

PROCEEDINGS  
*of the*  
Indiana Academy  
*of Science*

*Founded December 29, 1885*

•

Volume 67  
1957

•

RICHARD A. LAUBENGAYER, Editor  
Wabash College  
Crawfordsville, Indiana

•

Spring Meeting  
May 10-11  
Turkey Run State Park

Fall Meeting  
October 17-19, 1957  
DEPAUW UNIVERSITY

Published at Indianapolis, Indiana  
1958

1. The permanent address of the Academy is the Indiana State Library.
2. **Instructions for Authors** appear at end of this volume, p. 324.
3. **Exchanges.** Items sent in exchange for the Proceedings and correspondence concerning exchange arrangements should be addressed:  
John Shepard Wright Memorial Library of the Indiana Academy of Science.  
c/o Indiana State Library  
Indianapolis 4, Indiana.
4. **Proceedings** may be purchased through the State Library at \$3.00 per volume.
5. **Reprints of technical papers** can often be secured from the authors. They cannot be supplied by the State Library nor by the officers of the Academy.
6. The Constitution and By-Laws reprinted from v. 62 and the Membership List reprinted from v. 61, are available to members upon application to the Secretary. Necrologies reprinted from the various volumes can be supplied relatives and friends of deceased members by the Secretary.
7. Officers whose names and addresses are not known to correspondents may be addressed care the State Library. The address of the editor of the present volume is Biology Department, Wabash College, Crawfordsville, Ind.

Papers published in the Proceedings of the Indiana Academy of Science are abstracted or indexed in appropriate services listed here:

Annotated Bibliography of Economic Geology  
 Bibliography of Agriculture  
 Bibliography of North American Geology  
 Biological Abstracts  
 Chemical Abstracts  
 Chemisches Zentralblatt  
 Current Geographical Publications  
 Geological Abstracts  
 Mathematics Reviews  
 Metallurgical Abstracts  
 Psychological Abstracts  
 Review of Applied Entomology  
 Zoological Record

## TABLE OF CONTENTS

	Page
Officers and Committees for 1957.....	6
Minutes of the Spring Meeting.....	9
Minutes of the Executive Committee.....	10
Minutes of the General Session.....	17
Complete Membership of the Year 1957.....	19
Junior Academy of Science.....	49
Necrology .....	56
Presidential Address—WILLIS H. JOHNSON.....	73
<b>Anthropology</b>	
Abstracts of papers not published in full.....	90
F. X. GROLLIG—Pottery ornaments from Rio Tapajós, Brazil.....	92
R. B. JOHNSTON—The findings after two years of work at Serpent Mounds Site, Rice Lake, Ontario.....	96
<b>Bacteriology</b>	
Abstracts of papers not published in full.....	98
<b>Botany</b>	
Abstracts of papers not published in full.....	101
A. T. GUARD and S. N. POSTLETHWAIT—Relation of the formation of annual rings to multiple flushes of growth in several species of <i>Quercus</i> .....	104
R. P. DANIELS and C. L. PORTER—A basidiomycete which sporulates in artificial culture .....	107
<b>Chemistry</b>	
Abstracts of papers not published in full.....	109
D. L. McMASTERS and W. B. S3ce(\$—High-speed calculation of least-squares best consecutive formation constants of metal-ion complexes using an electronic computer.....	111
D. L. McMASTERS and W. B. SCHAAP—High-speed calculation of least-squares best half-wave potentials and slopes of polaro- graphic waves using an electronic computer .....	117
A. MOFFAT and H. HUNT—A method of calculating the heats of com- bustion of organic compounds .....	122
R. F. BABCOCK and R. B. FISCHER—Aging of reagent solutions in precipitation processes .....	128
<b>Entomology</b>	
Abstracts of papers not published in full.....	135
C. A. SMITH, JR.— <i>Drosophilidae</i> found in tomato fields in Indiana..	138
D. L. SCHUDER—Some new insect pests of trees and shrubs in In- diana .....	145

	Page
J. V. OSMUN—Insects and other arthropods of economic importance in Indiana in 1957.....	150
C. A. MULLIN—Location of larvae of the European corn borer, <i>Pyrausta nubilalis</i> (Hbn.), in dent corn .....	155
B. L. MONTGOMERY—The anthophilous insects of Indiana. 2. A preliminary list of the diptera collected from blossoms.....	160
F. N. YOUNG—A large aggregation of larval millipeds, <i>Zinaria butleri</i> (McNeill), in Brown County, Indiana .....	171
G. E. LEHKER—The ten most important plant feeding pests in Indiana .....	173

#### Geology and Geography (including Soil Science)

Abstracts of papers not published in full.....	175
T. G. PERRY—Effect of geologic processes on economic resources of late paleozoic rocks of Indiana .....	178
S. S. VISHNER—Indiana's probable climate during the glacial period	183
C. L. BIEBER—Fossil cephalopods of Mississippian Age, Central Putnam County, Indiana .....	185
JOHN FRASER HUNT—Age pyramids for Indiana's counties and larger cities .....	187
W. N. MELHORN—Revision of Mississippian-Devonian boundary in White and Benton Counties, Indiana .....	194
JOHN FRASER HUNT and P. P. COSTAS—Interurban distances in Indiana: an evaluation of techniques .....	199
H. H. MURRAY—Transgressions and regressions of early allegheny (Pennsylvanian) seas in Indiana .....	205
YI-FU TUAN—The misleading antithesis of penckian and davisian concepts of slope retreat in waning development.....	212
L. GUERNSEY—Reclamation of strip-mined lands in Vigo County, Indiana .....	215
R. W. LOUNSBURY and R. L. SCHUSTER—Preliminary report on the petrology of Southampton Island, Northwest Territory.....	225

#### Soil Science (Affiliate)

Abstracts of papers not published in full.....	232
S. R. WILKINSON, W. G. DUNCAN and A. J. OHLROGGE—The influence of radioactive fallout on agronomic field experimentation with radioisotopes .....	234
H. MOTTO and J. L. WHITE—Specific surface and reaction rate of calcitic limestone in neutralizing soil acidity .....	237

#### History of Science

Abstract of paper not published in full.....	243
D. DENUYL—Forests of the lower Wabash Bottomlands during the period 1870-1890 .....	244
S. S. VISHNER—Aspects of the wiser use of Indiana's soils.....	249
W. J. TINKLE—The extent of effectiveness of natural selection....	251

	Page
H. H. MICHAUD—History of the early development of game regulations in Indiana .....	256
R. E. GIRTON—The teaching of plant physiology at Purdue in the nineteenth century .....	260
L. A. SCHAAL—Early weather records in Indiana .....	265
J. E. CANRIGHT—History of Paleobotany in Indiana .....	268

#### Mathematics

Abstracts of papers not published in full .....	274
---	-----

#### Physics

Abstracts of papers not published in full .....	277
C. S. MORRIS—Physics research in a small institution .....	282

#### Plant Taxonomy

Abstracts of papers not published in full .....	286
L. J. KING—On the origin of the term "weed" .....	287
C. A. MARKLE—Contributions to the flora of Wayne County, III. ....	290
J. S. PELTON—Evidence of introgressive hybridization and mutation in certain Colorado populations of <i>Aquilegia</i> .....	292

#### Psychology

Abstracts of papers not published in full .....	297
---	-----

#### Zoology

Abstracts of papers not published in full .....	300
C. F. LYTLE—The records of freshwater medusae in Indiana .....	304
F. J. ZELLER—The effect of stilbestrol on the ovary of the immature white leghorn pullet .....	309
R. E. SMITH, W. R. BRENEMAN and M. CORMACK—The action of lithosperm in mice .....	312
J. B. COPE, R. E. MUMFORD and N. WILSON—Some observations on a summer colony of <i>Myotis lucifugus</i> .....	316
C. J. GOODNIGHT—Two representatives of a tropical suborder of <i>Opilionids</i> (Arachnida) found in Indiana .....	322

#### Appendix

Instructions for contributors .....	324
Index to Volume 67 .....	326

## OFFICERS AND COMMITTEES

### OFFICERS

President	W. H. JOHNSON, Wabash College
Vice-President	W. A. DAILY, Eli Lilly & Company
Secretary	H. E. CRULL, Butler University
Treasurer	F. J. WELCHER, Adult Ed. Center, Ind. Univ.
Editor	R. A. LAUBENGAYER, Wabash College
Press Secretary	J. A. CLARK, Dept. of Cons., Indianapolis

### DIVISIONAL CHAIRMEN

Anthropology	W. R. ADAMS, Indiana University
Bacteriology	E. W. SHRIGLEY, Indiana University
Botany	A. A. LINDSEY, Purdue University
Chemistry	R. B. FISCHER, Indiana University
Entomology	H. O. DEAY, Purdue University
Geology & Geography	T. G. PERRY, Indianapolis, Indiana
History of Science	D. DEN UYL, Purdue University
Mathematics	To be appointed
Physics	M. CORRELL, DePauw University
Plant Taxonomy	J. E. PELTON, Butler University
Psychology	K. M. MICHELS, Purdue University
Zoology	E. WILLIAMS, Wabash College

### EXECUTIVE COMMITTEE

(Past Presidents, Current Officers, Divisional Chairmen,  
and Chairmen of Standing Committees)

Adams, W. R.	Edwards, P. D.	Michaud, H. H.
Armacost, R. R.	Enders, H. E.	Mitchell, A.
Breneman, W. R.	Fischer, R. B.	Morgan, W. P.
Christy, O. B.	Garner, M.	Payne, F.
Clark, J. A.	Girton, R. E.	Pelton, J. E.
Cleland, R. E.	Johnson, W. H.	Perry, T. G.
Coats, N. M.	Just, T. K.	Porter, C. L.
Correll, M.	Laubengayer, R. A.	Powell, H. M.
Crull, H. E.	Lefler, R. W.	Shrigley, E. W.
Cummings, E. R.	Lilly, Eli	Visher, S. S.
Daily, W. A.	Lindsey, A. A.	Wallace, F. N.
Davis, J. J.	Mackell, J. F.	Weatherwax, P.
Deay, H. O.	Markle, C. A.	Welch, W. H.
Degering, E. F.	Markle, M. S.	Welcher, F. J.
Den Uyl, D.	Mellon, M. G.	Williams, E. C.
Edington, W. E.	Meyer, A. H.	Youse, H. R.
Edmondson, F. K.	Michels, K. M.	Yuncker, T. G.

## BUDGET COMMITTEE

(President, Secretary, Treasurer, Editor, Chairmen of Junior Academy, Library, Program, and Relation of Academy to State)

W. H. Johnson, H. E. Crull, F. J. Welcher, R. A. Laubengayer, H. H. Michaud, N. M. Coats, T. G. Yuncker, F. N. Wallace.

## COMMITTEES ELECTED BY THE ACADEMY

**Trustees of the Academy Foundation** (term 4 years): Chairman, Ward J. Rice, Eli Lilly and Company (term expires 1960); J. E. Seybert, Eli Lilly and Company (term expires 1961).

**Bonding of Trustees** (elected annually): Chairman, Scott McCoy, Technical H. S., Indianapolis; W. P. Morgan.

**Research Grants** (term 5 years): Chairman, T. G. Yuncker, DePauw University (term expires 1959); W. H. Johnson (1957); M. G. Mellon (1960); Paul Weatherwax (1961); J. F. Mackell (1958); W. H. Johnson and H. E. Crull (*ex officio*).

## STANDING COMMITTEES

(Appointed by the President)

**Auditing:** Chairman, W. P. Morgan, Ind. Central Col.; S. E. Elliott.

**Biological Survey:** Chairman, C. A. Markle, Earlham College; F. K. Daily, D. G. Frey, C. J. Goodnight, H. H. Michaud, S. A. Minton, Winona H. Welch, F. N. Young.

**Fellows:** Chairman, W. R. Breneman, Zoology, Indiana University; A. T. Guard, Botany; H. M. Powell, Bacteriology; C. F. Voeglin, Anthropology; M. G. Mellon, Chemistry; H. O. Deay, Entomology; T. F. Barton, Geol. and Geog.; M. S. Markle, Hist. of Science; P. D. Edwards, Mathematics; J. F. Mackell, Physics; F. K. Daily, Plant Taxonomy; H. H. Remmers, Psychology.

**Index:** Chairman, R. A. Laubengayer, Wabash College; Nellie Coats; F. N. Wallace.

**Indiana Talent Search:** Chairman, R. W. Lefler, Purdue University; L. H. Baldinger; P. D. Edwards; T. W. Torrey; C. A. Markle; H. H. Michaud and W. H. Johnson (*ex officio*).

**Invitations:** Chairman, Winona H. Welch, DePauw University; E. L. Haenisch; D. F. Johnson.

**Junior Academy:** Chairman, H. H. Michaud, Purdue University; N. E. Adams; R. Cooper; J. Cope; S. D. Gerking; P. E. Klinge; Lola Lemon; R. McCougall; R. E. Martin; R. E. Niswander; M. Stork; R. W. Lefler and W. H. Johnson (*ex officio*).

**Library:** Chairman, N. M. Coats, State Library; M. G. Mellon, Eli Lilly.



**Membership:** Chairman, H. R. Youse, DePauw University; R. M. Cable; J. O. Cottingham; Lois Farquharson; M. Garner; W. H. Headlee; Z. Hurlbut; R. L. Kent; W. G. Kessel; E. Kintner; R. G. Larson; R. E. Martin; L. S. McClung, D. E. Miller; N. E. Pearson; J. Pelton; R. J. Sheehan; E. C. Williams.

**Necrologist:** W. E. Edington, DePauw University.

**Nominating:** Chairman, R. E. Girton, Purdue University; A. H. Meyer; O. B. Christy.

**Program:** Chairman, T. G. Yuncker, DePauw University; D. J. Cook; F. D. Fuller; H. L. Hawkins; C. B. Heiser; J. A. Madison; A. D. Sprague; H. R. Youse.

**Publication of Proceedings:** Chairman, R. A. Laubengayer, Wabash College; A. A. Lindsey; F. N. Young.

**Publicity:** Chairman, J. A. Clark, Dept. Cons.; D. C. Peaslee; R. C. Starr.

**Relation of Academy to State:** Chairman, F. N. Wallace, Dept. Cons.; J. A. Clark; Eli Lilly; H. J. Reed.

**Representative on Council of the AAAS:** F. K. Edmondson, Indiana University.

**Representative on the Indiana Committee for Pine Hills of the Nature Conservancy:** A. A. Lindsey, Purdue University.

**Resolutions:** Chairman, R. E. Cleland, Indiana University; A. T. Guard; P. D. Edwards.

**Science Education:** Chairman, R. R. Armacost, Purdue University; Catherine W. Dale; P. E. Klinge; R. W. Lefler; W. H. Johnson (*ex officio*).

**Special Committee on Undergraduate Research in Biology:** Chairman, M. Garner, Earlham College; J. Barton; M. Bernard; W. W. Bloom; W. Brett; R. E. Cleland; R. H. Cooper; C. V. Finnegan; T. Hall; M. Hodson; Z. Hurlbut; J. Karling; R. L. Kent; L. S. McClung; R. E. Niswander; N. E. Pearson; A. Reynolds; T. W. Torrey; V. G. Wood; J. D. Webster; H. R. Youse and W. H. Johnson (*ex officio*).

May 20, 1957



## SPRING MEETING

TURKEY RUN STATE PARK

May 10-11, 1957

4:30 p.m.

Treasurer Frank Welcher gave no formal report except as continued from the last fall meeting. An estimated \$1,500 has been received since dues statements were mailed out. About 25 resignations were reported, most of which were from out of state.

Editor R. A. Laubengayer gave a progress report in which he stated that galley proofs were going out in June or July. Three per cent has been taken out of the state appropriation for the publication of the Proceedings, but it may be returned.

Librarian Nellie M. Coats reported that the Lilly Endowment, Inc. has presented \$6,400 to the library to fill files and catch up with binding. An exhibit case will be obtained and installed. The secretary was instructed to thank the Lilly Endowment, Inc. as an expression of thanks from the business session.

Press Secretary James Clark gave a general report.

There was no formal report from Program Chairman T. G. Yuncker.

Membership Chairman H. R. Youse gave a report. Dr. Yuncker suggested a family membership for husband and wife. A discussion followed.

Invitations Committee chairman Winona Welch said that the committee needed an invitation for the fall meeting in 1958.

Under new business, a check was received for \$50 from a benefactor in California. There was a report by the president on the Special Committee on Undergraduate Research in Biology. Dr. Lefler, Talent Search, is leaving the country for a year or more. A new chairman will be needed and also more funds. Seventy persons signed the roll.

H. E. CRULL, Secretary

Approved 10-17-57

## DINNER MEETING

May 10, 1957

6:30 C. D. T.

Turkey Run Inn

Words of welcome were given by the president W. H. Johnson and an introduction of officers. Out-of-staters were introduced. There were two present. There was a report of the afternoon executive meeting. Resolutions expressing thanks to the park management and program committee for a fine meeting were introduced and passed unanimously. Field trips were announced.

H. E. CRULL, Secretary

# MINUTES OF THE EXECUTIVE COMMITTEE

DEPAUW UNIVERSITY, GREENCASTLE, INDIANA

October 17, 1957

The Executive Committee of the 73rd Session was called to order by President Johnson in Room 221, DePauw Student Building, at 7:30 p.m.

The minutes of the Spring Meeting held at Turkey Run State Park were read and approved.

**Treasurer.** Dr. Frank Welcher gave the following financial report for the time period January 1, 1957 to December 31, 1957. This report and those for 1955 and 1956 have been audited. The 1955 and 1956 financial reports were not received by Dr. W. P. Morgan, Chairman of the Auditing Committee, until June 19, 1957.

### Receipts

1. Balance on hand January 1, 1957.....	\$1,806.81
2. Dues and initiation fees.....	3,039.00
3. Publications sold.....	167.62
4. Authors' reprints, Vol. 63.....	9.66
5. Authors' reprints, Vol. 66.....	328.92
6. Designated gifts.....	6,500.00
7. Talent Search.....	3,000.47

\$14,852.48

### Disbursements

1. Editor, Vol. 66.....	\$ 258.79
2. Expenses of President.....	10.00
3. Expenses of Secretary.....	93.84
4. Expenses of Treasurer.....	182.41
5. Stationery.....	139.48
6. Talent Search.....	1,256.40
7. Program Committee.....	361.85
8. Research grants.....	150.00
9. Secretary of State.....	1.00
10. Mailing Proceedings, Vol. 66.....	50.83
11. Returned Check.....	4.00
12. Expenses of six officers as directed by action of 1947 Executive Committee.....	125.00
13. Academy Conference.....	12.00
14. Designated gift.....	50.00
15. Reprints, Vol. 65.....	941.40
16. John Shepard Wright Memorial Library.....	638.96
17. Expenses of Nominating Committee.....	5.67
18. Junior Academy of Science.....	19.55
19. Publication of Proceedings, Vol. 64.....	8.27
20. Publication of Proceedings, Vol. 65.....	1,073.10

\$ 5,382.55

9,469.93

\$14,852.48

The balance on hand December 31, 1957, includes \$5,761.04 in the John Shepard Wright Memorial Library fund.

FRANK J. WELCHER,  
Treasurer

Received material for audit April 9, 1958. Records checked and found correct.

W. P. Morgan, Chairman Audit Committee

**Editor**—Richard A. Laubengayer: The current Volume 66, 1957, of the Proceedings was mailed early in September. 1,200 hard bound and 400 soft bound copies were ordered from the printer. The volume is a fairly large one, larger than last year's. The volumes were mailed through the courtesy of the State Library, Miss Coats in charge. Because of the increase in printing costs, the Academy will have to contribute to the printing costs. This year the editor will abide strictly to the rule of eligibility and the deadline for sending in of manuscripts. After the deadline, no papers will be accepted. Because of the increase in printing cost, the Academy must be willing to help financially or else face small volumes. This coming year will be a difficult one because of the printing of the entire membership list. Plans should be made for the ten-year index both financially and otherwise. Review of the reprint situation in regard to the cost in particular. The Soils division was put in with Geology-Geography division. There was considerable discussion regarding the cost of reprints. Suggestion was made of possible subsidization.

**Trustees of the Academy. Report by Harry E. Crull:**

October 1, 1956 Beginning Balance.....	\$ 1,155.08
October 1, 1956, to September 30, 1957	
Total Receipts .....	403.67
October 1, 1956, to September 30, 1957	
Bank Fees .....	\$ 20.18
Transferred to Principal .....	948.36
Interest .....	5.70
Total Disbursement .....	974.24
September 30, 1957, Ending Cash Balance	584.51
Bonds and shares of stock—total carrying value .....	14,360.36

**Press Secretary**—James Clark: Announcement of meetings have been given to newspapers, radio and scientific magazines. Frank White devoted his column, which appears in newspapers over the state, to a paper on Redbud given at last year's meeting. Miss Coats deserves thanks from the Academy and myself for the excellent publicity concerning the Lilly donation to the Academy library.

