

THE OHIO ACADEMY OF SCIENCE ANNUAL MEETING

Registration Form

111th Annual Meeting

April 5-6-7, 2002

Hosted by Capital University, Columbus, OH

Advance registration must be received by **March 15, 2002**

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: To promote and encourage participation of undergraduates, pre-college students, non-science spouses or relatives, a special discount schedule has been approved. **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.

	After March 15th	
Non-science spouse, parent or relative of first author	\$25	\$30

***Discounted Rates for students who are not first author:**

(Does not include membership)

1-4 from same institution	\$25	\$30
5-10 from same institution	\$20	\$25
11 or more from same institution	\$15	\$20

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 _____

STATE _____ 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
PRE-REGISTRATION DEADLINE:
March 15, 2002

REGISTRATION FEES

Please check appropriate categories. One fee covers **ALL THREE DAYS**. Payment must be received by March 15, 2002 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

	After March 15th	
<input type="checkbox"/> Professional	\$65	\$70
<input type="checkbox"/> Retired	\$40	\$45
<input type="checkbox"/> Student	\$25	\$30

NON-MEMBER PROFESSIONAL AND RETIRED REGISTRATION RATE Includes membership

<input type="checkbox"/> Professional	\$140	\$145
<input type="checkbox"/> Retired with Journal	\$80	\$85
<input type="checkbox"/> Retired without Journal	\$65	\$70

NON-MEMBER PRE-COLLEGE AND COLLEGE STUDENT RATE Includes membership

<input type="checkbox"/> College Student with Journal	\$65	\$70
<input type="checkbox"/> Student (17 & under) with Journal	\$65	\$70
<input type="checkbox"/> Student (17 & under) w/o Journal	\$50	\$55

Does Not Include membership

<input type="checkbox"/> Pre-college student	\$25	\$30
<input type="checkbox"/> College student	\$25	\$30
<input type="checkbox"/> 5-10 students each	\$20	\$25
<input type="checkbox"/> 11 or more students each	\$15	\$20

*See table at left for more information.

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

<input type="checkbox"/> Spouse, parent or relative	\$25	\$30
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Please use a separate form for each.

MEALS (ONLY by preregistration)

<input type="checkbox"/> Friday Dinner	\$20	N.A.
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MEMBERSHIP RENEWAL

<input type="checkbox"/> Family	\$85
<input type="checkbox"/> Regular Member	\$75
<input type="checkbox"/> Retired Member w/OJS	\$40
<input type="checkbox"/> College Student	\$40
<input type="checkbox"/> Student (Age 17 & under) w/OJS	\$40
<input type="checkbox"/> Retired Member w/o OJS	\$25
<input type="checkbox"/> Student (Age 17 & under) w/o OJS	\$25

TOTAL ENCLOSED

\$ _____

METHOD OF PAYMENT

NO REFUNDS AFTER March 15, 2002.

Return checks subject to a \$25.00 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
- Charge my credit card

___ VISA  ___ MASTERCARD 

Card Number

□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

Exp. Date □ □ / □ □

Signature _____

REGISTRATION POLICIES
The Ohio Academy of Science
111th Annual Meeting

Hosted by **Capital University**
Columbus, Ohio
April 5-6-7, 2002

Advance registration must be received by March 15, 2002

ALL attendees must register.

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		<u>After</u> <u>March 15th</u>
Spouse, parent or relative of first author	\$25	\$30

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(Does not include membership)

1-4 from same institution	\$25	\$30
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11 or more from same institution	\$15	\$20

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for each person.**

Copy the form on the reverse side as needed.

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Columbus OH 43212-0519

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PRE-REGISTRATION DEADLINE: March 15, 2002

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 Academy members have an interest.

Unsolicited submissions, in the form of presentations of quantitative or qualitative 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 two 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, Materials and Methods, 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 print (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 number easiest to express in words should be spelled out and the other left in numeric form (The sections were divided into eight 4-acre plots.).

TITLE, AUTHOR(S), AFFILIATION(S). The first page of the manuscript should contain the title, author(s) name(s), the affiliation of the author(s) at the time the research was carried out, a shortened title (running head), and the abstract. The title must be typed in upper and lower case letters as it will appear when typeset. Name(s) of the author(s) should be typed in capital letters below the title. The address (department, institution, city, state, postal code, country if not USA) should appear below the name of the author(s). If more than one institution is to be credited, they should appear in the order of the authors' affiliation. A running head of not more than 38 letters and spaces should be typed in capital letters between the address and the abstract.

ABSTRACT. The abstract should summarize the main conclusions and any new methods or procedures critical to the results of the study. It should be 250 words or fewer.

