

THE OHIO JOURNAL OF

SCIENCE

Volume 78

May, 1978

Number 3



THE OHIO JOURNAL OF SCIENCE

Editor.....MILTON A. LESSLER
Associate Editor.....EMANUEL D. RUDOLPH
Business Manager.....JOSEPH D. LAUFERSWEILER
Editorial Assistant.....DIANE R. WHITBECK

DIVISION EDITORS

Administrative Science and Planning.....FRANK J. COSTA, Akron
Animal Sciences and Zoology.....CHARLES VAUGHN, Oxford
Anthropology and Social Sciences.....FELICITAS D. GOODMAN, Granville
Chemistry, Physics and Astronomy.....GILBERT GORDON, Oxford
Ecology.....LAZARUS W. MACIOR, Akron
Engineering and Bioengineering.....R. FRED ROLSTEN, Dayton
Entomology.....ROY W. RINGS, Wooster
Environment and Conservation.....CARL S. JOHNSON, Columbus
Genetics and Molecular Biology.....C. WILLIAM BIRKY, JR., Columbus
Geology, Earth and Geography.....ROBERT J. MALCUIT, Granville
Medical Sciences.....LIBERATO J.A. DiDIO, Toledo
Microbiology and Immunology.....FRANK CHORPENNING, Columbus
Plant Sciences and Botany.....WARREN A. WISTENDAHL, Athens
Psychology.....ISADORE NEWMAN, Akron
Science Education and History of Science.....JOY LINDBECK, Akron

The OHIO JOURNAL OF SCIENCE considers original contributions from members and non-members of the Academy. Special consideration will be given to short papers and to Ohioana. All manuscripts will be critically reviewed and are subject to the approval of the Editorial Committee. It should be understood that the opinions expressed by the reviewers are their own, and do not represent the views of the OHIO ACADEMY OF SCIENCE or OHIO JOURNAL OF SCIENCE. Manuscripts and illustrations should be prepared in triplicate and submitted to the Editor, OHIO JOURNAL OF SCIENCE, Department of Physiology, Ohio State University, 1645 Neil Avenue, Columbus, Ohio 43210.

PAGE CHARGES: Publication of papers in the OHIO JOURNAL OF SCIENCE requires consideration of publication costs. There is no charge for the first 3 pages published in any one year and \$35 per page charge for manuscripts in excess of 3 printed pages or having excess tables or illustrations.

Page charges apply uniformly to both members and non-members, and are not a condition for acceptance or rejection of any manuscript.

SUBSCRIPTIONS: Annual dues of active members of the OHIO ACADEMY OF SCIENCE include a subscription to the OHIO JOURNAL OF SCIENCE. Regular annual subscription to the OHIO JOURNAL OF SCIENCE is \$18 (outside the continental United States—\$19.50). Single issues for Academy members are \$3 each, for non-members, \$3.50. Discounts are available for bulk subscriptions. The OHIO JOURNAL OF SCIENCE is issued bimonthly, January to November, with 6 issues per volume plus an April Program and Abstracts Supplement.

BUSINESS OFFICE: Remittances should be made out to the OHIO JOURNAL OF SCIENCE but sent to the OHIO ACADEMY OF SCIENCE office, 445 King Avenue, Columbus, Ohio 43201; Telephone: (614) 424-6045.

Failure to receive any number of the JOURNAL must be reported to the OHIO ACADEMY OF SCIENCE within six months of the date of issue for the claim to be recognized. Correspondence dealing with matters of business policy should be addressed to the Business Manager, Joseph D. Laufersweiler, Department of Biology, University of Dayton, Dayton, Ohio 45409.

Printed by the Spahr & Glenn Company, Columbus, Ohio, U.S.A.

Second Class postage paid at Columbus, Ohio

Date of Issue—June 21, 1978

THE OHIO JOURNAL OF SCIENCE

Vol. 78

MAY, 1978

No. 3

TABLE OF CONTENTS

	110	Announcements
M. J. Camp and A. L. Ginder	111	Pleistocene Mollusca of the Sunbeam Prairie Lacustrine Deposit, Darke Co., Ohio
M. C. Cole, L. J. A. DiDio and R. A. Yeasting	119	The Incidence and Variation of Atrial Veins in the Heart of Dogs
J. A. Negulesco, M. A. Lessler and M. A. Decker	124	Oxidative Metabolism of Healing Avian Bone Fractures: Effects of Estrogen and Hypergravity
E. R. Caley	129	Early History of the Department of Chemistry of the Ohio State University
W. D. Warren	136	Comparison of Planning Activities in Smaller Cities in Indiana, Kentucky and Ohio
B. H. Bauer, B. A. Branson and S. T. Colwell	144	Fishes of Paddy's Run Creek and the Dry Fork of the Whitewater River, Southwestern Ohio
D. S. Heicher and W. W. Gallati	149	Three New Hosts For the Cysticercoid of <i>Hymenolepis diminuta</i>
P. W. Pappas	152	The Inability of a Trypanorhynchid Cestode to Utilize Co ₂ Produced During Urea Catabolism
D. L. Deonier and J. T. Regensburg	154	New Records of Ohio Shore Flies (Diptera: Ephydriidae)
	156	New Publications Received