**Research Grants Committee**—T. G. Yuncker: Two grants were made during the year. One to Dr. Carrolle Markle of Earlham for \$100 to aid her in continuing her study of the flora of that region, and one to Dr. Welch to help her in her work on the Hookeriaceae and other mosses. We point out the publication of Dr. Welch's Mosses of Indiana by the Department of Conservation. This work has been aided by grants from the Academy and is an example of the good they are doing. There are no applications for any grants.

**Nominations Committee**—Raymond T. Girton: Chairman of the Bonding of Trustees Committee, Scott McCoy (biologist), Technical

High School, Indianapolis; second member, R. E. Cleland (botanist), Indiana University. Member of the Research Grants Committee, J. F. Hart (geographer), Indiana University (1962).

**Fellows Committee**—W. R. Breneman: The following persons are recommended to the Executive Committee of the Academy for nomination and election as Fellows: E. J. Asher, Department of Psychology, Purdue University; G. B. Bachman, Department of Chemistry, Purdue University; William Bloom, Department of Biology, Valparaiso University; Charles Brumfiel, Department of Mathematics, Ball State University; J. E. Christian, Department of Pharmacy, Purdue University; Sears Crowell, Department of Zoology, Indiana University; Donald Hamilton, Agricultural Research Service, Vincennes, Indiana; Georg K. Neumann, Department of Anthropology, Indiana University; John V. Osmun, Department of Entomology, Purdue University; Philip Peak, School of Education, Indiana University; Norman Pounds, Department of Geography, Indiana University; K. M. Seymour, Department of Chemistry, Butler University.

**Biological Survey**—C. A. Markle: Reports have been submitted on work on flora and fauna of Indiana, indicating whether in progress, completed but not published, or published in 1956-57. Questionnaires were sent to heads of Departments of Biological Sciences in the colleges and universities of the state asking what had been completed or published during 1956-57. The publications list and summary or work in progress follows:

#### Publications of 1956-57 Dealing with Flora and Fauna of Indiana

<b>Biotic Group</b>	<b>Published Work, author, etc.</b>
Algae	A Rare Dinoflagellate New to Indiana. William A. Daily. Proc. Ind. Acad. Sci. 66:300 (1957)
Fungi	Higher Fungi of Marion County, Indiana, VIII, John O. Cottingham. Proc. Ind. Acad. Sci. 66:305 (1957)
Bryophytes	Mosses of Indiana. Winona H. Welch. Published by Division of Forestry, Ind. State Dept. of Conservation, 1957
Vascular plants	Contributions to the Flora of Wayne County, Indiana, II, Carrolle A. Markle. Proc. Ind. Acad. Sci. 66:301-304 (1957)
Insecta	The orders Protura and Diplura in Indiana. Dr. L. Chandler, Proc. Ind. Acad. Sci. 66:112-114 (1957)
	Records of Indiana Coleoptera, Dr. N. M. Downie, Proc. Ind. Acad. Science 66:115-125 (1957)
	A preliminary annotated list of the Apoidea, Dr. B. Elwood Montgomery, Proc. Ind. Acad. Sci. 66:125-140 (1957)
	Record of Zoraptera in Indiana, Riegel, G. T. and Koestner, E. J. Amer. Midl. Nat. 57(2):512 (1957)
	Some ectoparasites from Indiana mammals. Nixon Wilson J. Mamm. 38(2):281-282. (May 1957)
	Unusual abundance of Sandalus in southern Indiana. Frank N. Young. Coleopterist's Bulletin 9(5):74 (1955)
	Variations in temperature in small aquatic situations (includes notes on Indiana aquatic Coleoptera). Young, Frank N. and J. R. Zimmerman, Ecology 37(3):609-611 (1956)

<b>Biotic Group</b>	<b>Published Work, author, etc.</b>
Insecta	Euphydras Phaeton in southern Indiana. Frank N. Young, Lepidopterist News 10(1-2):46 (1956) Orthoptera of relict prairie fragments in Greene County, Indiana. Proc. Ind. Acad. Sci. 65:111-115 (1956). Young, Frank N. and I. J. Cantrall A preliminary key to the species of Hydrovatus of the Eastern United States (includes Indiana species of Coleoptera) Frank N. Young. Coleop. Bull. 10(3):53-54 (1956)
Fishes	Ecology of the central mudminnow, Umbra Limi. Richard S. Peckham and Clarence F. Dineen. Amer. Mid. Nat. 58(1):222-231 (1957)
Amphibians and Reptiles	Analysis of Post-Wisconsin biogeography of the prairie peninsula based on distributional phenomena among terrestrial vertebrate populations. Philip W. Smith. Ecology 38:205-18 (1957) Relationships of the redbacked and zigzag Plethodon in the west. Thurow, Gordon R. Herpetologica 13:91-99 (1957)

### Work in progress or completed 1956-57 dealing with Flora and Fauna of Indiana

<b>Biotic Group</b>	<b>Specific Title or Coverage, and workers</b>
Algae	Planktonic coccoid Myxophyceae of Indiana, W. A. Daily
Vascular Plants	Grasses (Tripsaceae). Lois Farquharson Helianthus monograph. Charles B. Heiser Desmodium, variation in selected species. Jack Humbles Floodplain vegetation of the Wabash and Tippecanoe Rivers. A. A. Lindsey Contributions to the Flora of Wayne County, Indiana. Carrolle A. Markle Sedges of Indiana. Mrs. Helene Starcs
Annelida	The earthworms of Indiana. Dr. L. Chandler Some freshwater oligochaetes and biology of local opilionids. Dr. C. J. Goodnight Earthworms of Wayne County. James Joyner
Insecta	The life history of Malitoma taurea. Dr. L. Chandler The social wasps of Indiana. Dr. L. Chandler The sand wasps of Indiana. Dr. L. Chandler The bees of Indiana (embryonic development). Dr. L. Chandler The cuckoo-wasps of Indiana (embryonic development) Dr. L. Chandler The ecological life history of Halictus ligatus Say with notes on related species. Dr. L. Chandler The life history of Melissodes bimaculata Lepeletier. Dr. L. Chandler. Records of Indiana Coleoptera. Dr. N. M. Downie The Anthophilous Insects of Indiana—additions to lists of Apoidea and Diptera; other Hymenoptera and other orders. Dr. B. Elwood Montgomery The Odonta of Indiana. Dr. B. Elwood Montgomery



<b>Biotic Group</b>	<b>Published Work, author, etc.</b>
Insecta	<p>The insects of the soil; pond and lake margins and bottoms. Dr. B. Elwood Montgomery</p> <p>The insect fauna of the black locust in Indiana. Dr. Elwood Montgomery</p> <p>An annotated list of the flower-visiting Diptera. Dr. B. Elwood Montgomery</p> <p>Taxonomic and ecological survey of the mosquitoes of Indiana specimens deposited in the Purdue Entomology Collection. Frederick Schmidt, cooperating with the Department of Entomology, Purdue University</p> <p>Revision of the Genus <i>Hesperotittix</i>. Dr. Herbert S. Wallace</p> <p>The ectoparasites of Indiana mammals with especial reference to those of bats. Nixon Wilson</p> <p>Studies on seasonal distribution, habitat and interspecific competition in the genus <i>Laccophilus</i>. (Study of Indiana species of aquatic Coleoptera). J. R. Zimmerman</p>
Reptiles and Amphibians	<p>A distributional summary of the herpetofauna of Illinois and Indiana. S. A. Minton and Philip W. Smith</p> <p>Another report of <i>Cemophora</i> from Indiana and a note on egg-laying. S. A. Minton and H. B. Bechtel</p>
Mammals	<p>Indiana Bats and their distribution. James B. Cope</p> <p>The mammals of Ripley County. Dwight Lindsey</p>

The conclusion was reached that this information should in the future be made available through the Proceedings.

**Library Committee**—Nellie M. Coats: In May, 1957, a report was made upon a grant of \$6,400 by Lilly Endowment, Inc. to complete certain files of library materials, to bind some of the earlier volumes, and to purchase a display case to be used to illustrate the library's geographic and subject range and to place its name in greater prominence. Dealers in American and foreign periodicals have been asked to quote prices on selected missing items but to date no bids have been received. It is thought to be difficult to locate the desired numbers, all of which are long since out of print. A handsome bronze display case was purchased at a cost of \$592.00. The case has been placed in the entrance lobby of the Indiana Library and Historical Building where it will readily be seen by visitors to any part of the building. On October 3, officers of the Academy, the Director of the State Library, and members of its staff most directly concerned assembled to greet Mrs. John S. Wright for whose husband the Academy is named, to note the 50th year of an arrangement for its care Mr. Wright had made with the State Library, and to express gratitude to the Lilly Endowment for the grant. The Academy Proceedings, V 66, 1956, was published August 22, 1957. 855 copies have been mailed to members. A few single volumes of the Proceedings have been sold from time to time, an unusual sale in 1957 was that of 43 volumes to Kraus Periodicals. Among notable acquisitions was a gift of 60 volumes of a Czech mathematical journal sent from Prague and valued at \$200. At the May meeting it was pointed out that articles in the Proceedings are cited in some eleven well-known abstracting and indexing publications such as Chemical Abstracts. To these has been added the Zoological Record as suggested by a member of the Executive Committee.

The list of these services will appear on the verso of the title page of the next issue of the Proceedings.

**Invitations Committee**—Winona Welch: Marian College of Indianapolis, Indiana, has invited the Academy to meet on the Campus in the fall of 1958. The Executive Committee voted to accept the invitation.

**Membership Committee**—H. R. Youse: A total of 47 members have joined the Academy this year.

**Program Committee**—H. R. Youse for Dr. Yuncker: All in readiness for Friday and Saturday. 130 reservations have been made for the dinner.

**Junior Academy**—H. H. Michaud: The twenty-fourth annual meeting of the Indiana Junior Academy of Science was held Saturday, October 13, 1956, in Jordan Hall of Indiana University, Bloomington, Indiana. Approximately 250 high school students, teachers, and guests registered at the meeting. The day's program consisted of career conferences conducted by representatives of the science faculty of Indiana University, visits to the campus science laboratories, exhibits of science projects and papers by high school science club members. Included among the exhibits were a television set adapted for short-wave reception, a mineral collection, a demonstration study of paramecia, an automatic Wilson cloud chamber, a flat cathode-ray tube, and others. Fourteen papers were presented by high school club members. Two new high school science clubs have joined the Junior Academy since last year. They include the Guerin Science Club, Ladywood School, Indianapolis, and the Shawe Science Club, Fr. Michael Shawe Memorial High School, Madison. There are now forty-nine clubs listed on the roll of the Junior Academy. At least two-thirds of these are active and some on the inactive list have recently promised to reorganize. The 25th annual meeting of the Junior Academy will convene this Saturday, October 19. The program of papers will be presented at Maharry Hall of DePauw University. Eleven papers will be read by Junior Academy members during the afternoon session. Arrangements have been made through Dr. L. S. McClung, Department of Bacteriology, Indiana University, to show a motion picture on "A Career in Bacteriology." The Junior Academy Council last year decided to publish a mimeograph edition of the Junior Academy Journal primarily for high school club sponsors. One issue was completed last spring and a second is nearly ready for distribution. The Journal included abstracts of student papers given at the annual meeting and offered suggestions for science club activity. In addition to the Journal the officers of the Junior Academy publish an annual News-letter which reports activities of the various Junior Academy clubs over the state.

**Indiana Science Talent Search**—Richard Schultz for R. W. Lefler: One hundred forty-three Indiana high school seniors completed entry requirements for the 1956-57 Science Talent Search. One hundred nineteen of these students will attend 39 colleges; 91 in 18 Indiana colleges and 26 in 21 out-of-state schools, while 2 are undecided as to the college they will attend. Those students who will attend college have chosen the following curricula: Engineering, 44; Medicine, 11; Physical Sciences, 33; Non-Science areas, 13; Biological Sciences, 6; Mathematics, 3; Nursing,



5; and Undecided, 5. Of the remaining 24 students 2 are going to college next year, one is working, two are in the armed services of the United States and 19 have not reported. This year it is known that 62 of our participants have been awarded scholarships by the colleges they will attend. Fifty-four of these scholarships have associated stipends ranging from remission of fees to \$6000 for the four year period of undergraduate study. The total financial aid which these students will receive in support of their undergraduate program will be over \$70,000. This is, of course, dependent on these students maintaining an appropriate level of academic performance. The Junior Scientists' Assembly was held on March 23, 1957, in Indianapolis. In addition to the exhibit of projects by the Indiana Winner-Honorable Mention Group the usual program at the Honor's Luncheon, our Winner-Honorable Mention students and their sponsoring teachers were the guests of the Research Division of the Eli Lilly Company during the day, Friday, March 22, and of the Allison Division of General Motors for Friday evening. The Indiana Science Talent Search for 1957 is made possible by the generous support of Kappa Kappa Kappa, an organization of Indiana women for the furtherance of Art, Culture and Scholarship, and members of the Indianapolis Chamber of Commerce and the Indiana State Chamber of Commerce. We expect to hold the Junior Scientists' Assembly for the 1957-1958 school year on March 22, 1958.

**Science Education**—Dr. Johnson: Dr. Johnson reported that the application for aid in this area presented to the National Science Foundation was refused.

**New Types of Membership**—H. M. Powell: The committee reported the following: Husband and wife membership, with one joint copy of the Proceedings and either or both being eligible for presentation of papers and any other privileges, shall be \$6 per year. Sustaining membership for individuals, companies and similar organizations shall be \$25 per year.

**New Business**—On recommendation of the secretary in accordance with Art. II, Sec. 5 of the Constitution, Dr. Alvin Strickler and Dr. Karl Means were voted emeritus membership in the academy. In recognition of their services to the Academy it was voted that they receive the Proceedings.

Dr. Frank Welcher read a list of the supporters of the Science Talent Search. These were industrial concerns whose aid was obtained through the efforts of the Indiana and Indianapolis Chambers of Commerce.

Mr. Richard Shulz, who will work with the Junior program during Dr. Lefler's absence, was introduced and outlined his plans for the future work in this field. During the ensuing discussion of the Science Fairs it was decided that the Committee on Science Education should serve in an advisory capacity for Science Fairs, thus officially representing the Academy in this area.

The meeting adjourned at 10:50 p.m.

H. E. CRULL, Secretary

Approved: October 18, 1956

## MINUTES OF THE GENERAL SESSION

DEPAUW UNIVERSITY, OCTOBER 18, 1957

Dr. Robert H. Farber, Dean of DePauw University, welcomed the Indiana Academy of Science to the Greencastle campus. A response was given by Dr. Willis H. Johnson, President of the Indiana Academy of Science.

The minutes of the Executive Committee were read and approved.

Dr. Wm. E. Edington presented a short biographical sketch of members who had died during the year. They were Arthur Fisher Bentley, Herbert P. Bybee, Joseph Bernard Hershman, John Hobart Hoskins, Henry Augustus Huston, Walter Albert Jamieson, Henry Reist Kraybill, Philip Luginbill, Daniel Charles O'Grady, Guy Stanz, and Sister Carmella Welte.

Dr. George F. Reddish, Chief Bacteriologist, Lambert-Hudnut Division of Warner Lambert Pharmaceutical Company and Professor of Microbiology and Public Health, St. Louis College of Pharmacy and Applied Sciences, St. Louis, Missouri, presented an address entitled "Present Trends Relating to Antiseptics, Disinfectants and Sterilization." This was followed by a film entitled "A Career in Bacteriology."

The meeting adjourned at 11:00 a.m.

Sectional meetings then began with a recess for lunch, after which meetings were resumed.

The annual dinner was held in the Ballroom of the Union Building.

Vice-president Wm. A. Daily introduced the guests and officers at the speakers' table.

Prof. R. E. Cleland presented the following resolution:

"When it was announced a year ago that the Seventy-Third Annual Meeting of the Academy would be held at DePauw University, the distinct murmur of approbation which greeted the news, and the pleased expression on the faces of those assembled, were clear evidence of the fact that DePauw is known as a place where one is sure of a warm welcome and of thoughtful and efficient hospitality.

"This probably accounts for the fact that an unusually large proportion of Indiana's scientists have found their way to Greencastle in anticipation of a well-organized meeting amid delightful surroundings. Nor have they been disappointed. DePauw has fully measured up to her reputation and has made our visit both convenient and comfortable. The Indiana Academy of Science therefore wishes to record its deep appreciation to President Humbert and the other officers of the University, to the manager of the Union and his staff, and to the local committee who, under the able leadership of Prof. Yuncker and later Prof. Youse, have contributed so graciously to our welfare. For their labor of love, the Academy extends its gratitude and best thanks."

Dr. H. R. Youse presented a tentative list of 47 applicants for membership. These were duly elected.

The **Nominations Committee** report was given by the Chairman, R. E. Girton. Divisional chairmen for 1958 will be: Anthropology, Emily Blasingham, Indiana University; Bacteriology, Walter A. Konetzka, Indiana University; Botany, Mrs. Fay Daily, Butler University; Chemistry, E. T. McBee, Purdue University; Entomology, John Favinger, State Department of Conservation; Geology and Geography, John Fraser Hart, Indiana University; History of Science, Howard Michaud, Purdue University; Mathematics, Irving Burr, Purdue University; Physics, Lewis Salter, Wabash College; Plant Taxonomy, Marion Hall, Butler University; Psychology, George Lovell, Wabash College; Zoology, William Hopp, Indiana State.

The following members were recommended to serve as 1958 officers: President, W. A. Daily, Eli Lilly Co.; Vice-President, A. A. Lindsey, Purdue University; Secretary, H. E. Crull, Butler University; Treasurer, F. J. Welcher, Indiana University; Editor, R. A. Laubengayer, Wabash College; Press Secretary, F. N. Young, Indiana University.

President Johnson gave his presidential address on "Undergraduate Curricula in Biology."

The 73rd annual fall meeting of the Indiana Academy of Science with a general attendance of 378 people and a dinner attendance of 141 was adjourned.

HARRY E. CRULL, Secretary

## MEMBERSHIP<sup>1</sup>

Adams, Norval E., 120 N. Vine St., Elkhart, Ind.	Bo, Z
Adams, Dr. S. Clifford, Box 217, Hanover, Ind.	G
Adams, William B., 703 Anita St., Bloomington, Ind.	Bo
*Addington, Prof. A. R., Fresno State Col., Fresno, Calif.	G
Ae, Shigeru Albert, Box 126, Notre Dame Univ., Notre Dame, Ind.	Bo, Z
Agnita, Sister Mary, S. P., Clinton & Lewis Sts., Ft. Wayne, Ind.	C
Albright, Lewis E., Psychology Dept., Purdue Univ., W. Lafayette, Ind.	Ps
Aldred, Dr. Jacob Wm., H., R. R. 3, Florence, Ala.	C
Alexander, Prof. Gerald L., 601 Alden Rd., Muncie, Ind.	C
Alexander, Paul Stephen, Biology Dept., Northwestern State College, Natchitoches, La.	Bo, Z
Alexander, Raymond Louis, 1695 Francis St., Franklin, Ind.	Bo, Z
*Allen, Dr. Frederick John, Chemistry Dept., Purdue Univ., W. Lafayette, Ind.	C
Allen, M. Ann, Botany Dept., Ind. Univ., Bloomington, Ind.	Bo, Z
Allmon, Ross H., Hercules Powder Co., 332 S. Michigan Ave., Chicago 4, Ill.	E
*Allyn, Dr. William Preston, Ind. State Teachers Col., Terre Haute, Ind.	E, Z
Alter, Chester, Chancellor, Univ. of Denver, Colorado	C
Amidei, Terso Paul, 4487 Monroe St., Gary, Ind.	Bo, Z
Angrick, Warren Lewis, 5874 Central Ave., Indianapolis, Ind.	Bo, Z
Anthonisen, Robert P., 8011 S. Muskingon Ave., Chicago 17, Ill.	G
Armington, John H., 99 N. Arlington Ave., Indianapolis, Ind.	M
Ash, Charles R., Entomology Dept., Citrus Exp. Sta., Riverside, Calif.	E
*Asher, Prof. E. J., Psychology Dept., Purdue Univ., W. Lafayette, Ind.	Ps
*Ayres, Prof. W. L., Math Dept., Purdue Univ., W. Lafayette, Ind.	M
Babcock, Robert F., Standard Oil of Indiana, Technical Services Div., Whiting, Ind.	C
Babcock, Wm. C., Jr., Rensselaer, Ind.	
*Bachman, G. Bryant, Chemistry Dept., Purdue Univ., W. Lafayette, Ind.	C
Bachofer, Prof. C. S., C.S.C., Univ. of Notre Dame, Notre Dame, Ind.	Ba
*Badertscher, Prof. J. A., 1302 E. Hunter Ave., Bloomington, Ind.	Z
Baker, Dr. Lawrence Manning, Psychology, Biology Annex, Purdue Univ., W. Lafayette, Ind.	Ps

---

<sup>1</sup> For the benefit of sectional chairmen in the preparation of programs, each member has been asked to indicate the section or sections in which most interested. Preferences are indicated as follows: A, Anthropology; Ba, Bacteriology; Bo, Botany; C, Chemistry; E, Entomology; G, Geology and/or Geography; H, History of Science; M, Mathematics; Ph, Physics; PT, Plant Taxonomy; Ps, Psychology; Z, Zoology. If no letter follows the name, the information is lacking.

