr>
</thead>
<tbody>
<tr>
<td>$10</td>
<td>$15</td>
</tr>
</tbody>
</table>

Discounted Rates for students who are not first author:
(Does not include membership)

| 1-4 from same institution | $20 | $25 |
| 5-10 from same institution | $15 | $20 |
| 11 or more from same institution | $10 | $15 |

Please use a SEPARATE REGISTRATION FORM for each person.
Copy the form on the reverse side as needed.

MAIL FORM WITH PAYMENT TO:
The Ohio Academy of Science
PO Box 12519
Columbus OH 43212-0519

FAX 614/488-7629 for credit card or purchase order.

Online payment option
www.merchantamerica.com/ohiosci

PREREGISTRATION DEADLINE: March 20, 2003
Author’s Instructions for Preparation of Manuscripts

The Ohio Journal of Science considers for publication solicited Book Reviews and Research Reviews, and unsolicited Brief Notes and Research Reports. Solicited submissions will be requested by the editor or member of the editorial board. Book reviews will be requested of experts in the subject matter of the book to be reviewed. Research Reviews will be requested to serve as extensive surveys of the literature of an area of science in which the Academy members have an interest.

Unsolicited submissions, in the form of presentations of qualitative or quantitative data pertinent to any of the divisions of the Academy listed inside the front cover, will be considered for peer review. Brief notes are manuscripts that are less than 2 printed pages (approximately 6 typed pages) and contain no more than one table, figure or other type of illustration. The editor will identify papers which meet these criteria as Brief Notes if not already categorized as such by the author. Research Reports are those papers which are longer than 2 pages or contain more than one illustration.

All manuscripts will be organized as follows:

Page 1 - Title, Author(s), Running Head, Abstract

Page 2 and remainder -

Introduction,

Methods and

Results,

Discussion,

Acknowledgments,

Literature Cited,

Tables, Figure Legends,

Figures.

STYLE. The CBE Manual for Authors, Editors, and Publishers, 6th ed. is used for editorial decisions with regard to style. Manuscripts should be typewritten using 1 inch margins on 8.5 x 11 inch paper. Text should be left-justified using elite point (twelve characters per inch). Three copies should be submitted. Manuscript should be double-spaced throughout, including the title and abstract. Arabic numerals should be used in preference to words when the number designates anything that can be counted or measured (7 samples, 43 species). One exception to this use is that numerals are not used to begin a sentence (Twenty-one species were found in . . .). The 2nd exception is when 2 numeric expressions are adjacent in a sentence. The sections were divided into eight 4-acre plots.

The Ohio Journal of Science

Page 2 - Title, Author(s), Running Head, Abstract

Page 3 - Introduction, Methods and Results, Discussion, Literature Cited, Tables, Figure Legends, Figures.

ACKNOWLEDGMENTS. Colleagues and/or sources of financial support to whom thanks are due for assistance rendered in completion of the research or preparation of the manuscript should be recognized in this section rather than in the body of the text.

LITERATURE CITED. References to scientific literature should be arranged alphabetically by first author’s last name using the Name/Year (N-Y) method as described in the CBE Manual.

Journals

Author(s). Year. Article title. Journal title volume number (issue number): inclusive pages.


Form of citation: (Thomison 1988)

Books

Author(s). Year. Title. Place of publication: publisher name. Number of pages.


Form of citation: (Voet and Voet 1990)

Multiple author citation: (Steiner and others 1992)

TABLES. Tables must be typed double-spaced, one table to a page, numbered consecutively, and placed in the manuscript after Literature Cited. Since tables must be individually typeset, consolidation of data into the smallest number of tables is encouraged. A horizontal double underline should be made beneath the title of the table, and single underlines should be made below the column headings and at the bottom of the table. Do not use vertical lines, and do not place horizontal lines in the interior of the table. Footnotes should be used to clarify possible questions within the table, and should be noted by asterisks, daggers, or other symbols to avoid confusion with numerical data.

FIGURES. All illustrations are referred to as “Figures” and must be numbered consecutively. Figures may be photographs, hand-drawn or computer generated drawings in black ink. Each figure should be identified along the top edge with the name of the author(s) and figure number, and on the back with name of author(s) and manuscript title. Illustrations other than those generated by the author(s) must bear permission for use and credit to the originator. ORIGINAL ARTWORK WILL NOT BE RETURNED UNLESS SPECIFICALLY REQUESTED AT TIME OF SUBMISSION. Each figure must have a complete legend. The legend should not be placed on the figure, but should be typed in order, double-spaced, on a separate sheet which precedes the figures in the manuscript. Figures should be referred to parenthetically in the text, for example (Fig. 1). The size and proportion of each illustration should be suitable for reduction. Excessive white space should be avoided. Illustrations will be reduced to one column width (3 and 3/8 inches) or two column width (7 inches) at the discretion of the editor. Lettering should be done of a size to ensure that it can be read after reduction. On maps and other illustrations where original size is a concern, a graphic scale should be incorporated into the figure.

