

THE OHIO JOURNAL OF

SCIENCE

Volume 77

September, 1977

Number 5



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, Environment and Conservation.....CARL S. JOHNSON, Columbus
Engineering and Bioengineering.....FRANCIS JANKOWSKI, Dayton
Entomology.....ROY W. RINGS, Wooster
Genetics and Molecular Biology.....C. WILLIAM BIRKY, JR., Columbus
Geology, Earth and Geography.....ROBERT J. MALCUIT, Granville
Mathematical Sciences.....PAUL HESSLER, Springfield
Medical Sciences.....LIBERATO J.A. DiDIO, Toledo
Microbiology and Immunology.....FRANK CHORPENNING, Columbus
Plant Sciences and Botany.....JANE DECKER, Delaware
Science Education and History of Science.....JOY LINDBECK, Akron
Psychology.....ISADORE NEWMAN, 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 4 pages published in any one year and \$35 per page charge for manuscripts in excess of 4 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. If the author or authors cannot pay the page charges, it will be necessary to petition the OHIO ACADEMY OF SCIENCE for possible waiver of page charges.

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 \$15 (outside the continental United States—\$16.50). 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.

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—September 30, 1977

THE OHIO JOURNAL OF SCIENCE

Vol. 77

SEPTEMBER, 1977

No. 5

TABLE OF CONTENTS

	198	ANNOUNCEMENTS
G. L. Wright, E. Knecht and B. Lempert	199	Prediction of Survival Time of Rats in Hot Environments
J. E. Szilagyi and H. S. Weiss	207	A Sex Difference in the Mortality Pattern of L 1210 Leukemia in DBA/2 Mice
R. B. Prior, T. M. Seed and R. L. Perkins	210	Surface Charge Determination of <i>Proteus mirabilis</i> Exposed to Carbenicillin
D. F. Parr and L. L. Y. Chang	213	Descriptive Mineralogy of Pugh Quarry, Northwestern Ohio: Marcasite and Pyrite
T. O. Hoover	222	Further Interpretation on the Implications of Rorschach Card Meaning
C. E. Warnes and C. I. Randles	224	Preliminary Studies on Chitin Decomposition in Lake Erie Sediments
V. L. Riemenschneider G. E. Gilbert	231	Interception of Solar Radiation by Three Deciduous Forest Communities in Neotoma, A Valley in Southcentral Ohio
R. C. Evans and D. G. Fratianne	236	Interactions of Applied Hormones in the Germination of <i>Lepidium virginicum</i> Seeds
D. C. Beckett	240	Discovery of a Rare Mayfly (<i>Anepeorus</i> sp.) in The Ohio River
D. C. Beckett, P. A. Lewis and J. R. Holsinger	242	Report of an Amphipod Species New to Ohio: <i>Gammarus minus</i> Say (Amphipoda: Gammaridae)
T. E. Perry	243	Epitheca (Tetragoneuria) Canis MacLachlan Another Dragonfly New to Ohio