\* Indicates Fellow

- Baker, Linville A., Biological Research Div., Eli Lilly & Co., Indianapolis, Ind. Ba
- \*Baldinger, Lawrence H., 1234 Hillcrest Rd., South Bend 17, Ind. C
- Baldwin, C. L., Research Dept., Pitman-Moore Co., Indianapolis, Ind. Ba
- \*Baldwin, Dr. Ira Lawrence, 100 Bascom Hall, Univ. of Wisconsin, Madison, Wis. Ba, Bo, C
- Ball, Henrietta S., 1213 S. 3rd St., Lafayette, Ind. Bo, Z, C, Ph
- Banta, Edna, Mary Gray Bird Sanctuary, R. R., Connersville, Ind. Bo, Z
- Barber, L. C., 311 S.E. 2nd St., Washington, Ind. Bo
- Barber, Dr. Stanley A., Agronomy Dept., Purdue Univ., W. Lafayette, Ind. Bo
- Barnes, William Bryan, 311 W. Washington St., Indianapolis, Ind. Bo
- Barrett, John P., Armour & Co., Research Div., Union Stock Yards, Chicago 9, Ill. E
- Bartle, Dr. Glenn Gardner, Harpur Col., Endicott, New York G
- Barton, James D., Jr., Boston Univ., Jr. Col., 688 Baylston St., Boston, Mass. Bo
- Barton, Dr. Jay, II, St. Joseph's Col., Collegeville, Ind. Z
- \*Barton, Prof. Thomas F., P. O. Box 312, Bloomington, Ind. G
- Beal, Mrs. Juna L., Math Dept., Butler Univ., Indianapolis 7, Ind. M
- Beals, Harold O., Biological Science Dept., Purdue University, W. Lafayette, Ind. PT
- Bechert, Charles H., Ind. Dept. of Conservation, 311 W. Washington, Indianapolis, Ind. HS, G
- Becht, Dr. J. Edwin, 208 S. Union St., Bloomington, Ind. G
- Beckett, K. Eileen, 917 N. Lebanon St., Lebanon, Ind. Bo
- Beecher, A. B., 303 Russell Ave., Crawfordsville, Ind. Bo, Z
- Beekman, Bruce Edward, Zoology Dept., Ind. Univ., Bloomington, Ind. Z
- \*Beghtel, Prof. Floyd E., 1303 Emmett St., Evansville, Ind. Ba, Bo, Z
- \*Behrens, Dr. Otto K., Eli Lilly & Co., Indianapolis 6, Ind. C
- Belinfante, Dr. F. J., Physics Dept., Purdue Univ., W. Lafayette, Ind. Ph
- Bell, Marvin R., Ind. St. Teachers Col., Terre Haute, Ind. Bo, G
- Bell, Robert L., 1534-148 Court, Hammond, Ind. Ph
- Bender, Prof. Paul, Goshen, Ind. Ph
- \*Bennett, Prof. Lee F., 614 Fitzhugh St., Saginaw, Mich. Z, G
- Benninghoff, William, Military Geology Branch, U. S. Geol. Survey, Washington 25, D. C. Bo, G
- Bergen, John V., Geography Dept., Ind. Univ., Bloomington, Ind. G
- Bernard, Byron G., Biology Dept., LaPorte H. S., LaPorte, Ind. Bo, Z
- Bernard, Sister Marie, O. S. F., Marian Col., 3200 Cold Springs Rd., Indianapolis 22, Ind. Bo, Z
- Berry, Dr. Jewell E., Box 2651, Prarie View A & M College, Prarie View, Texas Z
- Berry, Dr. Willard, Duke Univ., College Station, Durham, N. C. G
- Bessey, Prof. William H., Butler Univ., Indianapolis 7, Ind. Ph
- Betz, Howard T., Mounted Rt., Box 213, Chesterton, Ind. Ph
- Biebel, Paul, Botany Dept., Ind. Univ., Bloomington, Ind. Bo
- \*Bieber, Dr. Charles L., Geology Dept., DePauw Univ., Greencastle, Ind. C
- Billman, Prof. John H., Chemistry Dept., Ind. Univ., Bloomington, Ind. C



*Black, Glenn A., R. R. 3, Newburgh, Ind.	A
Blair, Walter Beale, 305 W. Washington St., Gelax, Va.	G
Blanche, Sister Mary, St. Mary of the Woods, Ind.	Ph
Blasingham, Emily Jane, Ethnohistorical Research Project, Rayl House, Indiana Univ., Bloomington, Ind.	A
Bloodgood, Prof. Don E., 334 Leslie Ave., W. Lafayette, Ind.	Ba
*Bloom, William W., Biology Dept., Valparaiso Univ., Valparaiso, Ind.	Bo, Z
Bockstahler, Lester, 2440 Prospect Ave., Evanston, Ill.	C, G, Ph
Boisen, Harold L., 3350 E. Fall Creek Dr., Indianapolis, Ind.	
Bolenbaugh, Alta, Apt. 16, 736 E. Third St., Bloomington, Ind.	Bo, G
Borrini, Dr. Tiziano, Corso Cavour 2, Novara, Italy	Bo, Z
Bower, Esther, 306 W. Staat St., Fortville, Ind.	Bo
Boyer, M. C., Ind. Flood Control & Water Res. Comm., 1130 W. Michigan St., Indianapolis, Ind.	G
Bracken, Lawson E., 1731 W. 53rd St., Indianapolis, Ind.	G
Brake, Earl F., Butler Univ., Col. of Pharmacy, Indianapolis 7, Ind.	C
Brammer, Mrs. B. H., 85 W. 6th St., Peru, Ind.	Ba
Brandt, Prof. Warren W., Chemistry Dept., Purdue University, W. Lafayette, Ind.	C
Bray, Dr. Ralph, Physics Dept., Purdue Univ., W. Lafayette, Ind.	Ph
*Breneman, Dr. W. R., Zoology Dept., Ind. Univ., Bloomington, Ind.	Z
Bretscher, Dr. Manuel M., Physics Dept., Valparaiso Univ., Valparaiso, Ind.	Ph
Brett, Dr. William J., Ind. St. Teachers Col., Terre Haute, Ind.	Z
*Briscoe, Dr. Herman T., 246 Grant Dr., Lido Beach, Sarasota, Fla.	C
Brock, James E., 818 Northwestern Ave., W. Lafayette, Ind.	C, M, Ph
*Brodie, Dr. Harold J., Botany Dept., Ind. Univ., Bloomington, Ind.	Bo
Brooker, Dr. Robert M., Ind. Central Col., Indianapolis, Ind.	C
Brookley, Arthur C., Exploration Dept., Standard Oil Co. of Cal., 605 W. Olympic Blvd., Los Angeles 15, Calif.	G
Brooks, C. Reid, R. R. 1, Green's Fork, Ind.	G, Z
*Brooks, Dr. Earl, R. R. 2, Noblesville, Ind.	Z
Brosey, Charles L., 4034 Carrollton Ave., Indianapolis, Ind.	Ph
Brown, Prof. Herbert C., Chemistry Dept., Purdue University, W. Lafayette, Ind.	C
Brown, Lucy Alice, R. R. 1, Vevay, Ind.	Bo
Brown, Mary J., Oakland City College, Oakland City, Ind.	Bo, Z
Brown, Prof. Oliver W., 526 N. Washington St., Bloomington, Ind.	C
Broyles, Dr. Ralph E., 5701 Fairfield Ave., Ft. Wayne, Ind.	
Brubaker, Ralph, Box 241, Leesburg, Ind.	Ba, C
Bruce, Dr. Robert W., 612 W. Pike St., Crawfordsville, Ind.	Ps
Brumbaugh, Joe H., Wabash College, Crawfordsville, Ind.	PT
Brumbaugh, Walter I., 736 N. Howard St., Union City, Ind.	C, Ph
*Brumfield, Prof. Charles, 306 N. Talley, Muncie, Ind.	M
Brunson, Dr. Arthur Maxwell, Botany & Plant Path. Dept., Purdue Univ., W. Lafayette, Ind.	Bo
Brunson, Ruth, 6307 N. Navajo Ave., Chicago 30, Ill.	Bo
Bryan, Kenneth V., Smith Hall, Purdue Univ., W. Lafayette, Ind.	Z
Bryant, Dora, Clarks Hill, Ind.	C, Bo, Z

Buckley, Dr. Wallace T., School of Economics and Business, Washington State College, Pullman, Washington	G
Buehler, John A., Chemistry Dept., Anderson Col., Anderson, Ind.	C
Buls, Erwin, Geology and Geography Dept., Valparaiso Univ., Valparaiso, Ind.	G
Bunce, George W., 443 N. Cline, Griffith, Ind.	Bo, Z, C
Bundy, Wayne M., Geol. Surv., Ind. Univ., Bloomington, Ind.	G
Burdick, Dr. Allan B., Biological Science Dept., Purdue University, W. Lafayette, Ind.	Bo
Burkett, Prof. Howard B., 700 Shadowlawn, Greencastle, Ind.	C
*Burr, Prof. Irving W., 1141 Glenway, W. Lafayette, Ind.	M
Burton, Everett T., Rt. 2, Box 624, Battle Creek, Mich.	C, G, Ph
Buser, Franklin B., St. Teachers Col., East Stroudsburg, Penn.	Bo
Bush, Kenneth H., 1201 Western Dr., W. Lafayette, Ind.	Bo
Bushy, Dr. Clinton, Olivet Nazarene Col., Kankakee, Ill.	E, Z
*Bushnell, T. M., 430 Russell St., W. Lafayette, Ind.	C
Bushong, Mary Ellen, W. Lafayette H. S., W. Lafayette, Ind.	C, Ph
*Cable, Dr. Raymond M., Biology Dept., Purdue Univ., W. Lafayette, Ind.	Bo, Z
Caldwell, A. Lee, 949 E. 86th, Indianapolis 44, Ind.	C
Caldwell, Dr. Ralph M., Botany Dept., Life Science Bldg., Lafayette, Ind.	Bo
Caldwell, William I., Taylor Instrument Co., Rochester, N. Y.	M, Ph
Call, Dr. Herbert Foust, 321 Hume-Mansur Bldg., Indianapolis, Ind.	A
Callender, Maurice E., c/o Parasitology Dept., Eli Lilly & Co., Indianapolis, Ind.	Z, Ba
*Campaigne, Prof. Ernest E., Chemistry Dept., Ind. Univ., Bloomington, Ind.	C
Campbell, C. Alfred, R. R. 17, Box 364, Indianapolis, Ind.	Bo, C, Z
Campbell, Guy, 609 N. Capitol Ave., Corydon, Ind.	G
*Campbell, Dr. Kenneth N., Mead-Johnson Research Labs., Evansville, Ind.	C
Campbell, Mildred Florence, 29 N. Hawthorne Lane, Indianapolis, Ind.	A, Bo, Z
Canright, Dr. James E., Botany Dept., Ind. Univ., Bloomington, Ind.	Bo
Cantrall, Dr. Irving J., Museum of Zoology, University of Michigan, Ann Arbor, Mich.	E
Carlson, Kermit H., Valparaiso Univ., Valparaiso, Ind.	M
Carmack, Marvin, Chemistry Dept., Ind. Univ., Bloomington, Ind.	C
Carnahan, Prof. Walter H., Purdue Univ., Lafayette, Ind.	M
Carter, Gordon, R. R. 1, Gaston, Ind.	Bo
Cartwright, William Bell, Box 495, Lafayette, Ind.	Z
Cash, R. Vincent, Teachers Col. of Connecticut, New Britain, Conn.	C
Cassady, Donald R., 6916 Park Ave., Indianapolis, Ind.	C
Caylor, Dr. Harold D., 303 S. Main St., Bluffton, Ind.	Z
Cedars, Mary Elizabeth, R. R. 6, Box 1094, Kokomo, Ind.	G
Celine, Sister M., O. S. F., St. Francis Col., 2701 Spring St., Fort Wayne, Ind.	Bo, Z



Cesari, Dr. Lamberto, 2801 Greenbush St., Lafayette, Ind.	M
Chandler, Leland, Entomology Dept., Purdue Univ., W. Lafayette, Ind.	E, Z
Chao, Dr. Tai Siang, 591 Pelham Blvd., St. Paul, Minn.	C
Chapple, C., Silver Lake, Ind.	Ph, C
Christens, John M., Chemistry Dept., Ind. Univ., Bloomington, Ind.	C
*Christian, Dr. John Edward, 1301 Woodland Ave., W. Lafayette, Ind.	C
Christman, Dr. John F., Louisiana State Univ., Food Preservation Bldg., Baton Rouge, La.	C
*Christy, Dr. O. B., 2820 University Ave., Muncie, Ind.	Bo
*Clark, James A., 5519 E. 21st St., Indianapolis, Ind.	E
Clark, Dr. William C., Biochemistry and Pharmacology Dept., Ind. Univ. School of Medicine, Indianapolis, Ind.	Z
Clarke, Herbert M., Biology Bldg., Univ. of Wisconsin, Madison, Wisconsin	Bo
Clauser, Dr. E. H., 315 S. Jefferson St., Muncie, Ind.	Z
*Cleland, Prof. Ralph E., Botany Dept., Ind. Univ., Bloomington, Ind.	Bo
Clevenger, Sarah, 717 S. Henderson St., Bloomington, Ind.	Bo
*Clowes, G. H. A., Eli Lilly & Co., Indianapolis, Ind.	Ba, C, Ps
*Coats, Nellie M., Ind. St. Library, 140 N. Senate, Indianapolis, Ind.	
Cole, R. O., Rm. 108, Agr. Exp. Sta., Purdue Univ., W. Lafayette, Ind.	G, C, Bo
Coleman, Robert M., Box 126, Biology Dept., Univ. of Notre Dame, Notre Dame, Ind.	Z
Conklin, Richard Louis, Hanover College, Hanover, Ind.	Ph
Cook, Dr. Donald J., 625 E. Washington, Greencastle, Ind.	C
Cook, Kenneth E., Anderson College, Anderson, Indiana	C
Cooper, Delmer C., Genetics Dept., Univ. of Wisconsin, Madison, Wisc.	Bo, Z
*Cooper, Robert, Biology Dept., Ball St. Teachers Col., Muncie, Ind.	E, Ba, Bo, Z
Cope, James, John Moore Museum, Earlham Col., Earlham, Ind.	
*Corley, Dr. Ralph Conner, Chemistry Dept., Purdue Univ., W. Lafayette, Ind.	C
Correll, Prof. Malcolm, 422 Anderson St., Greencastle, Ind.	Ph
*Cottingham, John O., 4328 Winthrop Ave., Indianapolis, Ind.	Bo
Cover, H. S., Chippewa Knoll, South Bend, Ind.	M
*Cox, C. F., 528 N. Oxford St., Indianapolis, Ind.	Bo, Z
Crain, Wilbur F., Prinkle Bldg., Paoli, Ind.	Bo, C
Crandall, Richard Bradford, 611 Ridge Ave., Greencastle, Ind.	Z
Crane, William Earl, Fountaintown, Ind.	C
Creek, Robert O., Zoology Dept., Ind. Univ., Bloomington, Ind.	Z
Crider, Mrs. Elizabeth H., 1110 W. Kessler Blvd., Indianapolis, Ind.	Bo, Z
Crites, Prof. James, Jr., 1719 W. Bancraft St., Toledo, Ohio	C, G, Ph
Cross, Dr. Aureal T., 3164 S. Gary Place, Tulsa 5, Oklahoma	Bo, G
Crowder, Dr. Harold W., 447 W. Lenox, Fort Wayne 6, Indiana	Z
*Crowell, Dr. Sears, Zoology Dept., Ind. Univ., Bloomington, Ind.	Z

- \*Crull, Harry Edward, 2461 Park Ave., Indianapolis, Ind. M
- \*Culbertson, Dr. Clyde G., Lilly Research Labs., Eli Lilly & Co., Indianapolis, Ind. Ba, Z
- Cummins, Dr. George B., Botany & Plant Path. Dept., Purdue Univ., W. Lafayette, Ind. Bo
- Daggy, Tom, Davidson College, Davidson, N. C. E, Z
- \*Daily, William A., 4573 Winthrop Avenue, Indianapolis, Ind. Bo, Ba
- \*Daily, Mrs. William A., 4573 Winthrop Ave., Indianapolis, Ind. Bo, Ba
- Dale, Mrs. Catherine W., 222 N. Harvey Avenue, Griffith, Ind. Bo
- Danglade, John A., Jr., R. R. 4, Vevay, Ind. C, G, Ph
- Daniels, Robert P., 459 N. Centennial, Indianapolis, Ind. C, Bo, Z
- Dannin, Dr. Albert Gurney, 505 Guaranty Bldg., Indianapolis, Ind. C, Bo, Z
- Davis, Hazel Jane, 110 N. Fruitridge Ave., Terre Haute, Ind. Ba, Bo, Z
- \*Davis, Prof. John June, Purdue Univ., W. Lafayette, Ind. E, Z
- Davis, Mrs. Nellie Florence, Pitman-Moore Co., Indianapolis, Ind. C
- Davis, Percival Wm., Jr., 22 Bogart Ave., Port Washington, N. Y. Z
- Davis, Robert E., Chemistry Dept., Harvard Univ., Cambridge, Mass. C
- Davis, Dr. William W., 4124 N. Pennsylvania St., Indianapolis, Ind. Ph, C
- \*Day, Dr. Harry G., Chemistry Dept., Ind. Univ., Bloomington, Ind. C
- \*Deay, Howard Owen, Entomology Dept., Purdue Univ., W. Lafayette, Ind. E, Z
- \*Degering, Dr. Edward F., 26 Robinhood Road, Natick, Mass. C
- DeKay, Dr. H. George, School of Pharmacy, Purdue Univ., W. Lafayette, Ind. A, C, G
- DeLanney, Dr. Louis E., Wabash College, Crawfordsville, Ind. Z
- Demaree, Delzie, 718 Dalewood, Benton, Arkansas Bo
- DeMoss, Prof. Lowell H., 538 S. State St., Big Rapids, Mich. Bo, Z
- Dennings, Frank Samuel, 616½ N. Augustus, St. Mary's, Ohio Bo
- \*Den Uyl, Prof. Daniel, 918 N. Chauncey St., W. Lafayette, Ind. Bo
- \*Deppe, Prof. C. A., 287 E. Jefferson, Franklin, Ind. Z
- Deters, Asst. Prof. John F., Valparaiso Univ., Valparaiso, Ind. C
- Dettwiler, Dr. H. A., Eli Lilly & Co., Indianapolis, Ind. Ba
- DeVol, Prof. Charles E., Marion Col., Marion, Ind. Bo, Ba
- DeVries, Dr. Thomas, Chemistry Dept., Purdue Univ., W. Lafayette, Ind. C
- Diehl, Frederick P., 3803 Gettysburg Rd., Camp Hill, Penn. E
- Dillon, Lowell I., 1413 S. New Green River Rd., Evansville, Ind. G
- Diltz, Charles D., 3121 Fairfield, Ft. Wayne, Ind. C
- Dineen, Dr. Clarence E., Biology Dept., St. Mary's College, Notre Dame, Ind. Z
- Dinwiddie, William G., 5844 E. 43rd St., Indianapolis, Ind. Bo, C, Z
- Dixon, Dr. H. Marshall III, Box 44, Butler University, Indianapolis 7, Ind. Ph
- \*Doan, Dr. Martha, Westfield, Ind.