INTRODUCTION. The introduction should describe the knowledge that gave rise to the question examined by, or the hypothesis posed for the research.

MATERIALS AND METHODS. This section should describe the research design, the methods and materials used in the research (subjects, their selection, equipment, laboratory or field procedures), and how the findings were analyzed.

RESULTS. The text of the results should be a descriptive narrative of the main findings, of the reported study. This section should not list tabulated data in text form. Reference to tables and figures included in this section should be made parenthetically in the text.

DISCUSSION. This section should compare and contrast the data collected in the presented study with that previously reported in the literature. Unless there are specific reasons to combine the two, as explained by the author in the letter of transmittal, Results and Discussion should be two separate sections.

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.

Thomison JB. 1988. Uniform requirements for manuscripts. *South Med J* 81(8):947-52.

Form of citation: (Thomison 1988)

Books

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

Voet D, Voet JG. 1990. Biochemistry. New York: J Wiley. 1223 p.

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 the width of the table 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
The Ohio Journal of Science
Idabelle Firestone Center
41 Arch Street
Akron OH 44304-1499

Summer 2002 Courses at Stone Laboratory

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.

Most classes meet three days a week for approximately five weeks

- Aquatic Entomology
- NEW Digital & Field Techniques for Coastal Environment Studies
- Field Zoology
- Fish Ecology
- NEW Great Lakes Maritime Studies
- Higher Aquatic Plants
- Ichthyology
- Limnology
- Waterfowl Ecology (daily for 1 week)
- Ichthyoplankton Identification Workshop (one day)

COURSES FOR EDUCATORS

Designed for classroom teachers, non-formal educators, and education majors with senior rank by summer 2002.

Classes meet daily for one week

- NEW Aquatic Environmental Science for Teachers
- NEW Curriculum Development for Environmental Decision-Making
- Geologic Setting of Lake Erie
- 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
- Field-Based Oceanography
- Insect Biology
- Local Flora
- Study of Birds

**To qualify, 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.*

Stone Laboratory offers scholarships and employment opportunities.



Current information and application materials are available on-line at www.sg.ohio-state.edu

Stone Laboratory, The Ohio State University's island campus, 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. At Stone Laboratory, participants will:

- Examine the ecosystem around Stone Laboratory with leaders in science who bring classroom concepts to life.
- Improve research skills with practical, hands-on experience in a living laboratory.
- Earn college credit while still in high school.
- Enhance teaching skills in environmental sciences.
- Live, study, and work on an island for one to 11 weeks.
- Get to know professors personally in small classes (12 to 20 people).
- Prepare for college, graduate school, a future career, and life.

Stone Laboratory also offers Workshops, Research, Conference, and Retreat Facilities.

The Ohio State University's Island Campus

F. T. Stone Laboratory, The Ohio State University, 1314 Kinnear Road, Columbus, OH 43212-1194
614/292-8949, Fax 614/292-4364 • www.sg.ohio-state.edu • Jeffrey M. Reutter, Ph.D., Director



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.

C:\My Documents\Word\Governance\EVOLRESOLUTIONFinalApprovedFeb282000.doc

THE OHIO ACADEMY OF SCIENCE

1500 West Third Avenue Suite 223 · Columbus OH 43212-2817
Phone 614/488-2228 · Toll Free Outside of Area Code 614, if needed, 1-800-OHIOSCI · Fax 614/488-7629
Email oas@iwaynet.net · Website <http://www.ohiosci.org>

In accord with the Annual Meeting theme of
FRONTIERS OF SCIENCE . . .

The Ohio Academy of Science

is pleased to announce that the All-Academy Lecture, entitled

Remember Fantastic Voyage?

will be given by

MAURO FERRARI, Ph.D.

of

The Ohio State University

Edgar J. Hendrickson Professor and Director of Biomedical Engineering
Professor of Internal Medicine
Professor of Mechanical Engineering
Professor of Materials Science and Engineering
Associate Director, Dorothy M. Davis Heart and Lung Research Institute

Saturday, April 6, 2002

Capital University

Columbus

RESEARCH INTERESTS

PROFESSOR FERRARI IS A FOUNDER of the fields of biomedical nano- and micro- technology (bioMEMS), and a pioneer of their applications to medical therapeutics in sectors such as drug delivery, cell transplantation, and tissue engineering. In particular, he is interested in oncology, cardiovascular disease and diabetes. *His group was the first to successfully perform the implantation of hybrid chips (biological cells included in immunoprotective silicon microchips) into animal models.* Additional interests of his include biosensors and bioseparation, multiscale discrete/continuum mechanics and biomechanics; mechanics of composite materials and structures; Thermoelasticity; Homogenization Theory; Functionally graded materials.