ISSN 0073-6767

A S 1885

Proceedings of the

Indiana Academy of Science

Volume 100

Number1-2

The PROCEEDINGS OF THE INDIANA ACADEMY OF SCIENCE is a quarterly journal dedicated to promote scientific research and the diffusion of scientific information; to encourage communication and cooperation among scientists: and to improve education in the sciences.

EDITOR

Gary E. Dolph Indiana University at Kokomo 2300 S. Washington St. Kokomo, Indiana 46904-9003

EDITORIAL BOARD

Hans O. Andersen Indiana University

Rita Barr Purdue University

Ernest E. Campaigne Indiana University

William R. Clark Ball State University

Donald R. Cochran Ball State University

Robert F. Dale Purdue University

Kara W. Eberly St. Mary's College

Uwe J. Hansen Indiana University

Daryl R. Karns Hanover College

N. Gary Lane Indiana University

Paul C. MacMillan Hanover College Wilton N. Melhorn Purdue University

Paul E. Rothrock Taylor University

Alfred R. Schmidt Rose-Hulman Institute of Technology

Thomas P. Simon United States Environmental Protection Agency

Paul M. Stewart Indiana University-Purdue University at Fort Wayne

Michael Tansey Indiana University

Robert D. Waltz Indiana Department of Natural Resources

J. Dan Webster Hanover College

Harmon Weeks Purdue University

John O. Whitaker, Jr. Indiana State University

EXECUTIVE COMMITTEE

Cornelius W. Pettinga

President

1010 E. 86th Street, Indianapolis

C.V. Lovell

President-elect

Purdue University

James D. Haddock

Secretary

Indiana University-Purdue University at

Fort Wayne

Edward L. Frazier

Treasurer

5007 W. 14th Street, Speedway

Gene Kritsky

Director of Public Relations

College of Mount St. Joseph, Mount

St. Joseph, Ohio

Gary E. Dolph

Editor of The Proceedings

Indiana University at Kokomo

Wendell F. McBurney

Immediate Past President

Indiana University-Purdue University

at Indianapolis

Donald R. Winslow

Executive Officer

1210 Elliston Drive, Bloomington

EXCHANGE ITEMS: Items sent in exchange for the the *Proceedings*, and correspondence concerning exchange arrangements, should be sent to the Indiana Academy of Science, John S. Wright Memorial Library, 140 North Senate Avenue, Indianapolis, Indiana 46204.

REPRINTS AND PERMISSIONS: Write to Executive Officer, 1210 Elliston Drive, Bloomington, Indiana 47401.

EDITORIAL CORRESPONDENCE: All matter for publication should be addressed to the Editor.

PROCEEDINGS OF THE INDIANA ACADEMY OF SCIENCE

Founded 29 December 1885

Volume 100 Number 1-2 1991

Published at Indianapolis, Indiana January 23, 1992

PROCEEDINGS OF THE INDIANA ACADEMY OF SCIENCE

Volume 100, No. 1-2 (1991)

CONTENTS

ANTHROPOLOGY	
Heilman, J., M. Martin Neely, and D.C. Cook. TRAUMA IN LATE WOOD-LAND CRANIA FROM ILLINOIS	1
BOTANY	
Marks, G.C. OLD CORN SEED (FRUIT) VIABILITY	11
Maxwell, R.H., G. Emmert, and J. H. Martin. INDIANA PLANT DISTRIBU-	
TION RECORDS	15
CELL BIOLOGY	
Lehman, K.A., M.A. Lehman, and T.A. Cole. MOUSE EMBRYO VITRIFI-CATION	19
ECOLOGY	
Clifford, L.A., L.L. Garber, and V.L. Riemenschneider. WATER QUALITY	
	23
SURVET OF SPICER LARE, ST. JOSEFFI COUNTY, INDIANA	23
ENTOMOLOGY	
Foster, R.E. and T.J. Gibb. PROBLEMS IN COLORADO POTATO BEE-	
TLE (COLEOPTERA: CHRYSOMELIDAE) MANAGEMENT IN INDI-	
ANA	31
Gibb, T.J. SEED PREDATORS OF VELVETLEAF (MALVACEAE: ABUTI-	-
LON THEOPHRASTI) WEED	39
Kritsky, G. and F.N. Young. OBSERVATIONS ON PERIODICAL CICA-	
DAS (BROOD XIII) IN INDIANA IN 1990	45
SCIENCE EDUCATION	
Schrock, J.R. TRENDS AND INITIATIVES IN SCIENCE EDUCATION IN	
INDIANA, 1988	49
INDIANA, 1700	7)
ZOOLOGY	
Bandoli, J.H., J.T. Lanigan III, and T.A. Sheckles. REPRODUCTION IN	
THE SPOTTAIL DARTER IN INDIANA: USE OF ARTIFICIAL NEST	
SITES	65
Richards, R.L. THE ALTON MAMMOTH (MAMMUTHUS COLUMBI	
JEFFERSONII) LOCALITY, CRAWFORD COUNTY, SOUTH-CEN-	
TRAL INDIANA	77
Whitaker, J.O., Jr. ADDITIONS TO THE LIST OF ECTOPARASITES OF	
THE MAMMALS OF INDIANA	91