Dobbs, Mrs. Robert O., c/o Robert O. Dobbs, Ens., MIPU-Pac Navy 3835, Box 31, FPO, San Francisco, Calif.	Ba
Doeden, Gerald E., 311 Torquay Rd., Muncie, Ind.	C
Downie, Dr. N. M., 1621 Purdue St., Lafayette, Ind.	Ps
Doyle, John Joseph, Marian College, 3200 Cold Springs Rd., Indianapolis, Ind.	Ps
Dragoo, Donald W., Section of Man, Carnegie Museum, Pittsburgh, Penn.	A
Draper, Olive May, Upland, Ind.	M, Ph
*Driver, Dr. Harold E., Anthropology Dept., Ind. Univ., Bloomington, Ind.	A
Drummond, Prof. Robert R., Ind. State Teachers Col., Terre Haute, Ind.	G
Ducommun, Dale J., 204 Westlawn Park, Iowa City, Iowa	Ps, Z
Dufford, Prof. R. T., 512 S. Weinbach Ave., Evansville, Ind.	Ph
Duncan, Robert Ferrie, Sec. and Treas., Calumet Refining Co., 13921 Mackinaw Ave., Chicago, Ill.	C, Ph
Duncan, W. P., 219 Lincoln St., W. Lafayette, Ind.	Ag
*Dunham, Prof. David H., 320 Connolly St., W. Lafayette, Ind.	Ba, Bo, Z
Dunham, Mrs. Esther, R. R. 1, Jonesboro, Ind.	Ba
Dunkin, Joseph S., 235 E. Main St., Flora, Ind.	Bo
Eames, Edward J., 112 Constantine Ave., Beverly Forest, R. R. 1, Springfield, Va.	G
Easterday, Wayne G., 4123 S. Selby St., Marion, Ind.	Ba
Eaton, Dr. Merrill T., School of Education, Ind. Univ., Bloomington, Ind.	Ps
Eaton, Dr. Scott V., Lincoln Hills, M. R. 2, Box 102, Valparaiso, Ind.	Bo
Eberly, William R., Manchester Col., N. Manchester, Ind.	Bo, Z
Eck, Mrs. Pauline Vonnegut, c/o Mrs. Theodore F. Vonnegut, 402 W. Maryland St., Indianapolis, Ind.	A, Bo, Z
Eckels, Lola M., 809 Putnam St., Ft. Wayne, Ind.	Bo, Z
Edington, John Ward, R. R. 1, Straughn, Ind.	Ba
*Edington, Dr. William Edmund, DePauw Univ., Greencastle, Ind.	M
*Edmondson, Dr. Frank K., Goethe Link Observatory, Ind. Univ., Bloomington, Ind.	M, Ph
*Edwards, Prof. P. D., Ball State Teachers College, Muncie, Ind.	M, Ph
Egan, Dr. James P., Hearing & Communications Lab., Psychology Dept., Indiana Univ., Bloomington, Ind.	Ps
Eggerding, Milford H., Geography Dept., Valparaiso Univ., Valparaiso, Ind.	G
Eisenmenger, Sister Mary Petrona, St. Frances Col., 2701 Spring St., Ft. Wayne, Ind.	C, Ph
Ek, Charles, R. R. 4, Box 172, Spencer, Ind.	
Elder, Dr. F. Kingsley, Jr., Physics Dept., Belhaven Col., Jackson, Miss.	Ph
Elliott, Dr. Alice, Ball State Teachers Col., Muncie, Ind.	Z
*Elliott, Prof. Frank R., 694 Crooked Lane, Angola R.R. 3, Ind.	
*Elliott, Prof. S. E., 4624 Rookwood Ave., Indianapolis, Ind.	Ph

Ellis, Dr. Nathan Kent, Horticulture Dept., Purdue Univ., W. Lafayette, Ind.	Bo
Ellis, Robert G., 5306 West Lawrence Ave., Chicago 30, Ill.	Ph
Ellson, Dr. Douglas G., Psychology Dept., Indiana Univ., Bloomington, Ind.	Ps
Enders, Howard Edwin, 612 Armanda Rd., South, Venice, Fla.	E, Z
Enfield, Prof. George H., 498 Taber Dr., Falls Church, Va.	Bo
Engle, Dr. T. L., Indiana Univ. Center, 1120 Barr St., Ft. Wayne, Ind.	Ps
Erd, Richard C., 1528 San Bernardino Ave., Pamon, Calif.	G
Erickson, Mrs. G. E., U. S. Geological Surv., Foreign Geology Branch, Washington, D. C.	A
Esten, Miss Emilia V., 202½ W. Main, Apt. B-3, Delphi, Ind.	B, Z
*Esten, Sidney Raymond, 4340 N. Illinois St., Indianapolis, Ind.	Bo, Z
*Everly, Ray Thomas, Entomology Dept., Agricultural Hall, Purdue Univ., W. Lafayette, Ind.	E, Bo
Falkenbert, Dr. G. V., 3933 Washington Blvd., Indianapolis, Ind.	Bo
Fan, Prof. Hsu Yun, Physics Dept., Purdue Univ., W. Lafayette, Ind.	Ph
Farquharson, Dr. Lois, Franklin College, Franklin, Ind.	Bo
Farrell, Mrs. Edward, 9923 Markham St., Silver Spring, Md.	Bo
Favinger, John J., Whiteland, Ind.	Z
Feldman, Harrison L., 4622 Evanston, Indianapolis, Ind.	Ba, Bo, Z
Fender, Hollis Blair, 10311 N. Ridgeview Dr., Oklahoma City, Okla.	G
Ferguson, Byron L., Chemistry Dept., Valparaiso Univ., Valparaiso, Ind.	C
Ferguson, Dr. James William, Butler Univ., Indianapolis 7, Ind.	C
Fessenden, Prof. William P., 3724 S. Wigger St., Marion, Ind.	C
Fidlar, Marion M., Mountain Fuel Supply Co., Rock Spring, Wyo.	C, G
Fields, Marion Lee, F. R. H. A. 317-3, W. State St., W. Lafayette, Ind.	Bo
Fimian, Walter Joseph, Jr., 11 Linden St., Brattleboro, Vt.	Z
Finnegan, Cyril J., Biology Dept., Box 126, Univ. of Notre Dame, Notre Dame, Ind.	Z
Finney, John C., 2920 Columbus Ave., Anderson, Ind.	G
Fischer, Dr. Robert B., Chemistry Dept., Indiana Univ., Bloomington, Ind.	C
Fisher, T. Richard, Botany Dept., Indiana Univ., Bloomington, Ind.	Bo
Fiske, A. H., Eli Lilly & Co., Indianapolis, Ind.	Bo, C, Z
Fitzwater, William D., Jr., A. E. S. Annex, W. Lafayette, Ind.	Z
Fix, William Lloyd, 202 S. Chestnut St., Huntingburg, Ind.	Bo
Flaten, Clarence M., South Hoosier Hall, Indiana Univ., Bloomington, Ind.	Bo
Fletcher, Hazel Marie, ARS, Home Economics Research, U. S. Dept. of Agriculture, Washington 25, D. C.	Ph, C
Fletcher, Robert I., 311 E. Hanna St., Greencastle, Ind.	Bo, Ba
Ford, Dr. Lee, Auburn, Indiana	Bo
Foresman, George Kedzie, 808 South St., Lafayette, Ind.	C
Forney, Dr. Robert B., 5312 Woodside Dr., Indianapolis, Ind.	C

Forsyth, Max Allyn, 4015 Ruckle St., Indianapolis 5, Indiana	Bo, Z
Fraser, Prof. Dean, Bacteriology Dept., Indiana Univ., Bloomington Ind.	Ba
Freeman, Dr. Leslie W., Indiana Univ., Medical Center, 1040 W. Michigan Street, Indianapolis, Indiana	Z
Frey, Dr. David G., Jordan Hall, Indiana Univ., Bloomington, Ind.	Z
Frick, Charles Harold, College Station, Fredericksburg, Va.	M
Friedman, Samuel A., Indiana State Geological Surv., Indiana Univ., Bloomington, Ind.	G
Friesner, Mrs. Gladys M., 4505 Chatham Place, Indianapolis, Ind.	Ba, Bo
Frith, Dr. William C., 39 Bridgemont, Whaley Bridge, N.R. Stockport, Cheshire, England	C
Fry, Prof. Cleota G., 1100 Hillcrest Rd., Lafayette, Ind.	M
Fry, William O., Jr., Tippecanoe Labs., Eli Lilly & Co., Lafayette Ind.	Ba, C
*Fulford, Margaret, Botany Dept., Cincinnati Univ., Cincinnati, Ohio	Bo
Fuller, Prof., Forst D., Zoology Dept., DePauw Univ., Greencastle, Ind.	Z
*Fulmer, Dr. Jervis M., 612 Highwood Ave., Greencastle, Ind.	C, Ph
Funderburg, John Arthur, R.R. 5, Huntington, Ind.	M
Gaddis, Dr. S. W., Science Dept., Indiana State Teachers Col., Terre Haute, Ind.	C
Gaede, Herbert L., Science Dept., Ball State Teachers Col., Muncie, Ind.	G
Galloway, Jesse James, Geology Dept., Indiana Univ., Bloomington, Ind.	G
Gallun, Robert L., 240 Schilling Dr., W. Lafayette, Ind.	E
Gambill, Dr. William G., Jr., Botany Dept., Ohio Univ., Athens, Ohio	Bo
Gambill, Dr. Robert A., 5929 Beechwood Av., Indianapolis, Ind.	M
*Gardner, Dr. Max William, Plant Pathology Dept., Univ. of California, Berkeley 21, Calif.	Bo
*Garner, Dr. Murvel R., Biology Dept., Earlham Col., Earlham, Ind.	Bo, Z
Garst, Virginia L., Desoto, Ind.	Bo, Z
Gassensmith, Rev. Frederick M., Notre Dame, Ind.	M
Gebhard, Dr. Paul Henry, 318 Jordan Hall, Indiana Univ., Bloomington, Ind.	A
Geisler, Florence, 2267 N. Dearborn St., Indianapolis, Ind.	Bo, G
Gentilcore, Dr. R. Louis, Geography Dept., Indiana Univ., Bloomington, Ind.	G
Gerjuoy, Dr. Herbert, Psychology Dept., Indiana Univ., Bloomington, Ind.	Ps
Gerjuoy, Dr. Irma R., R.R. 1, Bloomington, Ind.	Ps
Gerkin, Prof., Ernest Hugh, 918 E. Bowman St., South Bend, Ind.	C, Ph
Gerking, Dr. Shelby Delos, Zoology Dept., Indiana Univ., Bloomington, Ind.	Ph, Z
Germann, Dr. A. F. O., South Whitley, Ind.	A, C
Gerritsen, Dr. A. N., 5 David Ross Rd., W. Lafayette, Ind.	Ph, H



- Gettlefinger, Dr. Wilfrid Charles, 2814 Newburg Rd., Louisville  
5, Ky. Bo, Ph
- Gibson, Arthur R., 7138 Van Buren Ave., Hammond, Ind. Bo, Z
- \*Gingery, Walter G., Route 1, Bloomington, Ind. C, M
- \*Girton, Dr. Raymond Elwood, 820 Hillerest Rd., W. Lafayette, Ind. Bo
- Glenn, A. H., A. H. Glenn & Assoc., 111 New Orleans Airport,  
New Orleans 22, La. G
- Glenn, Earl Rouse, P.O. Box 343, Vevay, Ind. Ph
- Goebel, Dr. Harold John, 702 W. Packard, Fort Wayne, Ind. Bo, Z
- Goethe, C. M., Capital Nat. Bank Bldg., Sacramento 14, Cal. Bo, Z
- Golomb, Prof. Michael, Math. Dept., Purdue Univ., W.  
Lafayette, Ind. M
- Goodnight, Dr. Clarence J., Biology Dept., Purdue Univ.,  
W. Lafayette, Ind. Bo, Z
- Gordon, William R., Jr., Box 292, Dublin, Ind. Bo, Z
- Goss, Robert C., 2429 Pennsylvania St., Indianapolis, Ind. Bo
- \*Gould, Dr. George E., Purdue Univ., Entomology, Lafayette,  
Ind. E, Bo, Z
- Gourley, Frances M., 201 Monroe Apts., 701 Maple Ave.,  
LaPorte, Ind. Bo, Z
- Graam, Dr. Dona G., 1320 S. 9th St., Terre Haute, Ind. Ba, C, Z
- Graebner, Dr. Oliver E., Valparaiso Univ., Valparaiso, Ind. Ps
- Graves, Dr. Gordon Harwood, 4242 Cornelius Ave., Indianapolis, Ind. M
- Gray, Dr. Nina E., Illinois State Normal Univ., Normal, Ill. Bo, Z
- \*Gray, William D., Botany Dept., Ohio State Univ., Columbus 10,  
Ohio Bo
- Greenwalt, Leon, 911 S. Seventh St., Goshen, Ind. Bo, Z
- Greenwood, Henry R., 1103 State St., Washington, Ind. Bo, Z
- Gregory, Howard Wilbur, 416 Stadium Ave., W. Lafayette, Ind. Bo
- Gregory, Paul N., Tippecanoe Labs., Eli Lilly & Co., Lafayette,  
Ind. Ba, Z
- Gries, Dr. George A., Life Science Bldg., Purdue Univ., W.  
Lafayette, Ind. Bo
- Griffin, Charles D., 630 W. 41st St., Indianapolis, Ind. Bo
- Grollig, Rev. Francis X., S. J., West Baden College, West Baden  
Springs, Ind. A
- Gross, E. Wayne, R.R. 6, Bloomington, Ind. Ph
- \*Guard, Arthur T., 1845 Woodland Ave., W. Lafayette, Ind. Bo
- \*Gucker, Prof. Frank T., Chemistry Dept. Chm., Indiana Univ.,  
Bloomington, Ind. C
- Guennel, Gottfried Kurt, Geology Dept., Indiana Univ.,  
Bloomington, Ind. Bo
- \*Guernsey, E. Y., Box 246, Cocoa Beach, Fla. A
- Guernsey, Mrs. Frances Scott, 921 Logan, Lafayette, Ind. Bo
- Guernsey, J. L., 100 Monterey St., Terre Haute, Ind. G
- Gunther, Prof. W. C., Valparaiso Univ., Valparaiso, Ind. Z
- Guthrie, Frank A., Rose Polytechnic Inst., R.R. 5, Terre Haute, Ind. C
- \*Guthrie, Ned, Hanover Col., Hanover, Ind. C
- Gutschick, Dr. R. C., Geology Dept., Univ. of Notre Dame,  
Notre Dame, Ind. G

*Haas, Dr. Flora Anderson, R.F.D. 2, Apapka, Fla.	Ba, Bo
*Haenisch, Prof. Edward L., P.O. Box 366, Crawfordsville, Ind.	C
*Hagen, Dr. Charles W., Jr., Botany Dept., Indiana Univ., Bloomington, Ind.	Bo
Hall, Dr. Marion T., Butler Univ., Indianapolis, Ind.	PT
Hallam, Kenneth Leslie, 5456 N. Capitol, Indianapolis, Ind.	Ph
Hamilton, Miss A. Isabelle, R.R. 1, Spencer, Ind.	Ph
*Hamilton, Donald W., U. S. Bureau Ent., & Pl. Quar., 1237 Washington Ave., Vincennes, Ind.	E
Hamlett, Dr. Iona Cuyler, 801 E. State Blvd., Ft. Wayne, Ind.	A, Ps
Hamm, John, Box 452, Earlham Col., Richmond, Ind.	Z
Hammersley, Dr. William LaMoine, Jr., 53 E. Walnut St., Frankfort, Ind.	Bo, Z, C
Hanson, Dr. Robert J., Biology Dept., Valparaiso Univ., Valparaiso, Ind.	Ba
Harcourt, Mrs. Marian, 153 Glenridge Place, Cincinnati, Ohio	Ba
Harcourt, Robert S., 153 Glenridge Place, Cincinnati, Ohio	Z
Hare, Robert R., Jr., 12908 Mordy Rd., Silver Spring, Md.	Ph
*Harger, Dr. Rolla Neil, 5015 Graceland Ave., Indianapolis, Ind.	C
Hargitt, Dr. George, 811 Watts St., Durham, N. C.	Z
*Harmon, Paul M., 505 Ballentine Rd., Bloomington, Ind.	Z
Harned, Dr. B. K., Mead-Johnson Research Labs., Evansville 21, Ind.	C
Harrises, Antonio, Biology Dept., Univ. of Notre Dame, Notre Dame, Ind.	Z
Hart, Dr. John Fraser, Geography Dept., Indiana Univ., Bloomington, Ind.	G
Hart, John Robert, 615 N. Hart St., Princeton, Ind.	Bo
Hart, Mrs. J. R., 615 N. Hart St., Princeton, Ind.	Bo
*Hartsell, Dr. Stanley E., Bacteriology Dept., Purdue Univ., W. Lafayette, Ind.	Ba
Hartzler, H. Harold, Goshen College, Goshen, Ind.	M, Ph
Hasenstab, Louis D., 1511 N. LaSalle St., Indianapolis 1, Ind.	Bo
Hatfield, Nicholas W., M.D., 4118 N. Pennsylvania St., Indianapolis, Ind.	Z
Haueisen, B. R., R.R. 1, Box 399, New Augusta, Ind.	Ph
Haurowitz, Dr. Felix, Chemistry Dept., Indiana Univ., Bloomington Ind.	C
*Haynes, Dr. Edith, Bacteriology Dept., Indiana Univ. Medical Center, Indianapolis, Ind.	Ba
Hazard, Prof. Clifton T., 344 Northwestern Ave., W. Lafayette, Ind.	M
Hazlett, Donald C., Russellville, Ind.	G
*Headlee, Dr. William Hugh, Microbiology Dept., Indiana Univ. School of Medicine, Indianapolis, Ind.	E, Bo, Z
Heap, George E., 414 W. Thompson St., Sullivan, Ind.	G
Heckman, Rev. Norman L., St. Joseph's Col., Collegeville, Ind.	C
Heise, John J., R.F.D., Paoli, Ind.	C
*Heiser, Dr. Charles B., Jr., Botany Dept., Indiana Univ., Bloomington, Ind.	Bo
Heller, Noah C., Science Dept., Teachers Col., Terre Haute, Ind.	C



Helmen, Vernon R., R.R. 12, Box 252U, Indianapolis, Ind.	A
Hennigar, Prof. Lewis Albro, Anderson Col., Anderson, Ind.	Ps
Henning, Dr. Carl, Hanover, Ind.	Bo
*Hennion, Dr. George Felix, Chemistry Dept., Univ. of Notre Dame, Notre Dame, Ind.	C
Herbst, Eugene L., 229 Floyd St., Elkhart, Ind.	C
Herzog, Dr. George, Anthropology Dept., Indiana Univ., Bloomington, Ind.	A
Hesemeyer, James H., 200-1 Sheridan Village, Schenectady 8, N. Y.	Ph
*Hickman, Dr. Cleveland P., Sr., 315 Greenwood Ave., Greencastle, Ind.	Z
*Hiestand, William A., Biology Dept., Purdue Univ., W. Lafayette, Ind.	Z
Higgins, Calvin E., Lilly Research Labs., 740 S. Alabama St., Indianapolis, Ind.	Ba, Bo
Higinbotham, Dr. Noe, Botany Dept., State Col. of Washington, Pullman, Wash.	Bo
Hile, Dr. Ralph, 1220 E. Washington St., Ann Arbor, Mich.	E, Z
Hill, Sister Ann Gertrude, Ursuline Col., 2234 Overlash Rd., Cleveland, Ohio	C
Hilliker, Eugene F., 3353 Broadway, Indianapolis, Ind.	Bo, Z
Hills, Donald C., 2129 N. Talbot St., Indianapolis, Ind.	C, Ph
Hinchman, Max, 303 W. Fourth St., Greenfield, Ind.	Ba
Hine, Dr. Maynard K., 327 Buckingham Dr., Indianapolis, Ind.	Ba, Z
Hines, Dr. Don Carlos, R.R. 1, Box 351, New Augusta, Ind.	Z
Hinkle, Ruth, 427 Troll St., Sullivan, Ind.	M, Ph
Hlavaty, Prof. Vaclav, Math. Dept., Indiana Univ., Bloomington, Ind.	M
Hobbs, Clinton H., Biology Dept., Kent State Univ., Kent, Ohio	Bo
Hodson, Margaret E., Marion Col., Marion, Ind.	Bo, Z
*Hoffer, Prof. George N., 1327 N. Grant St., W. Lafayette, Ind.	Bo, C, G
*Hole, Francis Doan, 204 Soils Bldg., Univ. of Wisconsin, Madison, Wisc.	G
Hook, Dr. John C., Science Dept., Indiana State Teachers Col., Terre Haute, Ind.	G
Hopf, Prof. Everhard, 512 S. Swain Ave., Bloomington, Ind.	M
Hopp, Dr. William B., Biology Dept., Indiana State Teachers Col., Terre Haute, Ind.	Z
Hosler, Dr. Peter, Eli Lilly & Co., Indianapolis, Ind.	Ba, C
*Hougham, Dr. Naomi Mullendore, R.R. 4, Franklin, Ind.	Bo, Z
Householder, J. C., 5043 Primrose Ave., Indianapolis, Ind.	A
Howe, Robert Hsi Lin, 48 S. Grant St., W. Lafayette, Ind.	Ph, Ba
*Howell, Dr. L. B., Chemistry Dept., Wabash Col., Crawfordsville, Ind.	Ba, C, G
Howie, Hillis L., 900 Lay Rd., St. Louis 24, Mo.	A
*Howlett, Prof. Berton A., Rose Polytechnic Inst., Terre Haute, Ind.	Ph
Hsu, Dr. Chin-Gung, 14 Chauncy St., Cambridge, Mass.	C
Huddleston, Frances, 7735 Oak Ave., Gary, Ind.	Bo, Z
Hueber, Francis M., 1603 Central Ave., Apt. 115, Indianapolis, Ind.	G
*Hufford, Dr. Mason E., 614 Woodlawn, Bloomington, Ind.	Ph
Hughes, Dr. Howard K., 617 Dodge St., W. Lafayette, Ind.	M
Hughes, Norwood Robert, 5133 W. 15th St., Speedway 24, Ind.	M