FOOTNOTES. Text footnotes should not be used with the following exceptions. A footnote to the title will be added editorially to state the dates of manuscript submission and revision. A footnote to name(s) of author(s) may be used to indicate present address different from that at which the research was done, or to indicate the author to whom inquiries should be directed. All other material or comments must be incorporated into the text. Literature Cited should not be inserted as footnotes. Footnotes to tables are permissible, and are encouraged to promote clarity.

Attention to the above instructions will minimize the need for revision and editorial correction, and will shorten the time from submission to publication. Any questions which are not answered by these instructions, or by consulting the CBE Manual for Authors, Editors, and Publishers, 6th Edition, should be addressed to the editor.

Dr. Isadore Newman, Editor

THE OHIO JOURNAL OF SCIENCE

Idabelle Firestone Center
41 Arch Street
Akron, OH 44304-1499 USA
Phone: 330/375-7732
inewman@uakron.edu
Stone Laboratory is the Lake Erie research and teaching laboratory for the Ohio Sea Grant College Program. Located on the 6.5-acre Gibraltar Island in Put-in-Bay harbor, this facility is the oldest freshwater biological field station and research laboratory in the United States. Since its establishment in 1895, both students and professional biologists have conducted significant research focusing on the ecology of Lake Erie and the Great Lakes region.

Students earn college credit through classroom, laboratory, and field studies, while gaining a comprehensive background in freshwater systems and information on the unique environmental attributes of Lake Erie.

**SUMMER COURSES 2003**

All dates will be posted on web site as they are confirmed.

**UPPER-LEVEL COURSES**

Designed for undergraduate and graduate students in biological sciences, education, and natural resources; professional biologists, and ecologists; and biology and general science teachers.

Classes meet three days a week

**TERM 1 — June 22 - July 23**
- Aquatic Entomology
- Field Zoology
- Ichthyology
- Limnology

**TERM 2 — July 24 - Aug. 23**
- Fish Ecology
- Higher Aquatic Plants

**OTHER**

Classes meet daily for one week

- New Field Plant Pathology (two weeks)
- New Herpetology
- New Nature Photography
- Waterfowl Ecology
- Ichthyoplankton Identification Workshop (one day)

**COURSES FOR EDUCATORS**

Designed for classroom teachers, non-formal educators, and education majors with senior rank by summer 2003.

Classes meet daily for one week
- Aquatic Environmental Science for Teachers
- Geologic Setting of Lake Erie
- Global Change Education
- Great Lakes Education Workshop
- Insect Biology for Teachers
- Ornithology for Teachers
- Principles of Oceanography for Science Teachers
- Stream Ecology for Teachers

**INTRODUCTORY COURSES**

Open to college and select high school students.

Classes meet daily for one week
- Aquatic Biology (offered four times)
- Field-Based Oceanography
- Insect Biology
- Local Flora
- Study of Birds

"To qualify, high school students must have completed their sophomore year, be 15 years of age or older, and have completed one course of high school biology prior to the beginning of the course.

**INFO SESSIONS AT THE OHIO STATE UNIVERSITY CAMPUS**

Detailed information about Stone Laboratory and the Summer 2003 program will be presented on the Columbus campus on the following dates, times, and locations:

- Thursday, November 21, 2002
- Tuesday, January 14, 2003
- Tuesday, February 4, 2003
- Thursday, February 20, 2003

- Enarson Hall from 10:30 – 11:30 a.m.
- 154 W. 12th Ave.
- Stone Laboratory from 6:30 – 7:30 p.m.
- Administrative Office, 1314 Kinnear Rd.

**www.sg.ohio-state.edu**

Updates on courses, instructors, and application materials.
THE OHIO ENVIRONMENTAL SCIENCE
& ENVIRONMENTAL ENGINEERING
SCHOLARSHIP PROGRAM
Website: http://www.ohiosci.org/OESEESCHOLARSHIPS.htm

Ohio Environmental Education
Fund

APPLICATION
Deadline: Mail First Class. Postmarked by April 18, 2003

$1,250 two year programs and $2,500 for four or five year programs, non-renewable

These merit based, non-renewable, tuition only scholarships will be given to undergraduate students admitted to Ohio state or private colleges and universities who can demonstrate their knowledge and commitment to careers in environmental sciences or environmental engineering. Students must be in the final year of the program by the autumn term. Awardees will be selected by an Academy appointed panel.

