Front Matter
THE OHIO JOURNAL OF SCIENCE
ISSN 0030-0950

Editorial Policy:

General:
THE OHIO JOURNAL OF SCIENCE considers original contributions from members and non-members of the Academy in all fields of science. While special consideration will be given to manuscripts concerned with Ohio subject matter, other reports with scientific merit will be reviewed for publication. Submission of a manuscript is understood to mean that the work is original and unpublished, and is not being considered for publication elsewhere. All manuscripts considered for publication will be peer-reviewed. The opinions expressed by reviewers are their own, and do not represent the views of the Ohio Academy of Science or THE OHIO JOURNAL OF SCIENCE. Manuscripts and illustrations should be prepared in triplicate in accordance with current guidelines published in THE JOURNAL at least once a year, and submitted to:

Dr. Thomas W. Schmidlin, Editor
THE OHIO JOURNAL OF SCIENCE
Department of Geography
Kent State University
Kent, OH 44242-0001

Page Charges:
Publication of THE OHIO JOURNAL OF SCIENCE requires that authors assist in meeting publication expenses. These costs will be assessed at $75 per page for members of the Academy and $110 per page for non-members. In multi-authored papers, each author must be a member of the Academy at the time of publication to be eligible for the reduced member rate. Papers which exceed 12 printed pages may be charged full production costs. A bill for page charges will be sent to the communicating author by the Ohio Academy of Science at the time of publication.

Failure to Receive THE JOURNAL:
Any claim of failure to receive subscription issues of THE JOURNAL must be submitted to the Ohio Academy of Science within six months of date of issue of the missing number, to be recognized.

Listing Services:
THE OHIO JOURNAL OF SCIENCE is listed or abstracted in several sources including:
- AcadSci Abstracts
- Bibliography of Agriculture
- Biological Abstracts
- Chemical Abstracts
- Current Advances in Ecological Sciences
- Current Contents (Agriculture, Biology & Environmental Sciences)
- Deep Sea Research and Oceanography Abstracts
- Environment Abstracts
- Environmental Information Center
- Forest Products Abstracts
- Forestry Abstracts
- Geo Abstracts
- GEOBASE
- Geology Abstracts
- GeoRef
- Helminthological Abstracts
- Horticulture Abstracts
- Nuclear Science Abstracts
- Review of Plant Pathology
- Selected Water Resources Abstracts
- World Agricultural Economics and Rural Sociology Abstracts

FUTURE ACADEMY MEETINGS
1999 Cleveland State University
April 23, 24, 25

Date of issue—September/December 1998
Typesetting—Ardella Pierce
Copyright © 1998 by The Ohio Academy of Science
Printing—Spencer-Walker Press, Inc., Newark, OH USA
ARTICLES

66 The Ground Beetles (Coleoptera: Carabidae) of Stillfork Swamp Nature Preserve, Carroll County, Ohio by J. D. Usis and D. B. MacLean

69 Development and Implementation of a Graphical User Interface to Examine Land-Use Planning Efforts in Licking County, Ohio by T. Peters and J. Nichols

75 Laboratory Scale Septic Tanks by J. Peeples and K. Mancl

80 Effect of Wastewater on the Concentrations of Mo, Zn, Cu, and Ni in Mill Creek at Marysville, Ohio by T. M. Mensing and G. Faure

BOOK REVIEWS

84 Calvinists Incorporated: Welsh Immigrants on Ohio's Industrial Frontier by A. K. Knowles Reviewed by R. Lewis

85 Applied Hydrogeology for Scientists and Engineers by Z. Sen Reviewed by A. Shakoor

86 Necrology

94 Officers, Committees, and Academy Representatives for 1998-99

95 Index to Volume 98

99 Table of Contents, Volume 98

INSTRUCTIONS TO AUTHORS — inside back cover

COVER PHOTO: Stillfork Swamp Nature Preserve at the intersection of Still Fork Creek and County Road 10 (Carroll County, OH). See related article by Usis and MacLean (pp 66-68). (Photo courtesy of John D. Usis, Youngstown State University.)