*Hull, Dr. Ralph, Remo-Wooldridge Corp., 5730 Arbor Vitae, Los Angeles, Cal.	M
Hull, Dr. Robert N., Lilly Research Labs., Eli Lilly & Co., Indianapolis, Ind.	Ba, Bo, Z
*Hulpieu, H. R., 4346 Carrollton Ave., Indianapolis, Ind.	Bo, C
Hults, Malcom Eugene, 3007 Ethel Ave., Muncie, Ind.	Ph
Humbles, Jack E., R.R. 1, Fortville, Ind.	Bo, Z
Hume, Prof. James D., 1812 Ravinia Rd., W. Lafayette, Ind.	G
*Hummel, Dr. A. D., Physics Dept., Ball State Teachers Col., Muncie, Ind.	Ph
Humphrey, William F., 728½ W. Allegan St., Lansing 33, Mich.	Bo
Hunnings, Keith, 815 Park Ave., New Haven, Ind.	C
Hunsucker, J. H., R.F.D. 2, Box 328 AB, Carmel, Ind.	C
Hunt, Herschel, Purdue Univ., W. Lafayette, Ind.	C
Hunt, Raymond, 1505 Community Lane, Midland, Tex.	G
*Hurlbut, Dr. Floy, 121 N. Tillotson, Muncie, Ind.	G
Hurlbut, Zylpha D., Anderson Col., Anderson, Ind.	Bo, Z
Hutchinson, Emory J., R.R. 2, Seymour, Ind.	Bo, Z
Hutton, Kenneth E., Biological Science Dept., Purdue Univ., W. Lafayette, Ind.	Z
Idol, James D., Chemical and Physical Res. Div., Standard Oil Co., 2127 Cornell Rd., Cleveland 6, Ohio	C
Inlow, Paul M., 1398 Pythian Ave., Springfield, Ohio	Z
Inlow, Dr. William DePrez, 103 W. Washington St., Shelbyville, Ind.	H, A
Iske, Mrs. May, Zoology Dept., Butler Univ., Indianapolis 7, Ind.	Z
Ismail, Margery Joan, Hoosier Cts., 3-6, Bloomington, Ind.	G
Jackson, Raymond C., Biology Dept., Univ. of New Mexico, Albuquerque, N. M.	Bo
Jacobs, Merle E., Goshen Col., Goshen, Ind.	E, Z
James, Prof. Charles M., 136 DeHart St., W. Lafayette, Ind.	Z
James, Prof. Hubert Maxwell, 316 Forest Hills Dr., W. Lafayette, Ind.	Ph
Jenkins, Dean Glenn L., Pharmacy Dept., Purdue Univ., W. Lafayette, Ind.	C, Bo
Jennings, Dr. Robert K., 7100 N. Greenview, 3C, Chicago, Ill.	Ba
Johnson, Dr. David F., Science Dept., Indiana State Teachers Col., Terre Haute, Ind.	Bo, Z
Johnson, John I., Jr., Psychology Dept., Marquette Univ., Milwaukee 3, Wisc.	Ps
Johnson, Dr. Orland E., 458 Maple St., Apt. B, W. Lafayette, Ind.	Ph
Johnson, Dr. Vivian A., Physics Dept., Purdue Univ., W. Lafayette, Ind.	Ph
*Johnson, Dr. Willis H., Biology Dept., Wabash Col., Crawfordsville, Ind.	Z
Johnston, Richard B., 7450 Holliday Dr., East, Indianapolis, Ind.	A
Johnston, Dr. W. H., 310 Hollowood Dr., W. Lafayette, Ind.	C
Jones, Dr. G. Neville, Botany Dept., Univ. of Illinois, Urbana, Ill.	Bo

- Jones, Dr. J. A., Anthropology Dept., Ind. Univ., Bloomington, Ind. A  
 Jordan, Ruth, 230 Harrison, W. Lafayette, Ind. C, Ps  
 Jordan, Wendell V., President, Federal Chemical Co., Inc.,  
 2701 Winthrop Ave., Indianapolis, Ind. E  
 Joyner, James W., Box 262, Earlham College, Richmond, Ind. Z  
 Judd, Dr. Gerard F., 624 O'Dell St., Austin, Tex. C  
 Jump, Dr. John Austin, Biology Dept., Univ. of Notre Dame,  
 Notre Dame, Ind. Bo  
 \*Just, Dr. Theodor, Chicago Nat. Hist. Museum, Chicago, Ill. Bo, Z
- \*Kaczmarek, Regidius M., Notre Dame Univ., Notre Dame, Ind. A, Bo, Z  
 Kallas, Theodore, 222 S. Eleventh St., Terre Haute, Ind. Ph C  
 \*Karling, Prof. John S., Botany Dept., Purdue Univ., W.  
 Lafayette, Ind. Bo, Z  
 Kartinos, Dr. Nicholas J., 8155 N. Prospect Ave., Niles, Ill. C  
 Kaslow, Dr. Christian E., Chemistry Dept., Indiana Univ.,  
 Bloomington, Ind. C  
 Kavanaugh, Dr. Virgene, V. Kavanaugh Lab., 1826 N. Penn. St.,  
 Indianapolis, Ind. Z, Ba  
 Keesom, Prof. P. H., 726 Lindberg Rd., W. Lafayette, Ind. Ph  
 Keith, Everett, 1212 Crawford Dr., Indianapolis, Ind. G  
 Kent, Robert L., Biology Dept., Indiana Central Col.,  
 Indianapolis, Ind. Bo  
 \*Kern, Dr. Frank D., 140 W. Fairmount Ave., State Col., Penn. Bo  
 Kessel, William G., Chemistry Dept., Indiana State Teachers  
 Col., Terre Haute, Ind. C  
 Kilduski, Robert J., 617 213th Place, Dyer, Ind. E  
 Kimble, George H. T., R.R. 1, Solsberry, Ind. G  
 King, Dr. Lawrence J., Boyce Thompson Inst., 1086 N. Broadway,  
 Yonkers, N. Y. Bo, H  
 King, Prof. Richard W., Physics Dept., Purdue Univ., W.  
 Lafayette, Ind. Ph  
 King, Roger F., 9 Morningside Avenue, South River, N. J. Ba, Bo  
 King, Terry T., 444 Arcadia Ct., Fort Wayne, Ind. G  
 Kingsbury Theodore M., R.R. 10, Box 439, Indianapolis, Ind. G  
 Kingsolver, John M., G-65-A Stadium Terr., Champaign, Ill. E  
 \*Kintner, Edward, 1004 East St., North Manchester, Ind. E, Ba, Ps, Z  
 Kirk, Ronald E., R.R. 2, Bicknell, Ind. E  
 Kirsch, Arthur David, 1815 Greenbush St., W. Lafayette, Ind. Ps  
 Klages, Dr. Murray G., Agronomy Dept., Montana State Col.,  
 Bozeman, Mont.  
 Kline, Rev. James Edward, King's Col., Wilkes Barre, Penn. Ph, M  
 Klinge, Paul Ernest, 246 Ohmer Ave., Indianapolis, Ind. G, Bo, Z  
 Knight, Percy Leonard, 1128 Cleveland Ave., South Bend, Ind. Z  
 Knoebel, Dr. Leon K., Physiology Dept., Indiana Univ.,  
 Bloomington, Ind. Z  
 \*Koch, Dr. George David, Indiana State Teachers Col., Terre  
 Haute, Ind. G  
 Koch, Norma, 27 W. Hanna, Indianapolis, Ind. G, Z, Bo  
 Koch, Roderic Malcolm, 10 S. Eleventh Ave., Evansville, Ind.

Koenig, Harold P., 3935 E. Guayman Pl., Tucson, Ariz.	C
*Koffler, Dr. Henry, Biological Science Dept., Purdue Univ., W. Lafayette, Ind.	Ba, Bo, Z
Kohnke, Dr. Helmut, 308 Forest Hill Dr., W. Lafayette, Ind.	Ba, Bo, C
Kolitschew, Dr. Konstantin D., 1405 Windermire St., Indianapolis, Ind.	Ph, M
Konetzka, Walter A., Bacteriology Dept., Indiana Univ., Bloomington, Ind.	Ba
Korn, Robert William, Botany Dept., Indiana Univ., Bloomington, Ind.	Bo
Kortright, James M., Physics Dept., Purdue Univ., W. Lafayette, Ind.	Ph
Kosolombat, Samak, 2 Bangchan, Ninburi, Phiyati, Bankoks, Thailand	C
Kossack, Prof. Carl F., Statistical Lab., Purdue Univ., W. Lafayette, Ind.	M
Kottlowski, Dr. Frank E., New Mexico Bureau Mines, New Mexico School of Mines, Socorro, N. M.	G
Kowitz, William T., Valparaiso Univ., Valparaiso, Ind.	G
Kramer, Dr. Herbert, Agronomy Dept., Purdue Univ., Lafayette, Ind.	Bo
Krekeler, Carl H, 360 McIntyre Ct., Valparaiso, Ind.	Z
Kroeckel, Rev. C. J., CPPS, St. Joseph's Col., Collegeville, Ind.	Bo, Z
Kroeger, Dr. John William, 1223 Washington Ave., Philadelphia, Pa.	C
Kronsbein, Prof. John, Evansville College, Evansville, Ind.	M, Ph
Krueger, Gordan M., Taylor Univ., Upland, Ind.	C
Krueger, Dr. Levi M., 518 N. Delaware St., Indianapolis, Ind.	Ps
Krueger, Thos. P., 1718 E. LaSalle Ave., South Bend, Ind.	Z
Kuebler, John R., 5503 E. Washington St., Indianapolis, Ind.	C, G, Ph
Kupferberg, Mrs. Charles Kemper, R.N., 4325 Bonilla Dr., San Diego, Cal.	Z, Ba, Ps
Kuster, Robert J., Biology Dept., Valparaiso Univ., Valparaiso, Ind.	Bo, Z
Kuykendall, Mrs. Clemie E., 2202 N. Capitol Ave., Indianapolis, Ind.	Bo
Kyle, Robert K., 44 School St., Culver, Ind.	Ba, Bo, H, Z
LaFollette, Robert, 2417 Kenwood Ave., Ft. Wayne, Ind.	C
Lal, Amrit, Geography Dept., Indiana Univ., Bloomington, Ind.	G
Lang, Maud Ora, Box 284, Boonville, Ind.	Ba, Bo
Lange, Lester H., Valparaiso Univ., Valparaiso, Ind.	M
*Lark-Horovitz, Karl, Purdue Univ., Lafayette, Ind.	Ph
Larson, Dr. Raymond G., 835 LaPorte Ave., Valparaiso, Ind.	C
Lash, Robert F., 216 Sarvis Dr., Knoxville, Tenn.	Ba, C, Ph, Z
*Laubengayer, Prof. Richard, Biology Dept., Wabash Col., Crawfordsville, Ind.	Bo
Lawrence, John L., 903 E. 8th St., Flint, Mich.	M
*Lee, Charles O., 502 S. Johnson St., Ada, Ohio	Bo, C
Lee, Mordie B., 4665 Sunset Ave., Indianapolis 8, Ind.	Bo, Z
Lefforge, Prof. Jesse H., 434 N. Grant St., Lafayette, Ind.	Bo

*Lefler, Ralph W., Purdue Team c/o Army Section, Artillery School, APO 63, San Francisco, Cal.	Ph
Lehker, Prof. Glen E., 473 Littleton St., W. Lafayette, Ind.	E
Leighly, Prof. Hollis P., Lawrenceville, Ill.	C, G
Leininger, Richard K., Geological Surv., Indiana Univ., Bloomington, Ind.	C
Lemon, Lola May, Lew Wallace School, Gary, Ind.	Bo
Leopold, Dr. A. Carl, Horticulture Dept., Purdue Univ., W. Lafayette, Ind.	Bo
Leslie, James E., 4676 Columbia Pkwy., Cincinnati, Ohio	Ba
Leth, Miss Arlene M., 600 Valley Rd., Itasca, Ill.	Ch
Levitt, Eugene E., Psychiatry Dept., Indiana Univ. Medical Center, Indianapolis, Ind.	Ps
Lewis, Howard C., 352 S. Jefferson, Danville, Ind.	Bo, Z
Louis, Robert E., Entomology Dept., 303 Harker Hall, Univ. of Illinois, Urbana, Ill.	Bo, Z
LeZotte, Lloyd A., Jr., Biological Science Dept., Purdue Univ., W. Lafayette, Ind.	Z
*Lilly, Dr. Eli, Eli Lilly & Co., Indianapolis, Ind.	A
Liming, Alfred Newton, 762 West St., Versailles, Ind.	Bo
*Lindsey, Dr. Alton A., Life Science Bldg., 1C30 Purdue Univ., W. Lafayette, Ind.	Bo, Z
Lingappa, B. T., Biological Science Dept., Purdue Univ., W. Lafayette, Ind.	Bo
Link, Dr. Goethe, 219 N. Pennsylvania St., Indianapolis, Ind.	M, Ph, Z
Lipscomb, Robert G., 3038 W. 18th St., Indianapolis, Ind.	Bo
List, Dr. James Carl, Ball State Teachers Col., Muncie, Ind.	Z
Liston, Prof. Joseph, School of Aeronautical Engineering, Purdue Univ., W. Lafayette, Ind.	G, Ph
Lockard, Dan H., P.O. Box 326, Wellston, Ohio	E
Long, Michael, 401 N. Mill St., North Manchester, Ind.	Z
Long, Dr. Norman O., Chemistry, Evansville, Ind.	C
Longden, Grafton Jr., Indianapolis Rd., Greencastle, Ind.	Z, Bo
Loring, Robert David, Geology and Geography Dept., DePauw Univ., Greencastle, Ind.	G
Lott, A. V., Sellersburg, Ind.	Bo, G, Ph
Loughridge, Dr. Gasper A., Biology Dept., Davis & Elkins Col., Elkins, W. Va.	Bo
Lounsbury, Dr. Richard W., R.R. 9, South River Rd., Lafayette, Ind.	G
Louraine, Frank E., 1715 N. Harrison St., Arlington, Va.	A, Bo
Lowe, Grace D., 112 Kent Ave., Terre Haute, Ind.	Bo, Z
Lowry, Dr. Murrill M., Zoology Dept., Butler Univ., Indianapolis Ind.	Z
Lucey, Sister Mary Ruth, St. Mary of the Woods Col., St. Mary of the Woods, Ind.	Bo, Z
Lytle, Charles F., Zoology Dept., Indiana Univ., Bloomington, Ind.	Z
*McAtee, Dr. W. L., 3 Davie Circle, Chapel Hill, N. C.	Bo, Z
McAvoy, Blanche, 5476 Foley Rd., Cincinnati 38, Ohio	Bo, G



*McBee, Prof. Earl T., Chemistry Dept., Purdue Univ., W. Lafayette, Ind.	C
McCaman, Richard E., 493 High St., Doylestown, Ohio	C
McCann, Carl, 5737 Wildwood Ave., Indianapolis 20, Ind.	C
*McClung, Dr. L. S., Bacteriology Office, Indiana Univ., Bloomington, Ind.	Bo, Z, Ba
McClure, Prof. Standleigh M., Box 57, Lebanon, Ill.	G, C
McCord, Robert Dudridge, 6642 St. Joe Rd., Fort Wayne, Ind.	Bo, Z
McCormick, Jack, 31 S. Sherman Dr., Indianapolis, Ind.	Bo
*McCormick, Robert Nathaniel, 211 Stradling Rd., Muncie, Ind.	Ba, Z
McCowen, Max, Lilly Research Lab., Eli Lilly & Co., Indianapolis, Ind.	Bo, Z
McCoy, C. Edward, Entomology Dept., Purdue Univ., W. Lafayette, Ind.	E
*McCoy, Scott, 1120 E. 86th St., Indianapolis, Ind.	Z, Bo
McCusker, Dr. Patrick A., Chemistry Dept., Univ. of Notre Dame, Notre Dame, Ind.	C
*McGrain, Preston, Kentucky Geological Surv., Univ. of Kentucky, Lexington, Ky.	G
McGuire, Dr. J. M., Eli Lilly & Co., Indianapolis, Ind.	Bo
McKee, Roy, 302 E. North B Street, Gas City, Ind.	C, Bo, Z, Ph
McKenna, Dr. Frank S., 112 Northwood Blvd., Greencastle, Ind.	Ps
McMasters, Donald, Chemistry Dept., Indiana Univ., Bloomington, Ind.	C
McMichael, Edward V., R.D. 1, Imperial, Penn.	A
McNall, Preston Essex, Jr., 500 Washington Ave., S., Hopkins, Minn.	Ph
McQueeney, Carl Ray, 2025 7th Ave., Milwaukie 22, Oregon	Bo
MacFarlane, Dr. John O., Eli Lilly & Co., Indianapolis, Ind.	Ba
MacKay, Dr. Elizabeth L., 715 N. Chauncey, W. Lafayette, Ind.	Bo, Z
*Mackell, Dr. James F., R.R. 1, Terre Haute, Ind.	C, M, Ph
Macklin, Jerry M., Box 281, Bryant, Ind.	E
Madinger, Francis Lee, 5929 E. 43rd, Indianapolis, Ind.	Ba, Bo
Maffet, Vere, 221 Main St., Sayreville, N. J.	C
Magoon, Dr. Wallace, Ball State Teachers Col., Muncie, Ind.	Z
Mahan, Robert, 244 Home Ave., Elkhart, Ind.	Ph
Malin, Dr. Bernard, Dept. M-782B, Eli Lilly & Co., Indianapolis, Ind.	Ba
Malm, Dr. Marguerite, Indiana State Teachers Col., Terre Haute, Ind.	Ps
Manning, Prof. Armin W., Valparaiso Univ., Valparaiso, Ind.	Ph
Manthey, John A., 749 S. Bancroft, Indianapolis, Ind.	Bo
*Markle, Dr. Carrolle A., 528 National Rd., West, Richmond, Ind.	Bo, Z
*Markle, Dr. M. S., 528 National Rd., West, Richmond, Ind.	Bo, Z
Marshall, G. Edward, Box 53, Orleans, Ind.	Z
Martens, Dr. J. Louis, Box 146, Illinois State Normal Univ., Normal, Ill.	Bo
Martin, Dr. Dudley C., General Chemical Div., 511 E. Peterson St., Kalamazoo, Mich.	E
Martin, Mrs. George F., R.R. 3, Box 574, Newburgh, Ind.	A
*Martin, R. Earl, Hanover College, Hanover, Ind.	Ph