Circle Title Ms. Mr. Mrs. First Middle Last

Home Address

City State Zip EMAIL

Home # (_____) Social Security #: _______ _______ _______ Year in school by autumn term: 2nd 4th 5th

College or University

Academic major

Advisor's full name Office# (_____) Expected date of graduation

Are you a member of an under-served population in your field of study? _YES ___ NO

If selected, are you willing to participate in annual follow-up surveys for three years after receipt of a scholarship? ___ YES ___ NO

May the Academy release your name and resume to potential employers? ___ YES ___ NO

PLEASE RESPOND TO THE FOLLOWING AND ATTACH APPROPRIATE SUPPORTING INFORMATION:

(1) Academic record with an overall GPA of at least 3.0. Your current GPA _______ on a 4.0 system. Please attach a current (full) transcript and circle the GPA. Transcript must include all courses taken to-date. Enclose an “OFFICIAL” transcript with your original signed application and unofficial copies in the 6 identical sets.

(2) Attach a maximum 2 page vita, biosketch, or resume that includes the following elements, in this order: personal information, education, employment and/or internships (basic information only), honors/awards, professional memberships, publications (full citation), presentations given and professional meetings attended, and community service.

(3) Attach an *essay describing your reasons for choosing a career in environmental science or environmental engineering and how this scholarship will help you.

(4) Attach an *essay detailing any original research, scholarship, employment and/or internships, or other unique contributions to environmental science or environmental engineering.

(5) Attach an *essay describing your extra curricular activities and participation in organizations that demonstrates your leadership and interpersonal skills and social responsibility.

(6) Attach two letters of recommendation from education or environmental professionals, addressed to Scholarship Review Committee. One must be from a faculty member at your institution.

*each essay may not exceed 1 two-sided page, double spaced, 12 point type, 1" margins

Amount Requested $ _______. Maximum: $1,250 for two year programs and $2,500 for four or five year programs, non-renewable. Date needed __________________. NOTE: If you are awarded a scholarship, the check will be sent to the college financial aids office. All applicants will be notified of the scholarship recipients.

I certify that all information provided is true and accurate, I authorize independent verification, and I understand that if awarded a scholarship, information contained in this application may be released to the media.

SIGNATURE DATE

Please enclose a self-addressed, stamped postcard to acknowledge receipt of your application.

QUESTIONS? Phone (614) 488-2228 • Email oas@iwaynet.net • Website: http://www.ohiosci.org

MAIL FIRST CLASS a complete, original signed copy with stapled attachments and 6 identical, two-sided, collated and stapled (please do not bind) copies (7 total) postmarked by Friday, April 18, 2003:

Environmental Science Scholarships
The Ohio Academy of Science
PO Box 12519
Columbus OH 43212-0519
A RESOLUTION
BY THE OHIO ACADEMY OF SCIENCE

ADVOCACY FOR TEACHING COSMIC, GEOLOGICAL AND BIOLOGICAL EVOLUTION
AND OPPOSITION TO FORCED TEACHING OF CREATIONIST BELIEFS SUCH AS "INTELLIGENT DESIGN"
IN PUBLIC SCHOOL SCIENCE EDUCATION

WHEREAS, it is a responsibility of The Ohio Academy of Science to preserve the integrity of science; and

WHEREAS, science is a systematic method of continuing investigation, based on observation, hypothesis testing, measurement, experimentation, and theory building, which leads to more adequate explanations of natural phenomena, explanations that are open to further testing, revision, and falsification, and while not "believed in" through faith may be accepted or rejected on the basis of evidence; and

WHEREAS, the theory of evolution, as presently defined, fully satisfies these criteria, especially when its teaching considers the remaining debates concerning its detailed mechanisms; and

WHEREAS, the Academy respects the right of people to hold diverse beliefs about creation that do not come within the definitions of science; and

WHEREAS, some Creationist groups are intent on imposing religious beliefs disguised as science upon teachers and students to the detriment and distortion of public education in the United States;

THEREFORE, BE IT RESOLVED that because "Creation Science" and "Intelligent Design" have no scientific validity, they should not be taught as science, and further that the OAS views legislation requiring such religious views to be taught in public schools, as though these were legitimate arguments against evolution that should be included as part of a so-called balanced treatment approach, to be a real and present threat to the integrity of education and the teaching of science; and

BE IT FURTHER RESOLVED that the OAS urges citizens, educational authorities, and legislators to oppose the compulsory inclusion in the curricula, the state competencies or proficiency tests for science education of religious beliefs that are not amenable to the process of scrutiny, testing, and revision that is indispensable to science.

BE IT FURTHER RESOLVED that the OAS urges citizens, educational authorities, and legislators to include, explicitly, cosmic, geological and biological evolution in the curricula, state competencies and proficiency tests for science education.

Revised and Approved February 28, 2000 by the Executive Committee of The Ohio Academy of Science; based on a similar resolution adopted by the Academy on April 23, 1982.