

# THE OHIO JOURNAL OF SCIENCE

JANUARY, 1939

TABLE OF CONTENTS

|  |                          |
|--|--------------------------|
| The pH Carbon Dioxide Tension, and the Hemoglobin Percentages of Venous Blood of Various Fresh Water Fishes,<br><i>Edwin B. Powers, Howard H. Rostorfer<br/>and Theresa H. Rostorfer</i> | 1                        |
| Short Studies on the Histeridae (Coleop.)—No. 2,<br><i>Rupert L. Wenzel</i>  | 10                       |
| The Hydrogen-ion Concentration of the Soil in Relation to Flora at Squire Valleevue Farm.. <i>Margaret Elizabeth Hodgman</i>   | 15                       |
| Dissolved Oxygen Profiles at Norris Dam and in the Big Creek Sector of Norris Reservoir (1937), with a Note on the Oxygen Demand of the Water (1938)..... <i>A. H. Wiebe</i>             | 27                       |
| Variation in <i>Moniezia expansa</i> Rudolphi..... <i>Stephen R. Williams</i>  | 37                       |
| Snowfall Maps of Ohio..... <i>Fred A. Carlson</i>  | 43                       |
| Spiders and Insects Found Associated with Sweet Corn, with Notes on the Food and Habits of Some of the Species.<br>III. Hymenoptera..... <i>Ray Thomas Everly</i>                        | 48                       |
| Spiders and Insects Found Associated with Sweet Corn, with Notes on the Food and Habits of Some Species. IV. Diptera and Hemiptera..... <i>Ray Thomas Everly</i>                         | 52                       |
| The Digestive System of <i>Macrosiphum solanifolii</i> (Ash.). (Aphidae: Homoptera)..... <i>Clyde F. Smith</i>   | 57                       |
| Book Notices.....  | 9, 36, 42, 51, 56, 60-66 |

PUBLISHED AT COLUMBUS, OHIO, BY THE

OHIO STATE UNIVERSITY

and the

OHIO ACADEMY OF SCIENCE

*Issued Bi-monthly, January to December (six numbers)*

*Entered at the Post-Office in Columbus, Ohio, as second-class matter*

# THE OHIO JOURNAL OF SCIENCE

## EDITORIAL STAFF

LAURENCE H. SNYDER..... Editor-in-Chief  
BERNARD S. MEYER..... Business Manager

|                      |            |                       |               |
|----------------------|------------|-----------------------|---------------|
| J. B. PARK.....      | Agronomy   | J. ERNEST CARMAN..... | Geology       |
| R. A. KNOUFF.....    | Anatomy    | W. H. SHIDELER.....   | Paleontology  |
| H. H. M. BOWMAN..... | Botany     | C. W. JARVIS.....     | Physics       |
| R. C. BURRELL.....   | Chemistry  | F. A. HITCHCOCK.....  | Physiology    |
| E. LUCY BRAUN.....   | Ecology    | J. P. PORTER.....     | Psychology    |
| F. C. WAITE.....     | Embryology | E. R. HAYHURST.....   | Public Health |
| G. D. HUBBARD.....   | Geography  | R. V. BANGHAM.....    | Zoology       |

## ADMINISTRATIVE BOARD

For Ohio State University

F. C. BLAKE  
E. N. TRANSEAU

For Ohio Academy of Science

E. L. RICE  
C. G. SHATZER

## THE OHIO JOURNAL OF SCIENCE

Is published jointly by the Ohio State University and the Ohio Academy of Science.

**MANUSCRIPTS.** Preference will be given to original manuscripts pertaining to Ohio Science. Articles covering not more than fifteen to twenty pages of the JOURNAL are preferred, although longer articles may be printed. Contributors need not be associated with either the Ohio State University or the Ohio Academy of Science, nor need their contributions deal with the State of Ohio. Manuscripts are subject to the approval of the editor.

**ILLUSTRATIONS.** When illustrations form part of an article they should preferably accompany the manuscript. If their size does not make this convenient, they should be sent in a separate package properly labeled as to the article for which they are intended. Either half-tones or zinc etchings can be published, half the cost of the cuts being borne by the contributor. They are made under the supervision of the JOURNAL and a bill is then rendered by the JOURNAL to the contributor. All illustrations should be made with a view to having them appear within the limits of the printed form.

**PROOF.** Galley proof will be sent to contributors. It should be returned promptly in order to avoid any disappointment in the matter of publication. Care should be taken to furnish a correct mailing address. The JOURNAL will not assume responsibility for loss of manuscript or proof in the mails.

**REPRINTS.** A price list for reprints and an order form is sent with proof. This should be returned with the proof. No reprints are furnished free of charge. Shipments will be made upon payment of bills rendered for reprints and cuts.

**SUBSCRIPTIONS.** The Annual subscription is \$2.00, (foreign countries, \$2.50). Single numbers, 50 cents. One volume appears each year and contains six numbers.

By special arrangement with the OHIO ACADEMY OF SCIENCE, the OHIO JOURNAL OF SCIENCE is sent without additional expense to all members of the ACADEMY who are not in arrears for annual dues.

The first fifteen volumes of the old OHIO NATURALIST may be obtained at \$1.00 per volume.

**MAILING ADDRESS.** All manuscripts, illustrations, proofs and correspondence dealing with editorial matters, should be addressed to DR. LAURENCE H. SNYDER, Botany and Zoology Building, Ohio State University, Columbus, Ohio.

All remittances, correspondence dealing with subscriptions, reprints and other business matters should be addressed to DR. BERNARD S. MEYER, Botany and Zoology Building, Ohio State University, Columbus, Ohio. Failure to receive any number of the JOURNAL must be reported within three months of date of issue if claim is to be recognized.