Martin, William C., Jr., Botany Dept., Jordan Hall, Indiana Univ., Bloomington, Ind.	Bo
Marting, Dorsey P., Meteorologist in Charge, Weather Bureau, Airport Station, Box 473, Winslow, Ariz.	G, M, Ph
Mason, Prof. C. L., Physics Dept., Rose Polytechnic Inst., Terre Haute, Ind.	Ph
Mason, Richard C., Seton Hall, Medical Col., Jersey City, N. J.	Z
*Mathers, Dr. Frank C., 503 S. Ballentine Rd., Bloomington, Ind.	C
Mathias, Harry R., 123 E. Evers Ave., Bowling Green, Ohio	M
Matter, Milton, Jr., 709 W 4th St., Marion, Ind.	Z
Mayo, Mrs. Marie Joiner, University Apts., W-216, Bloomington, Ind.	Bo, Z
*Means, Prof. Karl Stone, 2101 N. Penn., Indianapolis, Ind.	C
Meibohm, Dr. Alvin W., Valparaiso Univ., Valparaiso, Ind.	C
Meikle, G. Stanley, 606 Terry Lane, W. Lafayette, Ind.	
*Meissner, Dr. K. W., 176 E. Stadium Ave., W. Lafayette, Ind.	Ph
Meitzler, William Frederick, Photographic Lab., Indiana Univ., AVC, Bloomington, Ind.	Z
Melhorn, Dr. Wilton N., Geology Dept., Purdue Univ., Lafayette, Ind.	G
*Mellon, Dr. Melvin G., 9 Russell St., W. Lafayette, Ind.	C
Merritt, Dr. Lynne L., Jr., Chemistry Dept., Indiana Univ., Bloomington, Ind.	C
Mertens, Thomas Robert, Ball State Teachers Col., Muncie, Ind.	Bo
*Meyer, Dr. A. H., Valparaiso Univ., Valparaiso, Ind.	G, Z
Meyer, L. R., R.R. 1, Decatur, Ind.	Bo, E, G
*Michaud, Dr. Howard H., Forestry Dept., Purdue Univ., W. Lafayette, Ind.	Bo, Z
Michels, Dr. Kenneth M., Psychology Dept., Purdue Univ., W. Lafayette, Ind.	Ps
Middleton, Dr. Warren C., 2524 Forest Glen Rd., Silver Spring, Md.	A, Ps, Z
Miller, Brinton M., 37A Leland Gardens, Plainfield, New Jersey	Bo
Miller, Charles A., Biology Dept., Wabash Col., Crawfordsville, Ind.	Z
*Miller, Dr. Donald E., Biology Dept., Ball State Teachers Col., Muncie, Ind.	Bo, Z
Miller, Mrs. Evelyn W., Elkhart H. S., Elkhart, Ind.	Bo, Z
Miller, Dr. Glen Russell, 607 College Ave., Goshen, Ind.	C, G
Millis, Samuel C., 408 S. Grant Ave., Crawfordsville, Ind.	Z
Milne, Mr. C. G., Garden Editor, Indianapolis Star, Indianapolis, Ind.	Bo
Miner, Wallace B., Northern Illinois State Col., DeKalb, Ill.	C, M, Ph
Minton, Dr. Sherman A., Jr., Indiana Univ. Medical Center, Indianapolis, Ind.	Z
*Mitchell, Dr. Allan C. G., Physics Dept., Indiana Univ., Bloomington, Ind.	Ph
Mockford, Edward L., 3916 Millersville Dr., Indianapolis, Ind.	Z
Molter, Rev. John A., Ph.D., Univ. of Portland, Portland, Ore.	Z
Monaco, Lawrence, Box 126, Notre Dame Univ., Notre Dame, Ind.	Z
*Montgomery, Dr. B. Elwood, Entomology Dept., Purdue Univ., W. Lafayette, Ind.	Z, Bo



Moore, Harry B., 105 E. Fowler Ave., W. Lafayette, Ind.	E
Moore, John Irwin, P.O. Box 3097, San Angelo, Tex.	G
*Morgan, Dr. W. P., 8501 S. Meridian St., Indianapolis, Ind.	Bo, Z
Morris, Dr. Charles S., East St., North Manchester, Ind.	Ph
Morrison, Harold, Entomology Res. Div., U. S. Dept. of Agriculture, Wash. 25, D. C.	Z
Moss, Dr. Melvin Lane, 52 Crystal Dr., Oakmont, Penn.	C
Motto, Harry L., Agronomy Dept., Univ. of Illinois, Urbana, Ill.	G
*Moulton, Benjamin, Flint Junior College, 1401 E. Court, Flint, Mich.	G
Mozen, Milton M., Col. of Agriculture, Dept. of Bio-Chemistry, Univ. of Wisconsin, Madison, Wisc.	C
Muhler, Dr. Joseph Charles, Chemistry Dept., Indiana Univ., Bloomington, Ind.	C
Mullin, Clayton A., P.O. Box 87, Burrows, Ind.	E
Mumford, Russell E., c/o Edwin S. George Reserve, Pinckney, Mich.	Z
*Munro, George W., 202 Waldron St., W. Lafayette, Ind.	G, Ph
Munsee, Jack R., 505 E. Locust St., Apt. B, Bloomington, Ind.	Z
Murphy, Ira Arthur, 22-7 Hoosier Cts, Bloomington, Ind.	C
Murphey, Rev. Michael J., CSC, Geology Dept., Univ. of Notre Dame, Notre Dame, Ind.	G
Murphy, Richard B., Chemistry Dept., Univ. of Wash., Seattle, Wash.	C
Murray, Dr. Haydn H., Geology Dept., Indiana Univ., Bloomington, Ind.	G
Murray, Dr. Herbert C., R.R. 1, Hickory Corners, Mich.	Ba
Murray, Dr. Leo T., 1227 Princeton, Billings, Mont.	G, Z, Bo
Murray, Merritt J., 2718 Oakland Dr., Kalamazoo, Mich.	Bo, Z
Murray, Prof. Raymond G., Anatomy Dept., Indiana Univ., Bloomington, Ind.	Z
Murray, Dr. Raymond W., C. Sc., Dept. of Sociology, Univ. of Notre Dame, Notre Dame, Ind.	A
Myers, Robert D., 12 University Ave., Hamilton, N. Y.	Ps
Neher, Prof. O. W., 608 E. Miami St., North Manchester, Ind.	Ba, Bo
Nelson, Dr. Wener L., Amerian Potash Inst., Life Building, Lafayette, Ind.	G
*Nester, Dr. Henry George, 307 City Hall, Indianapolis, Ind.	Z
*Neumann, Dr. George K., Anthropology Dept., Indiana Univ., Bloomington, Ind.	A
Neumann, Holm W., Anthropology Dept., Indiana Univ., Bloomington, Ind.	A
Newhouse, Florence M., 5864 Lowell Ave., Indianapolis, Ind.	Bo
Nichols, Kenneth E., Biology Dept., Valparaiso Univ., Valparaiso, Ind.	Bo, Z
Nicoll, Prof. Paul A., Physiology Dept., Indiana Univ., Bloomington, Ind.	Z
Nielsen, Blanche S., 1015 Crescent Ave., Fort Wayne 3, Ind.	G
Nieset, Rev. Carl R., St. Joseph's Col., Collegeville, Ind.	G
Nightenhelser, Kenneth Warren, R.R., Arcadia, Ind.	Ph
Niles, Edward H., 4071 College, Indianapolis, Indiana	C, M
Nisbet, Jerry J., 213-10 Halsey Dr., W. Lafayette, Ind.	Bo

Niswander, Dr. R. Emerson, Entomology Dept., Manchester Col., N. Manchester, Ind.	Z
Nixon, Victor E., 406 W. 9th St., Jasper, Ind.	Bo, Z
*Noble, Dr. Thomas B., 5556 N. Meridian St., Indianapolis, Ind.	A
Noyes, Dr. Bessie, Indiana State Teachers Col., Terre Haute, Ind.	Z
Nussbaum, Elmer, Taylor Univ., Upland, Ind.	Ph
O'Brien, Mrs. Gladys, 410 N. Chester, Indianapolis, Ind.	G
O'Brian, Dennis M., 154 Lexington Ave., Passaic, N. J.	Z
O'Hara, Rev. Frank J., Biology Dept., Univ. of Notre Dame, Notre Dame, Ind.	Z, Bo
O'Neal, Dr. Claude E., 265 W. Fountain Ave., Delaware, Ohio	Ba, Bo
O'Neal, Mrs. Perry, 11 E. 58th St., Indianapolis, Ind.	Bo
Ohlrogge, Dr. Alvin J., Agronomy Dept., Purdue Univ., W. Lafayette, Ind.	Bo, C
Orpurt, Dr. Philip A., Biology Dept., Manchester Col., N. Manchester, Ind.	Bo
Osborne, Clyde E., Jr., Pitman-Moore Co., 1200 Madison Ave., Indianapolis, Ind.	C
Osborn, Stephen W., Chemistry Dept., Indiana Univ., Bloomington, Ind.	C
*Osmun, Prof. John V., 249 Connolly, W. Lafayette, Ind.	Z
Osterman, Dr. Henry, 511 W. 6th St., Seymour, Ind.	C, Bo, Z
Otten, Dr. Ralph Edward, Darlington, Ind.	C, Ps
Overlease, William R., 608 Centennial Ave., Media, Pa.	Bo, G, Z
Overman, Paul Ware, 422 Harrison St., W. Lafayette, Ind.	M
Overmyer, Robert, 10001 S. Hoyne Ave., Chicago 43, Ill.	Ph
Overmire, Thomas G., 4924 Indianola Ave., Indianapolis, Ind.	Bo
Overstreet, Rose Alice, Univ. of Michigan, Ann Arbor, Mich.	Bo
*Palmer, Dr. C. M., Dept. of Health, Education, and Welfare, R. A. Taft Sanitary Eng. Center, 4676 Columbia Pkwy., Cincinnati, Ohio	Ba, Bo
Paradiso, S. M., 214 W. Lutz, W. Lafayette, Ind.	G
Park, Dr. Byron J., 420 S. Talley Ave., Muncie, Ind.	Z
*Parker, Dr. Dorothy, Calle Londres 45, Mexico City, Mexico	Bo
Paschall, Homer D., Ball State Teachers Col., Muncie, Ind.	Bo, Z
Patrick, Mrs. Mildred L., 2 Melissa Way, Terre Haute, Ind.	Ba
Patterson, Mrs. M. Hilbert, 5868 N. New Jersey St., Apt. 3, Indianapolis, Ind.	Z
Patton, John Barratt, Geology Dept., Indiana Univ., Bloomington, Ind.	G
Payne, Dr. Elmer C., 347 New Market Rd., Dunellen, N. J.	
*Payne, Dr. Fernandus, 620 Ballentine Rd., Bloomington, Ind.	Z
Payne, Hartsell, R.R. 1, Terre Haute, Ind.	Z
Payton, William D., R.R. 2, Box 649-A, Terre Haute, Ind.	Bo, Z
Peacock, Dr. John, 36 Bullroyd Cres., Girlington, Bradford 8, Yorks, England	C
*Peak, Philip, 2000 E. Second St., Bloomington, Ind.	M

Pearlman, Prof. N., Physics Dept., Purdue Univ., W. Lafayette, Ind.	Ph
*Pearson, Dr. Nathan E., Zoology Dept., Butler Univ., Indianapolis 7, Ind.	Z
Peasley, Prof. D. C., Physics Dept., Purdue Univ., W. Lafayette, Ind.	Ph
Peck, Dr. Franklin B., The Drake Apt. 401, 3060 N. Meridian St., Indianapolis, Ind.	Ba, Z
Pedlow, Margaret E., Indianapolis General Hospital, Indianapolis, Ind.	Ba
Pellett, Wilmer K., 4527 College Ave., Indianapolis, Ind.	Bo, Z, C
Pelton, Mrs. Jeanette S., 4746 Hinesley Ave., Indianapolis, Ind.	Bo
Pelton, Dr. John F., Dept. of Botany, Butler Univ., Indianapolis 7, Ind.	Bo
Perrey, Joseph I., 486 Board of Health Bldg., 1330 W. Michigan St., Indianapolis, Ind.	G
Perry, Dr. Tom G., 26 Stout's Creek Rd., Bloomington, Ind.	G
Peters, Lewis E., Jr., Biology Annex, Purdue Univ., Lafayette, Ind.	Z
Peterson, Dr. Lawrence Howard, 3929 Olive St., Kansas City, Mo.	Ph
Petersen, Prof. Quentin R., Wabash Col., Crawfordsville, Ind.	C
Pettay, Louanna, 703 N. Woodlawn Ave., Bloomington, Ind.	A
Pfaff, Richard Lee, 44 S. 21st St., Richmond, Ind.	G
Phillip, Marjorie, 415 N. Court St., Crown Point, Ind.	Bo
Phillippee, Dr. Maurice M., Agronomy Dept., Clemson Agricultural Col., Clemson, S. C.	
Phillips, Prof. Ralph W., 1121 W. Michigan, Indianapolis, Ind.	C
Phillips, William F., Research & Development Div., Commercial Solvents Corp., Terre Haute, Ind.	C
Pierson, Ralph C., 5924 Grandview Dr., Indianapolis, Ind.	Z
Pitkin, Dr. Edward Meyer, 195 E. Washington St., Martinsville, Ind.	Z
Pitman, Joe A., 552 Alden Rd., Sellersburg, Ind.	Z
Pittenger, Dr. Robert C., Eli Lilly & Co., Indianapolis, Ind.	Ba
Plasterer, Eiffel G., R.R. 5, Huntington, Ind.	Ph, C
Platt, Dr. Charles E., 309 Harrison Hall, DePauw Univ., Greencastle, Ind.	Ps
Plummer, Dr. Gayther L., Botany Dept., Univ. of Georgia, Athens, Ga.	Bo
Poe, Elizabeth, 4120 S. Landess, Marion, Ind.	Bo, Z
*Polley, Dr. J. Crawford, 416 W. Wabash, Crawfordsville, Ind.	M
Polzin, William J., 1219 E. 56th St., Indianapolis, Ind.	Ba
*Porter, Dr. Charles Lyman, 924 N. Chauncey Ave., W. Lafayette, Ind.	Bo
Post, Francis Alison, 220 Gough Ave., Boonville, Ind.	Bo, G, Ph
Postlethwait, Dr. S. N., Botany Dept., Purdue Univ., W. Lafayette, Ind.	Bo
*Potter, Dean Audrey A., 517 Russel St., W. Lafayette, Ind.	M, Ph
*Powell, Dr. Horace M., Eli Lilly & Co., Indianapolis, Ind.	Ba
Powelson, Prof. Dorothy M., Biological Science Dept., Purdue Univ., W. Lafayette, Indiana	Bo, Z
Pray, Dr. Enos G., Hanover, Ind.	Z

Proctor, Mrs. Berdine R., 4726 E. Washington St., Indianapolis, Ind.	Bo, Z
Proffitt, Dr. Max A., Science Dept., Indiana State Teachers Col., Terre Haute, Ind.	Z
Quinn, Sister Mary Lorita, RSM, Box 126, Univ. of Notre Dame, Notre Dame, Ind.	Z
Quinn, Robert Byron, 723 S. Adams St., Arlington, Va.	Ph
Ragains, Robert A., 4210 Woodberry St., University Park, Hyattsville, Md.	Bo, Z
Ramsey, Robert D., 525 Arthur Dr., Indianapolis, Ind.	Ba, Bo, Z
Ramsey, Mrs. Viola, R.R. 9, Bloomington, Ind.	C, M
Ransome, Jack C., Geography Dept., Indiana Univ., Bloomington, Ind.	G
Rarick, Maurice S., 4954 Patricia St., Indianapolis, Ind.	
Rasmussen, Rasmus George, Rasmussen Ct., New Albany, Ind.	Bo, G, Z
Rau, Herbert L., Jr., 207 N. McKinley, Muncie, Ind.	G
Rauth, Adolph W., Consumer's Power Bldg., Jackson, Mich.	G, Ph, M
Records, Ralph L., P.O. Box 128, Edinburg, Ind.	C
Rector, Avis, 405 E. First, Bloomington, Ind.	C
Rector, Mrs. Marion A., 104 Riley Rd., Muncie, Ind.	Bo, Z
Redding, Mrs. Bloor, 3427 Carrollton Ave., Indianapolis, Ind.	Bo
Reddix, Lloyd E., 2409 Redfern Dr., Indianapolis, Ind.	Ph
*Reed, Harry J., Agr. Exp. Sta., Purdue Univ., W. Lafayette, Ind.	Bo, C, G
Reed, Helen E., 502 N. Meridian St., Lebanon, Ind.	Bo, Z
Rees, James R., Univ. of Tennessee, Knoxville, Tenn.	Bo
Reeves, James A., R.R. 2, W. Terre Haute, Ind.	G
Reifstack, Werner Reinhard, c/o Henry Droege, R.R., Ossian, Ind.	Z
Reimer, Charles W., 2341 Cedar Lane, Secane, Penn.	Bo
Reitz, Dr. Henry C., R.R. 10, Lafayette, Ind.	C
*Remmers, Hermann H., Psychology Dept., Purdue Univ., W. Lafayette, Ind.	Ps
Repaske, Dr. Roy, Bacteriology Dept., Indiana Univ., Bloomington, Ind.	Ba
Reyniers, Prof. James A., Lobund Inst., Univ. of Notre Dame, Notre Dame, Ind.	Ba
Reynolds, Dr. Albert E., Zoology Dept., DePauw Univ., Greencastle, Ind.	Z
Reynolds, Leon M., Science Dept., Ball State Teachers Col., Muncie, Ind.	Ph
Rice, Dr. Marion M., Box 537, Route 10, Richmond, Va.	Bo, Ba
Rice, Ward J., 5250 N. Pennsylvania St., Indianapolis, Ind.	C, Z
Richards, Dr. R. Ruth, 3530 E. 38th St., Apt. C2, Indianapolis, Ind.	Ba, Bo, Z
Richey, Gilbert T., Jr., 115 S. 11th St., Hudson, Wis.	C
Ricketts, Dr. John A., 236 Hillside, Greencastle, Ind.	C
Riecken, Dr. Wm. E., Millsaps Col., Jackson, Miss.	Bo, Z

Riedhart, Joseph M., Biological Science Dept, Purdue Univ., W. Lafayette, Ind.	Bo
Riely, Samuel L., Jr., Wyandotte, Ind.	G
Rifenburgh, Dr. S. A., 246 Marstellar St., W. Lafayette, Ind.	Z
Roberts, Carleton W., c/o Polymer Labs., Dow Chemical Co., Midland, Mich.	C
Roberts, Claude M., U. S. Geol. Surv., 611 N. Park Ave., Rm. 403, Indianapolis, Ind.	G
Roehm, John Christian, R.F.D. 1, Tarpon Springs, Fla.	G, Ps
Rohrer, Charles S., Chemistry Dept., Indiana Univ., Bloomington, Ind.	C
Romberg, Paul F., Wabash Col., Crawfordsville, Ind.	Bo
Roney, Calud H., 3013 Fairview, Anderson, Ind.	M
Rose, James B., 447 N. Bosart, Indianapolis, Ind.	Ph
Rose, L. S., Senior H. S., New Albany, Ind.	
Rosenshein, Joseph S., 34 S. Rangeline Rd., Carmel, Ind.	G
Rosenthal, Prof. Arthur, Recitation Hall, Purdue Univ., W. Lafayette, Ind.	M
Roth, Paul L., 1033 N. Denison, Manhattan, Kans.	Bo, Z
Rothrock, Henry S., Exp. Sta., E. I. DuPont de Nemours Co., Wilmington, Del.	C
Rowe, Dr. Edward J., 3834 N. Campbell Ave., Indianapolis, Ind.	C
Russell, Merwyn A., 1625 N. W. 15th St., Miami, Fla.	Ph
Salter, Lewis S., Wabash Col., Crawfordsville, Ind.	Ph
Scarborough, Dr. Barron B., DePauw Univ., Greencastle, Ind.	Ps
Schaal, Mr. Lawrence A., Agronomy Dept., Purdue Univ., W. Lafayette, Ind.	G
Schaap, Dr. Ward B., Chemistry Dept., Indiana Univ., Bloomington, Ind.	Z
Schatzlein, Frank, Zoo. Dept., Indiana Univ., Bloomington, Ind.	Z
Scheffe, Charles Earl, 609 Middle Dr., Woodruff Pl., Indianapolis, Ind.	Bo
Schipper, Dr. Arthur L., Univ. of Notre Dame, Notre Dame, Ind.	Bo, Z
Schmidt, Frederic Cowles, 209 S. Union St., Bloomington, Ind.	C
Schmidt, Robert Sherwood, 2008 W. Main, Muncie, Ind.	Z
Schneider, William A., Box 1, Grad. Res. Center, Bloomington, Ind.	A
Schneller, Myrtle V., Jordan Hall, Zoology Dept., Indiana Univ., Bloomington, Ind.	Z
*Schockel, Prof. Bernard H., 318 Third St., P.O. Box 134, Aurora, Ind.	G
Schraam, Dr. J. R., 904 University Ave., Bloomington, Ind.	Bo
Schuck, Dr. Cecilia, 403½ Waldron St., Lafayette, Ind.	C
Schuder, Donald L., Entomology Dept., Agr. Exp. Sta., Annex, Purdue Univ., W. Lafayette, Ind.	Z
Schulz, Richard W., Physics Bldg., Purdue Univ., W. Lafayette, Ind.	Ph
Schuster, Robert L., Civil Engineering Dept., Purdue Univ., W. Lafayette, Ind.	G
Schwan, Theodore Carl, 154 McIntyre Ct., Valparaiso, Ind.	C
Schwark, Mrs. Sylvia D., Apt. 3, 179 Cambridge Blvd., Buffalo, N. Y.	C



Schweiger, Dr. Leonard B., Miles Research Labs., Elkhart, Ind.	Ba
Schwein, John H., 208 E. Walnut St., Brownstown, Ind.	C
Seofield, Robert E., R. R. 3, Box 246, Chesterton, Ind.	Bo, Z
Scott, Dr. J. Paul, Jackson Lab, P.O. Box 847, Bar Harbor, Me.	A, Ps, Z
Seaman, Don E., Biological Sciences Dept., Purdue Univ., W. Lafayette, Ind.	Bo
Seaton, Jerome P., 905 N. Chauncey Ave., W. Lafayette, Ind.	G
Seifert, Dr. R. L. E., Chemistry Dept., Indiana Univ., Bloomington, Ind.	C
Seitner, Philip Gordon, 1315 New Hampshire Ave., N. W., Washington 6, D. C.	Bo, Z
Setzler, Dr. Frank Maryl, U. S. Nat. Mus., Washington, D. C.	Z
*Seybert, Dr. John E., 4842 Kenwood Ave., Indianapolis, Ind.	Bo, C
*Seymour, Dr. Keith M., Chemistry Dept., Butler Univ., Indianapolis 7, Ind.	C
Shaffer, Robert E., c/o Paul Shaffer, 437 S. 11th St., New Castle, Ind.	Bo, Z
Shallenburg, Mrs. John, Richmond Sr. H. S., Richmond, Ind.	
Shalucha, Dr. Barbara, Botany Dept., Indiana Univ., Bloomington, Ind.	Bo
Shaner, Elizabeth J., 617 W. Lexington Ave., Fort Wayne, Ind.	Z
Shaver, Robert J., Box 126, Biology Dept., Notre Dame Univ., Notre Dame, Ind.	Z
Shay, Dr. J. R., Dept. of Botany and Plant Path., Purdue Univ., W. Lafayette, Ind.	Bo
Sheehan, Rev. Robert J., Biology Dept., Univ. of Notre Dame, Notre Dame, Ind.	Z
Sheets, Albert, Jr., 155 Parkway, Whiteland, Ind.	Z
Shellabarger, Claire J., Brookhaven National Lab., Upton, L. I., N. Y.	Z
*Shelley, Robert L., 3030 Ethel Ave., Muncie, Ind.	C
Sherockman, Dr. Andrew A., 30 Duncan Ave., Burgettstown, Penn.	
Shideler, William Henry, 110 S. Campus Ave., Oxford, Ohio	G
Shiner, Dr. V. J., Jr., 111 N. Dunn St., Bloomington, Ind.	C
Shipley, Prof. Myrtle Edna, 905 Himes St., Huntington, Ind.	M, Ph, Ps
Shock, Dr. N. W., U. S. Public Health Service, Section on Gerontology, Baltimore City Hospital, Baltimore, Md.	Ps
Shockley, Kenneth E., 1216 W. Madison St., Kokomo, Ind.	Bo
Shontz, Geraldine, Science Dept., Indiana State Teachers Col., Terre Haute, Ind.	Bo, Z
Showalter, Ralph W., 5601 N. Meridian St., Indianapolis, Ind.	Ba, C
Showalter, Robert K., R.R. 4, Box 110, Gainesville, Fla.	Bo
Shrigley, Dr. Edward W., Microbiology Dept., Indiana Univ., Bloomington, Ind.	Z
Shriner, Walter Owen, 2525 N. 9th St., Terre Haute, Ind.	M
Shutts, Clarence F., Wabash College, Crawfordsville, Ind.	Bo
Sichak, Stephen, 1637 Brown Ave., Whiting, Ind.	Ba
Siebe, Mrs. Grace D., Microbiology Dept., Indiana Univ. Medical Center, 1040-1234 W. Michigan St., Indianapolis, Ind.	Ba
Siegrist, Rev. U. J., St. Joseph's Col., Collegeville, Ind.	Bo

Silvey, Oscar William, 900 Newton St., College Station, Tex.	Ph
Simpson, Ralph S., 2767 Baur Dr., Indianapolis, Ind.	C
Singleton, Dr. J. R., Biological Sci. Dept., Purdue Univ., W. Lafayette, Ind.	Bo
Sinski, James T., Biology Dept., Spring Hill Col., Mobile, Ala.	Bo
Sisson, Robert, 90 S. Sycamore St., Martinsville, Ind.	G
Siverly, Dr. R. E., Ball State Teachers Col., Muncie, Ind.	E
Skinner, Olind, Ambia, Ind.	Ph
Sloan, Donald Eugene, Grantsburg, Ind.	Bo
Slusser, Mack W., Box 186, Lebanon, Ind.	C
Smiley, Bill B., 1671 Home Park Ave., Decatur, Ill.	Z
Smith, Arthur L., Central H. S., South Bend, Ind.	
Smith, Prof. Aubrey H., Mathematics Dept., Purdue Univ., W. Lafayette, Ind.	M
*Smith, Dr. Benjamin H., Science Dept., Indiana State Teachers Col., Terre Haute, Ind.	Bo
Smith, Carl A. Jr., Economic Biology Dept., Pillsbury Mills, Inc., Minneapolis, Minn.	E
Smith, Dale Metz, Botany Dept., Univ. of Kentucky, Lexington, Ky.	Bo
Smith, Mrs. Fred S., 6840 Dover Rd., Indianapolis, Ind.	G
Smith, John M., The Georgia Kaolin Co., Dry Branch, Ga.	G
Smith, Lewis O., Jr., Valparaiso Univ., Valparaiso, Ind.	C
Smith, Dr. Marsh Hunter, Box 316, Goodland, Ind.	Z, Ba
Smith, Ned Myron, 2331 E. 7th St., Bloomington, Ind.	G
*Smith, Orrin Harold, 310 Greenwood Ave., Greencastle, Ind.	Ph
Smith, Robert E., 1515 N. Chester, Indianapolis, Ind.	Z
Smith, Mrs. Vivian D. Jeffers, 323 Elm St., Lawrenceburg, Ind.	Bo, Z
Smithberger, Andrew T., 2085 Oakmont Park, E. Dr., South Bend, Ind.	
Smolar, Rev. Joseph, St. Joseph's Col., Colledgeville, Ind.	Bo, Z, C
Smucker, Silas J., 403 S. Weston St., Rensselaer, Ind.	Bo
Somers, Perrie D., Jr., 9912 Harriet Ave., So., Minneapolis, Minn.	C
*Sonneborn, Dr. Tracy M., Zoology Dept., Indiana Univ., Bloomington, Ind.	Z
Sowders, Ted M., 3214 N. Bolton Ave., Indianapolis, Ind.	Ph
Spangler, Iva, 128 E. Foster Pkwy., Ft. Wayne, Ind.	Bo, Z
Spencer, Dr. Joseph Nuten, R.R. 6, Box 634, Terre Haute, Ind.	Z, Bo, C
Speroff, B. J., 819 Conkey St., Hammond, Ind.	Ps
Sperry, Dr. Theodore M., Biology Dept., Kansas State Teachers Col., Pittsburg, Kans.	Bo, Z
Sprague, Dr. Austin, 1008 S. College, Greencastle, Ind.	Ph
Stanley, Dr. Paul E., School of Aeronautical Engineering, Purdue Univ., W. Lafayette, Ind.	Ph
Stanley, Dr. Robert W., Physics Dept., Purdue Univ., W. Lafayette, Ind.	Ph
Stares, Mrs. Helene, 2915 Guilford, Indianapolis, Ind.	Bo
Stark, Ralph W., 122 Lebanon St., Lebanon, Ind.	Bo
Stark, Wm. Max, Microbiological Res. Dept., Eli Lilly & Co., Indianapolis, Ind.	Ba

- \*Starkey, Prof. Otis Paul, Geography Dept., Indiana Univ.,  
Bloomington, Ind. G
- Starr, Dr. Richard C., Botany Dept., Indiana Univ.,  
Bloomington, Ind. Bo
- Stearns, Forest, Botany & Plant Path. Dept., Agr. Exp. Sta.,  
Purdue University, W. Lafayette, Ind. Bo
- Steinmetz, Charles H., 2009 Dale Rd., Norwood (Cincinnati 12), Ohio Z
- Stephenson, Wm. K., Earlham Col., Richmond, Ind. Z
- Stevenson, Dr. Forrest F., 3529 Peach Tree Lane, Muncie, Ind. Bo
- Stevenson, Prof. William H., Ball State Teachers Col., Muncie, Ind. G
- Stewart, Lola, 341 McKinley St., Gary, Ind. Bo, Z
- Stitt, Loyd L., 321 W. Prairie Ave., Wheaton, Ill. E
- \*Stockdale, Dr. Paris, Geology Dept., Univ. of Tennessee,  
Knoxville, Tenn. G
- Stockton, Sister Mary Rose, Marian Col., 3200 Cold Springs  
Rd., Indianapolis, Ind. C
- Stone, Prof. Ralph Bushnell, 615 Russell St., W. Lafayette, Ind. M
- Stone, Dr. Robert L., Lilly Research Laboratory, Eli Lilly and  
Company, Indianapolis, Ind. Ba
- Stork, Mary Louise, 218 Thirteenth Ave., North, St. Petersburg,  
Fla. Ba, C, Bo
- Strain, Dr. Edward R., 113 Lindenwald Dr., Indianapolis, Ind. Ps
- Streightoff, Frank, 250 N. Home Ave., Franklin, Ind. Ba
- \*Strickler, Dr. Alvin, 312 Michigan Ave., Frankfort, Mich. C
- Stuck, Mrs. Dollie N., 1309 N. Penn. St., Indianapolis, Ind. Bo
- Sturm, Richard C., 925 Southern Ave., Indianapolis, Ind. Bo
- Sullivan, Gerald, R.R. 3, Box 342, Elwood, Ind. Bo, Z
- Sullivan, Russell, 2908 N. Meridian St., Indianapolis, Ind. M, Ph
- Sulzer, Elmer G., Indiana Univ., Bloomington, Ind. G
- Sutter, Delos M., 2018 Westfield Terr., Bethlehem, Penn. Ph
- Suttle, S. Woodrow, Indiana State Teachers Col., Terre Haute, Ind. Z
- Swanson, Edward E., 7920 Barlow Dr., Indianapolis, Ind. Bo, C
- Swickard, Dayton A., 215 Stratton Way, Decatur, Ind. Ba, Bo, Z
- Taggart, Matt F., R.R. 3, Box 31, Cassopolis, Mich. C
- Tallman, Dr. Arthur Wince, 179 Hudson Terr., Piermont, N. Y. Ba, C
- Talvenheimo, Dr. Gerhart, P.O. Box 427, Marcus Hook, Penn.
- Tasker, Dr. Roy C., Biology Dept., Bucknell Univ., Lewisburg,  
Penn. Bo, Z
- Taylor, John G., Agr. Eng. Dept., Purdue Univ., W. Lafayette, Ind. Ph
- Teder, John H., Jasper, Ind. Bo
- Telfair, Dr. David, Earlham Col., Richmond, Ind.
- \*Tetrault, Philip Armand, 235 DeHart St., W. Lafayette, Ind. Ba, C
- Thanos, Dr. Andrew, Dept. K-490, Eli Lilly & Co., Indianapolis, Ind. Bo
- \*Thomas, Prof. Tracy Yerkes, N. Fee Lane, R.R. 10, Bloomington, Ind. M
- Thomas, Virgil A., 83 W. Main St., Greenfield, Ind. G, Bo, Z
- Thompson, Harold B., 8501 Wicklow, Cincinnati 36, Ohio Ph
- Thomson, William David, Geology Dept., Indiana Univ.,  
Bloomington, Ind. G
- Thornburg, Noel G., 538 S. Main St., Parker, Ind. Bo

*Thornbury, William D., Geology Dept., Indiana Univ., Bloomington, Ind.	G
Thorp, Prof. James, Earlham Col., Richmond, Ind.	G
Tinkle, Dr. Wm. J., Biology Dept., Anderson Col., Anderson, Ind.	Bo, Z
Toms, William L., Indianapolis News, Indianapolis, Ind.	A
*Torrey, Dr. Theodore W., Zoology Dept., Indiana Univ., Bloomington, Ind.	Z
Touloukian, Dr. Y. S., School of Mech. Eng., Purdue Univ., W. Lafayette, Ind.	Ph
Trabant, Prof. E. A., 215 Forest Hills Dr., W. Lafayette, Ind.	M
Traynelis, Dr. V. J., Chemistry Dept., Univ. of Notre Dame, Notre Dame, Ind.	C
Trefz, Mrs. Lettie Page, 953 N. Audubon Rd., Indianapolis, Ind.	Bo
Trimble, Dr. Otis Carroll, 7802 Wildwood Dr., Tacoma Park 12, Md.	Ps
Trippel, Albert W., 904 E. 75th St., Auburn, Ind.	Z
Truman, Dr. Lee C., 6242 N. Temple Ave., Indianapolis, Ind.	Z
Tryon, Rolla M., Jr., Botany Dept., Univ. of Calif., Berkeley 4, Cal.	Bo
Tuan, Yi-Fu, Geography Dept., Indiana Univ., Bloomington, Ind.	G
Turbes, Calvin C., D. V. M., 417 S. Fess St., Bloomington, Ind.	C
Uible, Howard E., Route 2, Bethel, Ohio	Ba, Bo, PT, E
Ullstrup, Dr. Arnold John, Botany & Plant Path. Dept., Purdue Univ., W. Lafayette, Ind.	Bo
Ulman, P. T., R.R. 2, Noblesville, Ind.	Bo, Z
Ulrich, H. P., Agr. Exp. Sta., W. Lafayette, Ind.	G
Van Derbilt, Betty, 5131 Central Ave., Indianapolis, Ind.	G
Van Dorn, Estil B., 1053 W. 35th St., Indianapolis, Ind.	C, Ph
Van Dyke, Prof. George D., Earlham Col., Richmond, Ind.	Ph
Van Horn, Marie, Coal City, Ind.	C
Van Scoik, William S., 4009 Greendale Dr., Fort Wayne, Ind.	E
Van Wagtendonk, Dr. Willem Johan, Jordan Hall, Indiana Univ., Bloomington, Ind.	C, Z
Vaughn, Thomas H., Pabst Brewing Co., 310 Merchandise Mart, Chicago 54, Ill.	C
Vig, Reuben J., 3023 W. Morris St., Indianapolis, Ind.	G
*Visher, Dr. Stephen S., 816 E. 2nd St., Bloomington, Ind.	G
*Voeglin, Dr. Charles F., Indiana Univ., Bloomington, Ind.	A, G
Voeglin, Dr. Erminie, 528 Highland Ave., Bloomington, Ind.	A
Volk, Dr. N. J., 1137 Glenway, W. Lafayette, Ind.	Bo
Wagner, Kenneth A., Biology Dept., Norfolk Div., Col. of William & Mary, Norfolk, Va.	Bo
Wahl, Lucille, 941 Hervey St., Indianapolis, Ind.	Bo
Wakefield, Mrs. Eleanor K., Olivet College, Olivet, Mich.	C
Waldschmidt, Rudolph Charles, 821 LaPorte Ave., Valparaiso, Ind.	Ps
Wallace, Dr. Atwell Milton, Botany Dept., Ohio Univ., Athens, Ohio	Bo, Z
Wallace, Charles E., Rossville, Ill.	M, Ph, C
Wallace, Edith, 620 Van Buren St., Gary, Ind.	Bo, Z

- \*Wallace, Frank N., 311 W. Washington St., Indianapolis, Ind. Bo, Z  
 Wallace, John H., Bausch & Lomb Optical Co., Scientific  
 Instruments Div., 1324 Eye St., N. W., Washington, D. C. Bo  
 Walter, E. V., Box 495, Lafayette, Ind. Z  
 Wampler, Lloyd C., 820 N. Center St., Plymouth, Ind. Z  
 Wantland, Kenneth W., 2108 Kessler Blvd., E. Dr., Indianapolis, Ind. C  
 Ward, Daniel B., 211 W. Pike St., Crawfordsville, Ind. Bo  
 Ward, Mrs. Gertrude L., Biology Dept., Earlham Col., Earlham,  
 Ind. Bo, Z  
 Warner, Dr. Glen W., Lakeville, Ind. Ph, M  
 Warren, Charles P., 6323 S. May St., Chicago, Ill. A  
 Wayne, Dr. William John, Geological Surv., Indiana Univ.,  
 Bloomington, Ind. G  
 \*Weatherwax, Dr. Paul, Botany Dept., Indiana Univ.,  
 Bloomington, Ind. A, Bo  
 Weaver, Dr. E. Eugene, Wabash Col., Crawfordsville, Ind. C  
 Webb, Dr. Harold D., 812 W. Delaware St., Urbana, Ill. Ph  
 Webb, Laura Bernice, Franklin, Ind. Bo, Z  
 Webb, Prof. Richard L., 1408 Maxwell Lane, Bloomington, Ind. Z  
 Weber, Glen C., 1330 W. Michigan, Indianapolis, Ind. Ba, C  
 Weber, Robert Claude, 2724 Fairfield Ave., Fort Wayne, Ind. Bo, Z  
 Weber, Russell G., 416 Governor St., South, Iowa City, Iowa Bo, Z  
 Weber, Walter, 47 S. Pennsylvania St., Indianapolis, Ind. C, Bo, E  
 Webster, Dr. Jackson, Zoology Dept., Hanover Col., Hanover, Ind. Z  
 Webster, Dr. Rex N., 2101 N. Penn. St., Apt. 4, Indianapolis, Ind. Ba, Bo  
 Weddle, Mrs. Virginia, Dunwekin R.R. 4, Nashville, Ind. Bo, Z  
 Weigand, Dr. Clayton G., 5234 N. Capitol Ave., Indianapolis, Ind. Z  
 Weinberg, Dr. Eugene D., Bacteriology Dept., Indiana Univ.,  
 Bloomington, Ind. Ba  
 \*Welch, Dr. Winona H., 112 Bloomington St., Greencastle, Ind. Ba, Bo  
 Welch, Dr. Zara D., Chemistry Dept., Purdue Univ.,  
 W. Lafayette, Ind. C  
 \*Welcher, Dr. Frank, R.R. 13, Box 426, Indianapolis, Ind. C  
 Wells, Dr. Agnes E., 903 Court St., Saginaw, W. S., Mich. M  
 Wells, David, Crawfordsville Jr., Sr. H. S., 705 W. Water St.,  
 Crawfordsville, Ind. Ph, C  
 Wells, Dr. H. B., Indiana Univ., Bloomington, Ind.  
 Wells, Milo, 1590 Elbur Ave., Lakewood 7, Ohio Ph  
 Westmeyer, Paul H., Univ. H. S., Urbana, Ill. G  
 Whitacre, Francis M., 148 Shoreview Rd., Manhasset, Long  
 Island, N. Y. C  
 White, Dr. Harold K., Box 273, Hanover, Ind. C  
 White, Prof. Joe L., Agronomy Dept., Purdue Univ.,  
 W. Lafayette, Ind. G  
 \*White, Dr. John, 2235 N. 10th St., Terre Haute, Ind. C  
 Whiting, Russell W., Service Mgr., Arab Pest Control Co.,  
 2701 Winthrop, Indianapolis, Ind. E  
 \*Wickwire, Prof. Grant T., Geology Dept., Hanover Co., Hanover, Ind. G  
 Wier, Charles E., Geological Surv., Indiana Univ., Bloomington, Ind. G



- \*Wildman, Earnest A., Chemistry Dept., Earlham Col., Earlham,  
Ind. C, Ph  
Wilhelm, Ernest John, 1422 E. LaSalle Ave., South Bend, Ind. C  
Wilkinson, Paul D., Indiana State Teachers Col., Terre Haute, Ind. C  
Wilkinson, Isaac Ross, R.R. 3, Angola, Ind. Bo, Z  
Wilkinson, Stanley R., Agronomy Dept., Purdue Univ.,  
W. Lafayette, Ind. G  
Willer, William Arnold, Westwood, R.R. 3, Fort Wayne, Ind. Bo, Z, Ph  
Williams, Dr. Eliot C., Jr., Zoology Dept., Wabash Col.,  
Crawfordsville, Ind. Z  
\*Williams, Dr. Kenneth P., 702 E. 10th St., Bloomington, Ind. M  
Wilson, Kenneth S., 6852 Magoun, Hammond, Ind. Bo  
\*Wilson, Mark Curtis, Entomology Dept., Purdue Univ.,  
W. Lafayette, Ind. Bo, Z  
Wilson, Nixon A., Entomology Dept., Purdue Univ.,  
W. Lafayette, Ind. E, Z  
Wimmer, Ruth M., 2222 Hoagland Ave., Apt. 3, Fort Wayne, Ind. C  
Winkel, Theodore A., 607 N. East St., Madison, Ind. C  
Winn, Richard E., Physics Dept., Indiana State Teachers Col.,  
Terre Haute, Ind. Ph.  
Wischnitzer, Saul, Biology Dept., Univ. of Notre Dame,  
Notre Dame, Ind. Z  
Wise, Robert Elliott, Purdue Univ., Center, 220 E. Jefferson,  
Fort Wayne, Ind. M, Ph  
Wiseman, Dr. P. A., 309 S. Nichols Ave., Muncie, Ind. C  
Witmer, Dr. Samuel W., 1608 S. 8th St., Goshen, Ind. Bo, Z  
Woerner, Dr. Dale E., Hanover, Col., Hanover, Ind. C  
Wolfe, Harold E., 812 S. Fess Ave., Bloomington, Ind. M  
Wolfe, Ruby, 3267 College Ave., Indianapolis, Ind. Bo, Z  
Wollan, Gerhard N., 4606 Woodsdale Lane, Fort Wayne, Ind. M  
Wood, Darl F., 201 Miami Club Dr., Mishawaka, Ind. G, Ph, C  
Wood, Elmo S., Box 14, New Castle, Ind. C, Bo  
Wood, Joseph M., Botany Dept., Indiana Univ., Bloomington, Ind. Bo  
Wood, Vida G., Taylor University, Upland, Ind. Bo  
Woods, Prof. Kenneth B., 902 N. Chauncey Ave., W. Lafayette, Ind. G  
Worrell, Prof. Francis T., DePauw Univ., Greencastle, Ind. Ph  
Wrathall, James E., 33 Green Ave., Devenham, Northwich,  
Cheshire, Eng. G  
Wright, Howard F., 3604 N. Temple, Indianapolis, Ind. Ba, Bo, Z  
Wright, Dr. Jonathon W., Morris Arboretum, Chestnut Hill,  
Philadelphia, Pa. Bo  
Wuest, Rev. Albert A., Chemistry Dept., St. Joseph's Col.,  
Collegeville, Ind. C  
Wykoff, Jack N., Earlham College, Richmond, Ind. Z
- Yarian, Dean R., Chemistry Dept., Univ. of Washington,  
Seattle, Wash. C  
Yarnelle, Dr. John E., Mathematics Dept., Hanover Col., Hanover, Ind. M  
\*Young, Dr. Frank N., Jr., Zoology Dept., Indiana Univ.,  
Bloomington, Ind. E, Z

- Youse, Howard Ray, Botany Dept., DePauw Univ., Greencastle, Ind. Bo
- \*Yuncker, Dr. Truman G., University College of the West Indies,  
Mona, St. Andrews, Jamaica, B. W. I. Ba, Bo
- Zakewska, Barbara, 4610 W. 115th Place, Alsip, Ill.
- Zeller, Frank J., Zoology Dept., Indiana Univ., Bloomington, Ind. Z
- \*Zerfas, Dr. Leon G., Box 70, R.R. 1, Camby, Ind. Ba, Z
- Zetterberg, Edward, 1101 N. Jefferson St., Muncie, Ind. C
- Zieroff, Sister Gertrude Marie, Marian Col., 3200 Cold Springs  
Road, Indianapolis, Ind. M
- Zimmerman, Harold A., 2218 Linden St., Muncie, Ind. Z
- Zirkle, Dr. George Anderson, Psychology Dept., Hanover Col.,  
Hanover, Ind. Ps
- Zorn, Dr. Max A., Mathematics Dept., Indiana Univ.,  
Bloomington, Ind. M

## INDIANA JUNIOR ACADEMY OF SCIENCE

---

### OFFICERS FOR 1957

President: BETTY JANE GOUGH, Science Club, New Castle High School, New Castle.

Vice-President: WILFRED DAY, Phy-Chem Club, Our Lady of Providence High School, Clarksville.

Secretary: MARGARET REYNOLDS, Science Club, Washington High School, Indianapolis.

Members of the Council: Edith Wallace, Gary (1953-1957); Jerry Motley, Indianapolis (1954-1958); Jack Munsee, Bloomington (1955-1959); Ernest Litweiler, South Bend (1956-1960); Mrs. Elizabeth H. Crider, Indianapolis (1957-1961).

### PROGRAM OF THE TWENTY-FIFTH ANNUAL MEETING

OCTOBER 19, 1957

Assembly Room, Speech Hall, DePauw University, Greencastle, Indiana.  
8:30-9:30 a. m. Registration and Placement of Exhibits, Rooms 122, 113, Harrison Hall.

9:40-10:30 a. m. Career conferences in mathematics and science by faculty representatives of DePauw University.

10:30-11:30 a. m. Visits to campus instructional and research laboratories.

11:30 a. m.-12:30 p. m. Luncheon, Union Cafeteria.

1:00-2:00 p. m. Business meeting and election of officers. Assembly Room, Speech Hall.

2:00-4:00 p. m. The Assembly Program, Assembly Room, Speech Hall.

**Papers:** Betty Jane Gough, presiding.

1. *X-ray Induced Mortality in the Common Gnat or Fruit Fly*, Terry Meyers, Junior Explorers of Science, Lebanon High School, Lebanon.
2. *Magnesium Production*, James Hartman, Albertus Magnus Science Club, Central Catholic High School, Fort Wayne.
3. *Acceleration of Metamorphosis of Rana Catesbeiana (bullfrog) by the Use of Thyroid Extract*, Beverly Twigg, Adams Walton Club, Adams High School, South Bend.
4. *The M-wing and Its Possibilities*, Curtis Fischbach, Junior Academy of Science Club, Central-Junior High School, South Bend.

5. *Diamagnetism*, David Swinehart, Albertus Magnus Science Club, Central Catholic High School, Fort Wayne.
6. *The Third Kingdom*, William Forgey, Biology Club, Lew Wallace High School, Gary.
7. *A Morphological Study of Early Regressive Changes in the Mammas of Male and Female Mice Upon the Removal of Estrogen Stimulation*, Julia Freeman, Science Club, Howe High School, Indianapolis.
8. *Slime Molds*, Hazel Cuffey, Junior Academy of Science Club, University High School, Bloomington.
9. *Terramycin Research on the Reproductive Organs of Chickens*, Gary Holobek, Science Club, Howe High School, Indianapolis.
10. Motion Picture—*A Career in Bacteriology*, edited by Drs. Leland S. McClung and Walter Konetzka, Department of Bacteriology, Indiana University.
11. *Microtechnique* (illustrated), Betty Jane Gough, Science Club, New Castle High School, New Castle.
12. *Bio-Con Arboretum*, Junior Academy of Science Club, South Side High School, Fort Wayne.

#### MINUTES

The twenty-fifth annual meeting of the Indiana Junior Academy of Science was held Saturday, October 19, 1957, in Harrison and Speech Halls of DePauw University, Greencastle, Indiana.

Eight exhibits of science projects by high school students were displayed in rooms 122 and 113 of Harrison Hall beginning at 8:30 a. m. The exhibits included a study of magnesium production, metamorphosis of the tadpole, trees for an arboretum, electronic lamp control, a mineral collection, and a model plane with M-wing design.

Career conferences in scientific fields were held at 9:40 a. m. by members of the faculty of DePauw University. The science areas from which students could choose included astronomy, botany, bacteriology, chemistry, geology, geography, mathematics, physics, psychology and zoology. The contributions by the DePauw staff were greatly appreciated by members of the Junior Academy. Faculty members who presented the career conferences also conducted informative tours of the science laboratories.

The annual business meeting was called to order at 1:00 p. m. in Speech Hall by the president, Betty Jane Gough of New Castle High School, New Castle. The new and old members of the Junior Academy were welcomed. The president expressed her thanks to each science club for the information received for the Junior Academy News-Letter. She also suggested that the secretaries of science clubs continue to send information that should be included in the News-Letter.

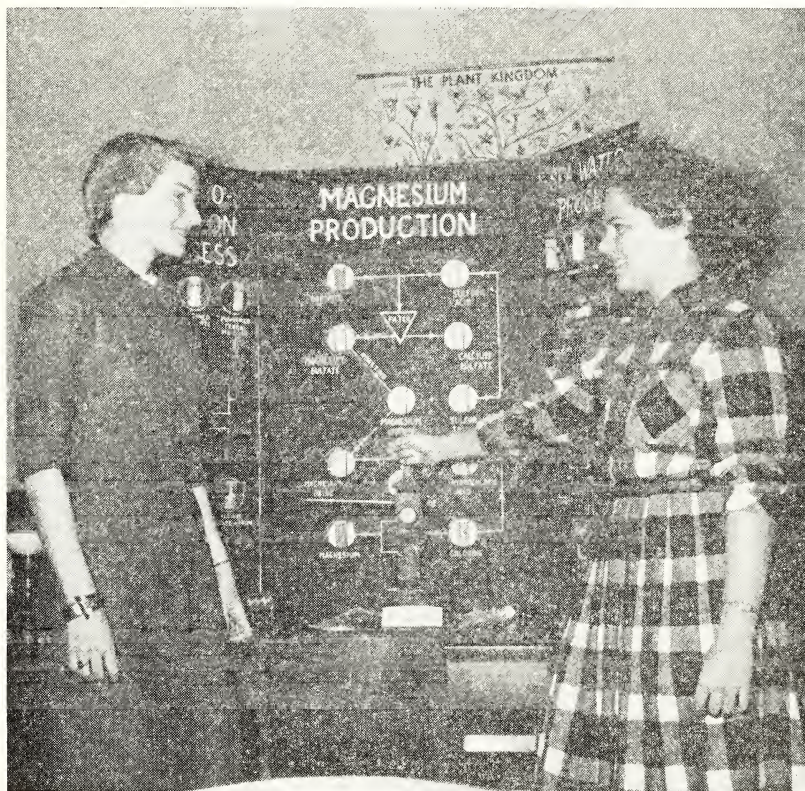
The president introduced Margaret Reynolds, Secretary of the Junior Academy. Vice President Wilfred Day, Our Lady of Providence High School, Clarksville, was not present. Thirteen science clubs responded to roll call read by the Secretary. It was announced that two



new clubs were added in 1957 which included the Science Club, Shawe Memorial High School, Madison, and the Guerin Science Club, Ladywood High School, Indianapolis.

The minutes of the 1956 meeting were read by the Secretary and approved.

The next item of the business meeting was the election of officers. A list of nominees was submitted by the Council from names received from club sponsors and nominations were accepted also from the floor.



Officers of the Junior Academy for 1957 examine one of the Exhibits presented at the Annual Meeting. (l. to r.) Margaret Reynolds, Secretary, and Betty Jane Gough, President.

The officers for 1958 were elected as follows: president, Tom Joyce, Science Club, Central Junior-Senior High School, South Bend; vice-president, Terry Meyers, Junior Explorers of Science, Lebanon High School, Lebanon; secretary, Judy Francisco, Science Club, New Castle High School, New Castle.

Miss Edith Wallace, reporting for the Council, announced that Mr. Jack Munsee, Council member of University High School, Bloomington, had moved out of the state. Mrs. Mary Gough, New Castle, was appointed to complete Mr. Munsee's unexpired term. Robert Weber,



sponsor of the science club, South Side High School, Fort Wayne, was selected as the new Council member to replace Miss Wallace whose term expired. Each of the five Council members serves a term of five years.

A special award of twenty-five dollars will be given at the 1958 annual meeting to the student writing the best paper on bacteriology or microbiology. The award is being offered by the Society of American Bacteriology. Judges will include one member each from the Society of American Bacteriology and the Indiana Academy of Science. The State Sponsor and Council of the Junior Academy expressed its grateful appreciation to the Society for its interest in providing this award.

Miss Edith Wallace announced also that the selection of the "Best Boy" award in science resulted in a tie. The award for 1957 therefore would go to both Terry Meyers, Junior Explorers of Science, Lebanon High School, Lebanon and Gary Holobek, Science Club, Howe High School, Indianapolis. The "Best Girl" in science award was won by Julia Freeman, Science Club, Howe High School, Indianapolis.

Honorable mention for "Best Boy" in science was received by Dave Swinehart, Albertus Magnus Science Club, Central Catholic High School, Fort Wayne. Beverly Twigg, Adams Walton Club, Adams High School, South Bend, received honorable mention as "Best Girl" in science for 1957.

Professor H. H. Michaud, State Sponsor, Purdue University, introduced Dr. Howard Youse of DePauw University and publicly expressed the appreciation of the Junior Academy for the excellent facilities provided by DePauw University and for Dr. Youse's efforts in helping to make the 1957 meeting a success. Professor Michaud announced that the 1958 annual meeting will be held at Marian College, Indianapolis.

Professor Michaud stated also that the attendance at the 1957 annual meeting was less than it had been during the past five years. Many students and teachers were unable to attend this year because of the flu. Students were urged to strive for better attendance at the next annual session.

An invitation was extended to members giving their science papers during the afternoon program to give the same papers at the Purdue Sci-Math Assembly in November.

Miss Jerry Motley, Science Club Sponsor, Howe High School, Indianapolis, was thanked on behalf of the Junior Academy for her work as editor of the Junior Academy Journal.

Terry Meyers, Lebanon High School, opened the program of papers by explaining the effect of X-rays on the mortality of fruit flies.

"Magnesium Production" was the title of the paper given by James Hartman, Albertus Magnus Science Club, Central Catholic High School, Fort Wayne. He explained the two commercial processes of magnesium production and then a process he had developed.

In the third paper of the afternoon, Beverly Twigg, Adams High School, South Bend, explained how her project demonstrated the effects of thyroxin upon the metamorphosis of the bullfrog tadpole.

An explanation of the M-wing design for planes and its disadvantages was given by Curtis Fischbach, Central Junior-Senior High School, South Bend. His main points were that the M-wing retains low

friction benefits, keeps the center of gravity in the middle of the plane, and does not allow wing twist.

David Swinehart, Albertus Magnus Science Club, Central Catholic High School, Fort Wayne, submitted a paper on "Diamagnetism."

An exhibit of minerals was displayed by William Forgey, Lew Wallace High School, Gary. The minerals were referred to in his talk as "The Third Kingdom."

The next paper, presented by Julia Freeman, Howe High School, Indianapolis, dealt with the effect of the removal of estrogen stimulation on the mammae of male and female mice.

Hazel Cuffey, University High School, Bloomington, highlighted her talk on slime molds with slides. The slime molds, which are unnoticed by most people, are neither completely plant nor animal.

"Terramycin Research on the Reproductive Organs of Chickens" was the title of the paper given by Gary Holobek, Howe High School, Indianapolis.

A motion picture, "A Career in Bacteriology," was enjoyed by all. This informative picture emphasized that a student going into a scientific field needed a well-rounded educational background.

Betty Jane Gough, New Castle High School, gave an illustrated talk on microtechnique. Her talk included the steps in preparing slides of both plant and animal tissues.

The concluding paper was a report entitled "Bio-Con Arboretum." This project was a club project of the Junior Academy of Science Club, South Side High School, Fort Wayne. An arboretum was developed in one of the city parks of Fort Wayne. Trees for planting were obtained by gaining the support and interest of numerous organizations of the city.

Approximately one hundred and eighty science club members, sponsors and guests attended the twenty-fifth annual meeting at DePauw University. There are forty-eight high school science clubs currently affiliated with the Junior Academy. Science clubs are urged to contact the State Sponsor in order that the names of club sponsors and clubs may be kept up-to-date.

After expressing her appreciation to all who helped make the 1957 annual meeting a success, the president, Betty Jane Gough, adjourned the meeting.

MARGARET REYNOLDS,  
Secretary

INDIANA JUNIOR ACADEMY OF SCIENCE CLUBS

FALL 1957

<i>Town</i>	<i>School and Club</i>	<i>Sponsor</i>
1. Attica	H. S., Sci-Math (1949)	J. Claude Daugherty
2. Bedford	H. S., Science (1951)	Elmer Wright
3. Bloomington	H. S. National Scientific Honor Society (1931)	Harold A. Stewart
4. Bloomington	University H. S., Jr. Academy (1938)	

<i>Town</i>	<i>School and Club</i>	<i>Sponsor</i>
5. Chesterton	H. S., Science (1954)	Robert McCord
6. Clarksville	Our Lady of Providence H. S., Phy-Chem (1956)	
7. Clayton	H. S., Jr. Academy (1951)	Howard C. Lewis
8. Crawfordsville	H. S., Up-N-Atom (1950)	David Wells
9. Edinburg	H. S., The Alchemists (1954)	S. C. Harrell
10. Elkhart	H. S., Jr. Academy (1940)	Robert Mahan
11. Fort Wayne	Central H. S., Biology (1940)	Iva Spangler
12. Fort Wayne	Central Catholic H. S., Albertus Magnus Science Club (1952)	Sister Anne Pauline
13. Fort Wayne	Elmhurst H. S., Phy-Chem (1935)	Ruth Wimmer
14. Fort Wayne	North Side H. S., Nature (1936)	Vesta Thompson
15. Fort Wayne	South Side H. S., Jr. Academy of Science (1956)	Robert Weber Don Weaver
16. Gary	Calumet Twp. H. S., Science (1952)	
17. Gary	Edison H. S. Beaker Breakers (1949)	Mrs. Martha B. Connor
18. Gary	Lew Wallace H. S., Biology (1935)	Lola Lemon
19. Gary	Lew Wallace H. S., Klub Kem (1941)	Mrs. Helen McKenzie
20. Gary	Tolleston H. S., Biology (1952)	John Reidel Mr. Moore
21. Gary	Tolleston H. S., Future Scientists of America (1949)	Arthur Kline
22. Gary	Wirt H. S., Biology (1945)	Mrs. Frances Huddleston
23. Gas City	Mississinewa Joint H. S., Science (1936)	Roy McKee
24. Griffith	H. S., Science (1953)	George M. Bunce
25. Hamlet	H. S., Science (1954)	Lawrence Cushman
26. Hammond	Morton Jr. H. S., Science (1949)	Nancy Lou Ritter
27. Hobart	H. S., Science (1952)	Lola Stewart
28. Indianapolis	Ladywood H. S., Guerin Science Club (1957)	Sister Mary Blanche
29. Indianapolis	Shortridge H. S., Naturalists' Club (1947)	

<i>Town</i>	<i>School and Club</i>	<i>Sponsor</i>
30. Indianapolis	Shortridge H. S., Science (1931)	Mrs. Henrietta A. Parker
31. Indianapolis	Technical H. S., Nature (1932)	Charles E. Russell
32. Indianapolis	Howe H. S., Science (1949)	Jerry Motley
33. Indianapolis	Washington H. S., Science (1931)	Mrs. Elizabeth H. Crider
34. Lebanon	H. S., Jr. Explorers of Science (1953)	Helen E. Reed
35. Madison	Shawe Memorial H. S., Science (1957)	Theodore A. Winkel
36. Marion	Martin Boots Jr. H. S., Biology (1953)	John Clevenger
37. Mishawaka	H. S. Science (1936)	Darl F. Wood
38. New Albany	H. S., Science (1935)	Erwin Steinkamp
39. New Castle	H. S., Science (1947)	Betty Jo Montag
40. New Haven	H. S., Phi-Chi (1954)	Keith Hunnings
41. Richmond	H. S., Science (1950)	Kathryn Coulter
42. Rossville	H. S., Science (1954)	Martin Silverthorn
43. Sandborn	H. S., Up and Atom (1954)	Paul D. Carter
44. South Bend	Central H. S., Jr. Academy of Science (1939)	A. L. Smith V. C. Cripe
45. South Bend	John Adams H. S., Adams Walton (1953)	Ernest Litweiler
46. Sullivan	H. S., Camera (1939)	Ruth Hinkle
47. Terre Haute	State H. S., Senior Science (1939)	Russell McDougal
48. Valparaiso	H. S., Science (1931)	